

Worldradio/NEWS

Vol. 2, No. 7

April 1973

50¢

Ham operator hears Guatemalan plea

RESULT: President Nixon Orders Air Force to Victim's Aid

MERCY FLIGHT

by John Mosqueda
Los Angeles Times Staff Writer

A young man was bleeding to death on a hospital bed in Guatemala, and doctors were unable to staunch the flow completely.

German Daniel Corso, 20, a hemophiliac, suffered an injured leg in a traffic accident in Guatemala City Wednesday. Doctors were forced to amputate the leg.

They gave him plasma, and hoped, but Corso continued to lose blood steadily.

As the young man lay dying late Saturday night, ham operator Harold Walker, (WA6TSK) of Canoga Park was tuning around on his radio. He was hoping to make contact with Australia, when he stopped to listen to the excited voice of a woman with a Spanish accent.

The woman, Anna Maldonado, of Guatemala City, was telling an Arcadia ham, Peter Grillo (W9LVT/6), how a hemophiliac was dying and no medicine was available to stop his bleeding.

Breaks Into Transmissions

Grillo and another local ham, John Alexander (K6SVL), of Palos Verdes Estates, were wondering how to find a doctor who knew where the medicine was available. Walker broke into the transmissions.

"I know a doctor," Walker told them. "I'll try to get him."

It was just after midnight Sunday morning when Dr. Don Michaelson got to Walker's home and on the radio. After talking with Mrs. Maldonado, he knew young Corso needed a medicine called Proplex, which came from a Los Angeles laboratory.



Harold Walker, WA6TSK, and Dr. Don Michaelson (Photo by Ward Hill, WA6FUH)

Doctors attending Corso also knew he needed Proplex, but they did not know exactly where to find it immediately, and the plasma, though it was helping Corso, was not enough.

Dr. Michaelson remembered where the medicine could be obtained; he ordered it from Hyland Laboratories in Glendale.

The problem then was rushing it to Guatemala. Dr. Michaelson decided to call the Coast Guard; he was told such a flight could not be made. An officer at Travis Air Force Base in Fairfield, California, told him:

Calls Capitol Hill

"It would take higher authority to authorize the flight. Perhaps even the highest authority."

Dr. Michaelson looked at his watch. It was 5 a. m. here, 8 in Washington. He phoned Capitol Hill and asked for Herbert G. Klein, White House director of communications, telling the operator, "This is Dr. Don Michaelson. . . it's an emergency."

Klein took the call at home.

At 10:30 a. m. Dr. Michaelson was at Hollywood-Burbank Airport with three boxes containing 15 vials of Proplex, which were placed aboard a C-130 from Travis and promptly flown away.

When Dr. Michaelson got back to his own home in Canoga Park it was after noon. He had been gone 12 hours, and his wife had been taking calls for him from the White House and the Pentagon. The doctor had not had a chance to tell her what was going on.

"I had a lot of explaining to do," he said.

Klein told Los Angeles Times Washington Bureau Chief John Lawrence that it was President Nixon himself who had approved the dispatch of the plane from Travis, and ordered Air Force officers to cut the red tape involved in getting the plane across Mexico and into Guatemala.

Dr. Michaelson and Walker were left with a wonderful feeling of accomplishment - and, on the face of it, considerable debts.

(Turn to page two, please)

115 Content St.
Plush, Mich. 48833



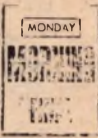
Newsfront



Allende Foes Winning in Chile

LATE SPORTS

Los Angeles Times



MERCY FLIGHT

Nixon Orders Air Force to Save Youth

WRITERS DIARY
China Travel:
10 Days Rich
in Impressions

FOES OF ALLENDE
APPEAR ON WAY TO
VICTORY IN CHILE



End of Gaullist Rule
in France Seen in
Leftist Vote Surge

136 More U.S. POWs Released;
Return Now at Half-Way Point

Guatemalan
Plea Heard by
Ham Operator

FEATURE INDEX

25 MINUTES - THEN DEATH
Envoys' Farewell Notes Told

THE WEATHER

(Continued from page one)

The Glendale laboratory, which is manned round-the-clock for such emergencies, needed someone to sign for the medicine. Dr. Michaelson, 50, an emergency room physician at Canoga Park Hospital, signed - for \$600.

All the long-distance calls to arrange the flight - more than a dozen - were made on Walker's phone. Walker, 53, a film sound technician, has not worked steadily in almost two years.

But they weren't worried Sunday evening after they got the word: the C-130 had delivered the Proplex to Guatemala City and the medicine was being given to young Corso. Doctors said he would recover.

"I'm dead tired," Dr. Michaelson said. "But right now, I sure feel good inside."

(From the "Los Angeles Times")

Amateur radio operators appreciate the coverage given by the L. A. Times. This outstanding newspaper is also to be congratulated for (in a day when many news sources banner man's inhumanity to man) featuring man's finest act - that of saving a human life. While the Times displayed an activity amateurs are often involved in, L. A. City Councilman Joel Wachs wants to ban amateur antennas in residential areas. Les Lester, W6LHQ, is following the case and will report here in WORLD RADIO.

Washington Report: FCC



In the Matter of

Amendment of Section 0. 485 and Appendix 1 Part 97 of the Commission's Rules regarding radio operator examination points

ORDER

Adopted: February 7, 1973
Released: February 12, 1973

By the Commission: Commissioner H. Rex Lee absent.

1. The Commission has before it the desirability of amending Section 0. 485 showing the location of the Field Engineering Bureau's examination points for amateur and commercial radio operator licenses.

2. Authority for the amendment is contained in Section 4(i) and 303(r) of the Communications Act of 1934, as amended, Section 552 of the Administrative Procedure Act and Section 0. 261(a) of the Commission's Rules. Because the amendment is procedural in nature, the prior notice and effective date provisions of Section 553 of the Administrative Procedure Act do not apply.

3. IT IS ORDERED, that effective February 21, 1973, Parts 0 and 97 of the Rules and Regulations are amended as set forth in the Appendix hereto.

By: Ben F. Waple, Secretary FCC

APPENDIX

S. 0. 485 (Amended)

The semi-annual examination points listed in 0. 485(c) are amended by adding in the appropriate alphabetical order, the city of Helena, Montana, and the annual examination points are amended by deleting Great Falls, Montana and Helena, Montana.

Part 97 - Appendix (Amended)

The semi-annual examination points listed in Appendix 1 are amended by adding in the appropriate alphabetical order the city of Helena, Montana. The annual examination points listed are amended by deleting the cities of Great Falls, Montana and Helena, Montana.

(Turn to page 15, please)



February 22, 1973

ATTENTION DXers:

Upon recommendation of the ARRL DX Advisory Committee, effective September 1, 1973 the DXCC Phone Award will be discontinued. Those holding Phone DXCC will continue to receive credits when submitting endorsements. However, these credits and those previously given will be considered as the General-Type DXCC only. November 1973 QST will be the last issue to show listings for the DXCC Phone, for credits made for the month of August, 1973. The current listing of DX Advisory Committee members appears on page 78 of January QST. Additional details page 115 of the March issue.

March 1, 1973

FCC announces a further postponement in deadlines for filing comment on its proposal to raise licensing fees in virtually all radio services, Docket 19658. New dates are March 14 for initial comments and March 28 for reply comments. Under the proposals, fees for new, renewed, modified and renewed or upgraded amateur licenses would be ten dollars for five years. Modifications would cost five dollars. Other fees and exemptions would remain unchanged. The League will be filing its opposition before the deadline. See page 10 February and page 78 March QST for other information on the subject.

March 8, 1973

The colorful new ARRL Satellite DX Achievement Award is proving to be a popular goal for many users of Oscar 6. To date, 38 amateurs in 6 countries have met the requirements. To qualify, 1000 points must be accumulated. Contacts count 10 points, each new country 50 points and each new continent 250 points. Contacts via the satellite must have taken place on or after December 15, 1972. Application forms are available from ARRL, 225 Main Street, Newington, Connecticut 06111. Further details page 58 December QST.

March 15, 1973

With the coming of the travel season, amateurs will be taking advantage of reciprocal operating agreements. Amateurs traveling across the Canadian/U.S.

(Turn to page 41, please)



Amateur Radio is more than communication-It's a service



eye bank net

A message came across the ham bands the other day reporting that a 16 year old boy in Tucson, Arizona was going to lose the sight of his eye because of an infection which had resulted in a perforated cornea. A ham in Baltimore responded that fresh eye tissue was available for a cornea transplant, thanks to a donor who had willed his eyes at death to the Baltimore Eye Bank. The Tucson hospital telephoned the Baltimore Eye Bank and made arrangements for immediate shipment of the precious eye tissue.

The most impressive thing about this story is that the above incident is not just an isolated case. Over 6,000 eyes have been handled in just this manner in the past ten years by the Amateur Radio Eye Emergency Net. It is one of the finest demonstrations of amateur radio public service.

The idea for the net was conceived by Dr. Al Braley, WØGET, a ham and ophthalmologist at the University of Iowa, when one of his patients lost his sight because no donor eye tissue was on hand for corneal surgery and none could be located after a number of telephone calls. Many people have willed their eyes to the eye banks, but getting the eyes to the right place at the right time was a major problem. Eyes must be removed within

hours after a donor dies and the operation must be performed within 48 hours. Obviously, inexpensive and effective communications was the only hope for many people who might have their sight saved or restored by this remarkable operation.

Dr. Al and Ted Hunter, WØNTI, went to work on developing an amateur radio net, arranging for one amateur in each major city which had an Eye Bank to check in once a day with a report on the need for and the availability of human eyes. Within the first three weeks of net operation, three emergencies arose and an eye was furnished for each within 24 hours. Since that humble beginning in December of 1962, the net has grown to include over 100 hams in 38 states checking in twice a day; and at the beginning of this year, the net had been responsible for arranging delivery of 6,227 eyes for emergency eye surgery.

Basically, an Eye Bank is an organization to collect human eyes, which have been willed by donors or the next of kin, and to distribute them to hospitals where a cornea is needed for grafting or transplanting. Eye Banks are maintained in most major cities. In the Washington, D. C. area, for example, the Eye Bank is maintained by the Lion's Club. Eyes are neither bought or sold at any level, and all those concerned donate their services to insure rapid transit of the eyes to the operating table. If there is no immediate need, eyes are used for research or, under comparatively new techniques, may be preserved for use in future emergencies.

When a need is reported through the Eye Emergency Network, the local Eye Bank arranges for the Red Cross or State Police to transport the tissue to the airport. All major air lines give hand-carried priority

to the package until it is delivered to the courier from the designated hospital and rushed to the doctor whose patient is waiting to have the operation performed.

Donation of eyes, of course, is still the most essential part of the Eye Bank program. A file of eye donors is maintained by the Lion's Club and a wallet card is issued advising of the intent to donate eyes. If you wish to be a donor, you should register with the Lion's Eye Bank and advise your physician of your intentions so that arrangements can be made without delay. This also relieves your family of the difficult decision.

The operation of the Eye Emergency Net is something unique to amateur radio. A typical net session lasts from 10 to 15 minutes. Net control calls for reports of any emergency needs and availability of eyes. Then, when all traffic has been recorded, a roll is called alphabetically by city and each station in turn acknowledges receipt of the traffic. This is not an "open" net and definitely NOT a rag chew net. Each net member is a designated contact for the Eye Bank and they want to restrict their contact to only one or two regular, reliable operators. The primary contact may designate alternates to assist him whenever he is unable to meet a scheduled session, but additional check-ins serve no useful purpose and only delay the net operation. If you think you would like to participate, listen. Ask questions AFTER the net session is completed. If you can hear most of the net stations and if you have a station that can be heard easily by them, call the local net representative and let him know you would be willing to help out whenever he needs an alternate. The present representative for the greater Washington, D. C. area is John F. de Bardeleben, W4TE. Regular assistance is provided by William Parrott, W4URL; Ethel M. Smith, K4LMB and Jesse F. Moore, W4JJF.

To get further information on the eye donor program, call the Lion's Eye Bank in Washington, D. C. at (202) 833-1661.

(From "AUTO-CALL")

Betty Smothers, WA6GCS

The Alameda Chapter of the Red Cross continued to be a bee hive of activity yesterday, coordinating relief work for victims of Wednesday night's jet crash disaster.

In a front room of the chapter house at 2017 Central Ave., four women were busy answering phones that never seemed to stop ringing.

Mrs. Betty Smothers, a Concord housewife, was operating the ham radio linking workers at the crash scene at 1814 Central with the chapter house.

And on the couch, Daniel Difraia, a volunteer from Oakland, snored loudly as he caught some much needed rest.

In the kitchen in back of the house, a group of women was busy preparing food and big urns of coffee to be taken to workers at the crash site.

In a separate building in back, two women were busy sorting and folding the donations of clothing that nearly filled the room.

"The response has been tremendous. We've had countless offers of help and donations of money, clothing and food," said Mrs. Martha Killebrew, chapter director.

The biggest problem was reaching the victims of the disaster. "They have to contact us," Mrs. Killebrew explained. "We have no way of knowing who they are."

"We want to help people with their immediate needs. We're able to do this. We just want them to let us know who they are."

The chapter house remained open all night. Ten families already have received aid. The house would be open during the day today and Sunday, she said. She urged those people needing help to "just walk in" or call the chapter at 222-7711.

Mrs. Marie Mullen, in charge of the more than 100 volunteers, said the chapter has received telephone inquiries about the survivors of the disaster from people throughout the state and across the country. Inquiries have also come from sailors aboard Navy ships, she said.

Mrs. Mullen also reported tenants who survived the destruction of the Tahoe Apartments, and tenants forced out of adjacent damaged buildings, have scattered. Some are staying with relatives and some with friends, she explained. (Turn to page 18, please)

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They gave him plasma, and hoped, but Coran continued to lose blood steadily.

At the young man's dying late Saturday night, ham operator Harold Walker, WA6TSK of Canoga Park was tuning around on his radio. He was hoping to make contact with Amradio, when he happened to listen to the excited voice of a woman with a Spanish accent.

The woman, Ana Maldonado, of Guatemala City, was telling an Arevalo ham, Peter Gille (WB4TT), how a hemophiliac was dying, and no medicine was available to stop his bleeding.

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Gille and another local ham, John Alexander (K6SVE) of Palms Verde Estates, were wondering how to find a doctor who knew where the medicine was available. Walker broke into the transmission.

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Harold Walker, WA6TSK and Dr. Don Michaelson (Photo by Ward Hill, WA6FUG)

Doctors attending Coran also knew he needed Proctite, but they did not know exactly where to find it immediately, and the plasma, though it was helping Coran, was not enough.

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(Turn to page two, please)

Participants Communicate



Worldradio Subscriber roll furnished to further your acquaintance with others of mutual interests.

(Continued from last month's issue)

- Ed Yoder, W3YMB, Linthicum, MD
- Keith Rouse, WA6HMM, Rancho Cordova, CA
- E. H. Lindemann, WA0WLE, Minneapolis, MN
- William Whitlow, WB6LRQ, San Francisco, CA
- Gary Knutson, WB0ASO, Vincent, IA
- John D. Fageol, Long Beach, CA
- W. R. Burrows, WA2FLT, Verona, NY
- Randy Chesnutt, WA6JPL, San Luis Obispo, CA
- Gary Ottinger, WB5EMM, Albuquerque, NM
- Don Gongaware, WA6KOT, Citrus Hgts, CA
- Dale Mooney, WA6DLA, Bakersfield, CA
- Donald Simonsen, K7GHZ, Centralia, WA
- Howard Bell, WA6REA, Catheys Valley, CA
- Archie Fast, WB6VSV, Fresno, CA
- Joseph Forth, WA2TRT, Cheektowaga, NY
- Phillip Sanders, WB6ZPO, Carmichael, CA
- R. C. Wagner, WA6SCV, Oceanside, CA
- Ross Glover, ZM2AYI, Gisborne, N. Zealand
- J. V. Hartshorn, W6MYT, Sacramento, CA
- Lee Shaklee, W6BH, Oakland, CA
- Reuben Gross, W2OXR, Staten Island, NY
- R. N. Dyruff, W6POU, Santa Barbara, CA
- Roy Silvester, WN6TKE, Monterey, CA
- Mat Gareau, 7P8AD, Lesotho, Africa
- Eugene Root, WB6OOO, Atherton, CA
- Scott Mace, WN6GMD, Woodland, CA
- Jim Kohn, WA9OYR, Dolton, IL
- Lee Delworth, WB6RDW, Lompoc, CA
- C. R. Patrick, W6OZE, Mariposa, CA
- Eugene Walter, W2CP, East Meadow, NY
- Charles A. Max, K6LM, Oakdale, CA
- B. L. Boots, WB6TXC, Woodland, CA
- W. G. Winkler, W5SUU, Las Cruces, NM
- Marcia Rast, K6DLL, Fair Oaks, CA
- Palmer Black, WB6QLY, Lompoc, CA
- Dan Blackburn, K5ZCO, Dallas, TX
- J. Alan O'Neil, W6GIS, San Francisco, CA
- Earle Snider, K6TST, Pebble Beach, CA
- Howard Ettinger, WB4NJJ, Sarasota, FL
- Thurman Baxter, WA6QNC, Sacramento, CA
- Chester Ullom, W6BDW, Nevada City, CA
- H. C. Spaulding, K6GMI, Dsrst Ht. Sprgs, CA
- Jim La Frieda, WB6AML/8, Ann Arbor, MI
- Lowell Fink, K6SKA, Pacific Grove, CA
- Robert Bignami, Orland, CA
- Thomas Montag, St. Bernard, OH
- Ed Baker, WA6ZSB, Hanford, CA
- John Miller, WA6FNJ, Pomona, CA
- Edward Doherr, W7IUZ, Sequim, WA
- John Schmid, WA6PGA, Lompoc, CA
- James Menzmer, K6QCV, Sacramento, CA
- Ray Clark, WB8BUF, Cincinnati, OH
- Ralph Perkins, WA6NMA, Greenfield, CA
- David Pierce, Goleta, CA
- Rufus McCracken, W4YJK, Honolulu, HI
- John C. Hill, WN6IXG, Pacific Grove, CA
- P. Scanlan Freeman, K6RFT, Modesto, CA
- TSgt John Sullivan, WA4KUK, LowryAB, CO
- Raymond Hill, WN6HDD, Reedley, CA
- V. K. Daniels, WN6RTJ; Jim Daniels WA6BTE, Seaside, CA
- Mike Russell, WB5CSO, Albuquerque, NM
- Gordon Wenz, W6BGF, San Diego, CA
- Earle Pollock, WA6OSQ, Long Beach, CA
- Uve Lammers, DL9WZ, Chelmsford, MA
- Charles Simmons, K0MOH/6, Atwater, CA
- Ray Hirsimaki, WA6JHB, Cambria, CA

(Continued in next month's issue)

Letters



It is time that ham radio throughout the world had a newspaper to speak in behalf of Amateur Radio. I am glad it points out the many fine things done by hams and the many things we could do if more of the gang would just get off their duff. Ham radio has for very long needed such a newspaper, and I often hear comments about it on the air. I am overseas most of the time as a radio officer in the merchant marine and the comments I hear are very favorable... Thomas Pauley, W6LIQ

You certainly are to be commended on such an informative and superlative job in rounding up such interesting news pertaining to communications by Amateur Radio in its various aspects. C. J. Casebeer, K6QF

Your publishing venture is handled very well. The articles, editorials, advertisements and regular features are well planned, factual, brief enough to interest and prepared well enough to digest. In all, I feel that your paper is a tremendous asset to Amateur Radio. Vern Weiss, WA9VLK-WA4BBO

Amateurs have needed a paper of this kind. The ads are good and the news is what is needed... W. R. Shade, Sr., K7LYG

May I congratulate you on the job you are doing with your paper... it looks good, it reads good, it is good! All of which is especially surprising for an 18-month-old baby! The mind boggles when one considers the possibilities of what your "baby" will be doing when it reaches its full growth. Congratulations to all those involved. John and Martha Hendrixson, WA7PUC and WN7PUB.

We have decided to subscribe to your paper to be better informed of events in the realm of Amateur Radio public service. Our club dates back to 1919, and with our increasing involvement in emergency and public service communications, we feel a need for more current news... Bob Palitz, WB2FEH; Secretary/Treasurer, Caltech Amateur Radio Club, W6UE

Ham radio has been long overdue for something like WORLD RADIO. Hope you prosper... Ade Weiss, K8EEG

The March issue was a masterpiece. You've done more for ham radio in the time you've published WORLD RADIO than some have in many years..... Pat Philippi, WB9DDA

I can't express how happy I've been watching the growth of WORLD RADIO. It is fantastic... Doug Stivison, WAKWJ/6

An International Newspaper
Second Year of Publication

Around the World
Worldradio
"the people paper"
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INFORMATION

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WORLD RADIO is two-way communication. Send in Amateur Radio news and information. Share your knowledge and experiences with your fellow amateur.

Article contributions, advertising inquiries, comments and suggestions are invited.

STAFF

- Armond Noble, WB6AUH
- Norm Brooks, K6FO
- Craig Rutledge, WB6NUM
- Ken Welsh, WB6FKV
- Sid Hall, WB6BNZ
- George Fong, WB6DTZ
- Annabelle Johnson

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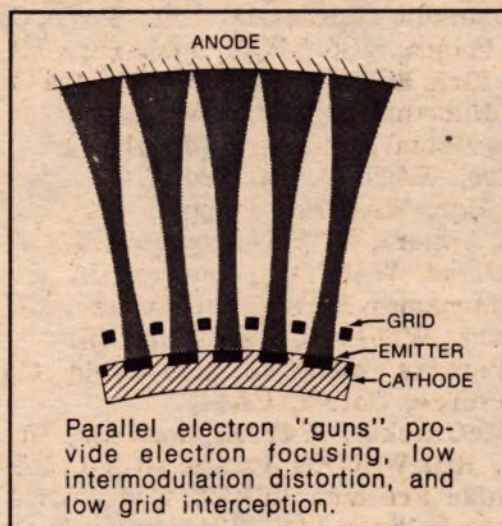
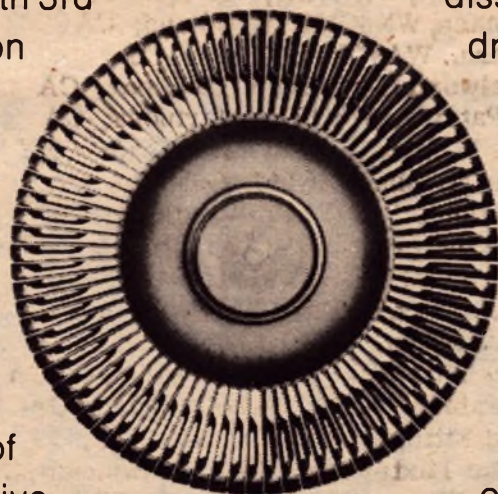
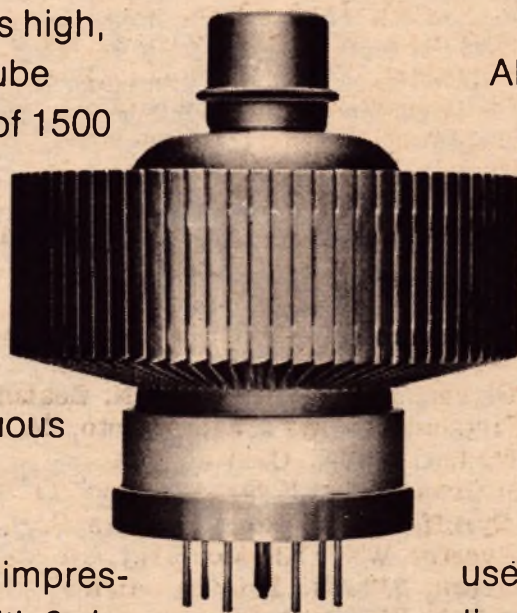
EIMAC's new 8877 high-mu triode delivers over 1500 watts output at 220 MHz. (2000 watts output at 30 MHz is easy)

On your right is the new, rugged, ceramic/metal 8877 high-mu power triode by EIMAC. Another state-of-the-art tube. Only three and one-half inches high, this low-profile, heavy-duty tube has a plate dissipation rating of 1500 watts, a maximum plate voltage rating of 4000 and a maximum plate current rating of one ampere. In the HF region, typically, the 8877 coasts along at a continuous duty level of 3500 watts PEP input. A peak drive signal of only 65 watts is required. This impressive power gain is achieved with 3rd order intermodulation distortion products — 38 decibels below one tone of a two equal-tone drive signal.

This magnificent power triode is rated at full input to 250 MHz. The low impedance grid structure is terminated in a contact ring about the base of the tube, permitting very effective intrastage isolation to be achieved up to the outer frequency limit of operation. The close tolerance grid, moreover, is composed of aligned, rectangular bars to achieve maximum grid dissipation and controlled transconductance. This aligned grid, plus the

EIMAC segmented, self-focusing cathode provide low grid interception and the low grid drive requirement; both of paramount importance in the VHF region. Although primarily designed for superlative linear amplifier service demanding low intermodulation distortion, the 8877's high efficiency permits effective operation as a class C power amplifier or oscillator, or as a plate modulated amplifier. The zero bias characteristic is useful for these services, as plate dissipation is held to a safe level if drive power fails, up to an anode potential of 3 kV.

The sophisticated circuit connoisseur will appreciate the many advantages of this newly developed power tube. Write for detailed information. And remember — the 8877 is another example of EIMAC's ability to provide tomorrow's power tube today. For additional information on this or other products, contact EIMAC, 301 Industrial Way, San Carlos, California 94070. Phone (415) 592-1221 (or call the nearest Varian/EIMAC Electron Tube and Device Group Sales Office.)



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division
varian

Walk-A-Thon Talk-A-Thon

by Claude Goldsmith, WB6UOO

Santa Clara Valley VHF Relay Society

Communications for the March of Dimes Annual Walk-A-Thon, held in the San Jose area on March 11, was provided by members of the Santa Clara Valley VHF Relay Society, through the facilities of WB6OQS a .16/.76 machine. Over 600 messages were handled as the club coordinated and provided communications between eight checkpoints, the start-finish point, the March of Dimes and National Guard personnel. Local broadcast stations were supplied with information which was relayed to the many marchers carrying broadcast-band portables. Local law enforcement agencies were periodically advised of problems along the route from information supplied by five roving mobiles that continuously patrolled the twenty-mile route.

In addition to communications, club members participated in the transportation of needed medical supplies to the teams of

doctors working at each checkpoint. A volunteer ambulance had one of the WB6OQS personnel, equipped with a portable, along as a rider.

For many members, the day started at 0700 and ran non-stop to 2100. Although the Walk-A-Thon officially ended at 1730, by 1700 it was obvious that the nine pay phones installed at the finish would not be adequate to handle the calls for those among the 25,000 walkers who needed to contact their parents for transportation home. Base stations equipped with telephones accepted phone messages in blocks of ten from portables and mobiles at the finish area. This continued until all but a dozen people were left waiting for their rides.

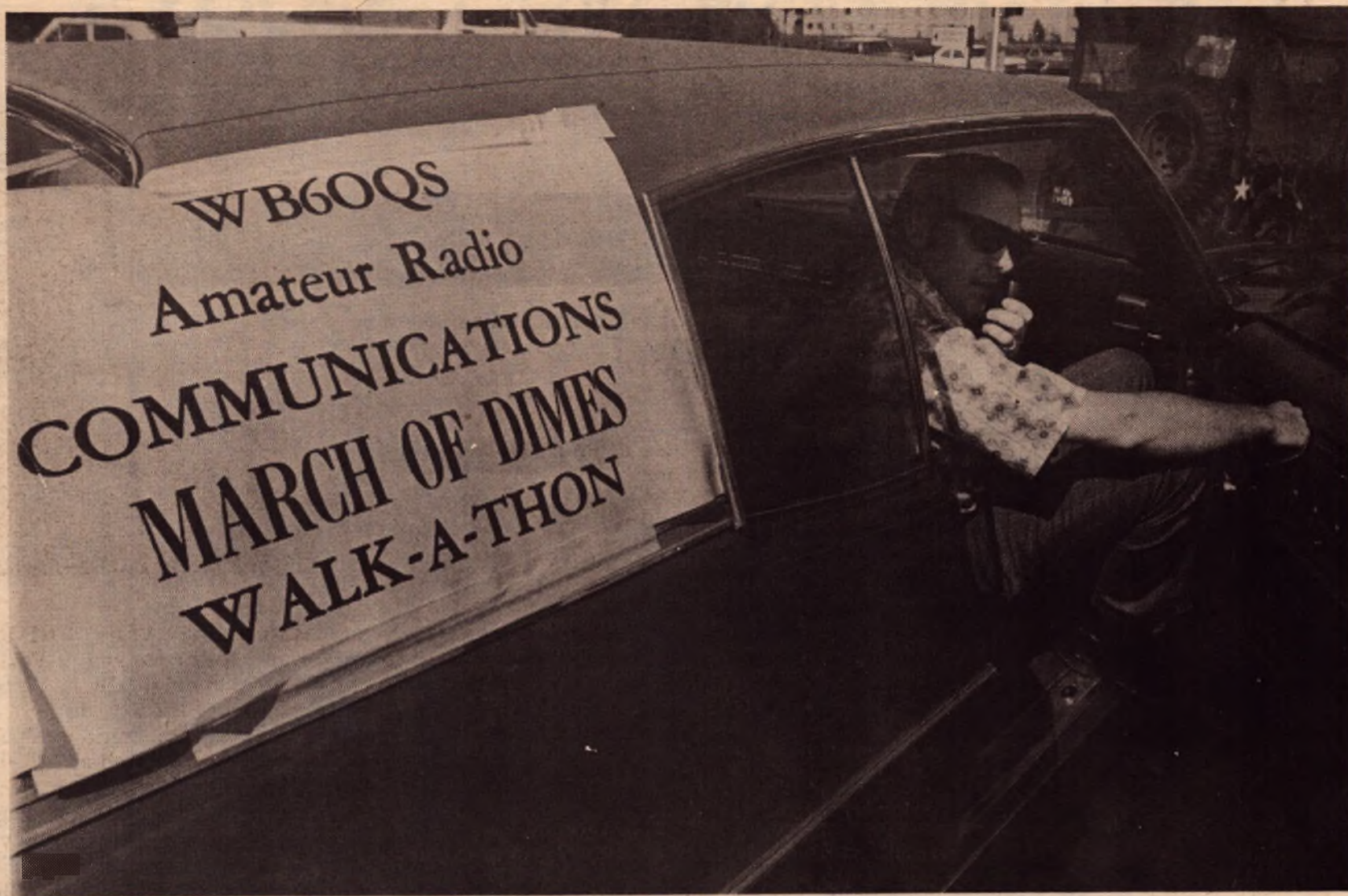
A base station was used as a centrally-located control center which would have been able to take over the relay of messages had there been any problem with the repeater.

The value of portable equipment in conjunction with a well-situated repeater was admirably demonstrated during the Walk-A-Thon. Members equipped with HT-220 HT-200's and TR-22's were able to get out where the problems were, but still were in full communication at all times with the control center.



The Santa Clara Valley VHF Relay Society was first organized in February of 1965. The club originally had a two-meter AM repeater on the air. In 1967, the present .16/.76 FM machine was put on the air. WB6OQS is located at 3,800 feet elevation on Mount Chual, twenty miles south of San Jose and provides coverage of the San Francisco and Monterey Bay areas. The repeater is open, though under membership control, and requires 2400 Hz tone burst for access.

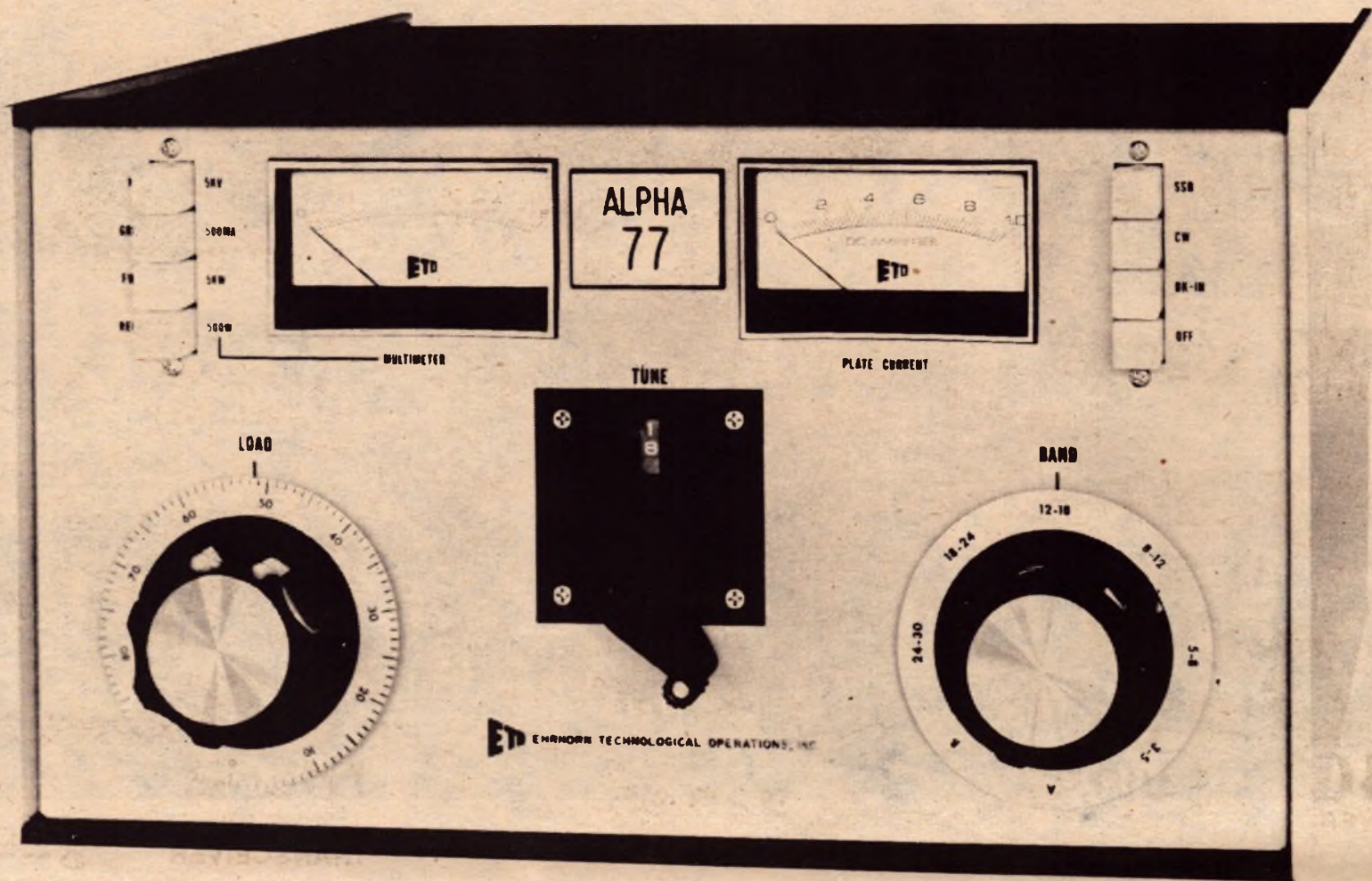




Claud James, K6IAQ, with the local March of Dimes poster boy.



FOR THE MAN WHO ENJOYS OWNING THE VERY FINEST...



THE NO-COMPROMISE ALPHA 77 MAXIMUM LEGAL POWER LINEAR AMPLIFIER

- LOAFS AT CONTINUOUS MAXIMUM LEGAL POWER IN ANY MODE
- DRIVES EASILY WITH ANY POPULAR EXCITER OR TRANSCEIVER
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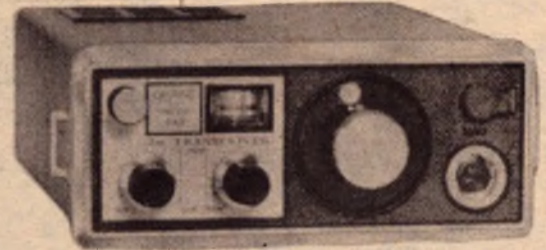
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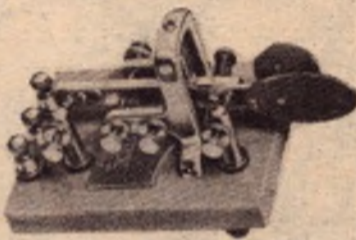
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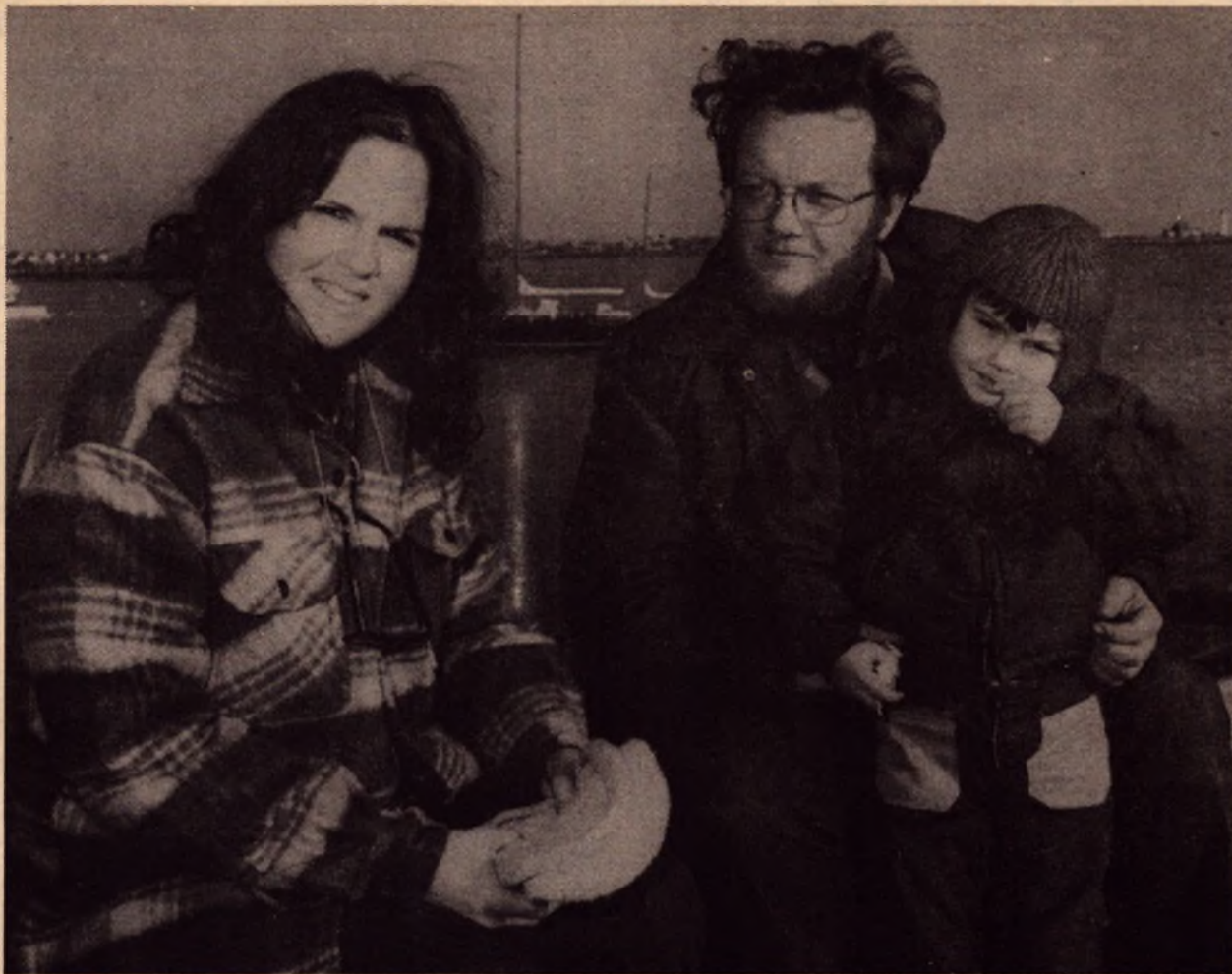
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Elaine and Raymond McKeever, WA1LUT and W1WJR

Hams Go to Sea

by Barbara Firger

A small boat, the first of a fleet with a big mission, sets sail next summer.

She's THE ECOLOGIAN, a trim, deep green 43-foot R. G. Henry yawl, and she belongs to Seabourne Ecology Associates (SEA-INC), a group of private citizens with a mandate to inform the world about the plight of the oceans.

ECOLOGIAN is a gift to SEA from W. Cooper Willits of Paoli, Pa., treasurer of the Pennwalt Corp. (chemicals) in Philadelphia. He dubbed her SANDERLING and sailed her for eight years after she was built in Bremen, Germany.

Aboard for her maiden cruise under her new name will be SEA's president, 34-year-old Raymond (Tom) McKeever, WIWJR; Elaine McKeever, WAILUT, and their five-year-old son, Ray of Norwell, Mass.; a marine biologist (as yet unchosen), and Mary Hight, a soon-to-be-graduate of Norwell High School.

Their course is still uncharted and will be drawn according to assignments from scientists, ecologists, and institutions like the Woods Hole Oceanographic in Massachusetts anxious for small-boat seagoing research and documentation on the sorry state of the seas. The first trip will take from two to four years. Amateur Radio will be the main link with the oceanographic institutions and home.

Tom and Elaine, both amateur radio operators say one aim of the mission will be to organize a world-wide band of hams who would monitor incidents such as oil spills and fish kills and report them to a central agency.

While on the trip, the McKeevers will circulate a petition requesting global environmental action. The petitions will be submitted to the United Nations World Health Organization.

Thousands of signatures have already been gathered at ecology fairs in the southeastern Mass. area and from overseas ecology-minded visitors to Greater Boston.

Until recently, Tom was an electronics technician at Sylvania Corp. in Needham, Mass. He tendered his resignation in order to work full-time for SEA.

Elaine, dynamic and expressive, is the director of Educare, a day-care center in Norwell, and is an artist. Her participation in the ECOLOGIAN adventure has special meaning.

"One thing I want to do," she says, suddenly serious, "is keep a journal. I'm a diabetic. If I go for more than 48 hours without insulin, I'll die. I want other diabetics to know that a trip like this, a life of adventure and activity is possible, that they don't have to sit still in one place."

Elaine has been treated for diabetes for half her life and is under the care of the Joslin Institute in Boston which will design a careful, hopefully foolproof program for her. There will be extensive tests and a session in the hospital before the trip.

Even so, the McKeevers are taking a chance and Elaine knows it. THE ECOLOGIAN will have to have a nearly fail-safe refrigeration system to keep insulin doses fresh. And any whim of nature that disturbs the ecology aboard ECOLOGIAN, any blast that blows her too far off course for Elaine to reach medical assistance could spell tragedy.

Last November, the McKeevers and a couple of friends sailed their new home 500 miles in six nights and seven days from Oxford, Md., to Scituate, Mass. She's now in winter storage in Hingham.

SEA was born in the mid-'60's. Tom's own interest in ecology grew from concern about pollution in his own backyard, Jacobs Pond and North River in Norwell.

In late 1970, the loose association of SEA members agreed to incorporate as a nonprofit association and the deed was done in 1971 under the Mass. General Laws. In the spring of 1972, the organization was granted federal recognition as a tax-free enterprise.

SEA will use still and motion picture photography to educate the public and one superperson still being sought is a combination cinematographer/marine biologist/ecologist/sailor. On the first and future voyages, SEA will distribute publications of the federal Environmental Protection Agency (EPA) and will act as a conduit world-wide for EPA-generated films and other educational media.

Right now, contributions of time, money, materials and ships are the first priority. SEA would like to send forth a fleet of small sailing vessels, 38 to 60 feet, to monitor the seas.

According to McKeever, any boat, even one in need of repair would be welcome, THE ECOLOGIAN was a rare find, well-cared-for and in excellent shape. She has a luxurious mahogany finish, two heads, and comfortable sleeping quarters for six or seven.

SEA takes pride in its "self-policing aspect". Its advisory board of directors consists of leaders in the fields of oceanography, business, biology, physical sciences, electronics, medicine, education, government and law, and has the unique power to suspend the operations of the corporation. If the board is dissatisfied with actions or fidelity to SEA's commitment, it can call for an immediate accounting.

"We don't promise we'll be successful in all our goals," says McKeever. "But we do believe we can further the recovery of the world ocean from the ecological shock it's undergoing now."

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"OPERACION RESCATE"

OPERATION RESCUE

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The Christian world was preparing to celebrate Christmas, when, hidden in the darkness of night, tragedy interrupted the Republic of Nicaragua. The destructive force of earthquake tremors almost erased the capital city of Managua from the map.

A short time after the occurrence of the earthquake, Enrique Gabuardi, YN1EGL, made contact with Adrián Espinosa, YN1AEO/W4 of Miami, Florida, vice president of SIRA, on the 20 meter band. Enrique, YN1EGL, was operating mobile from his car, and was the first to inform the world of the terrible catastrophe which had occurred. Adrián, in Miami, lost no time in informing various other amateurs of the Sociedad Internacional de Radio Aficionados (SIRA), including the Society's president, Rafael M. Estévez, WA4ZZG/KP4DNI. Estévez, upon hearing the news, went on the air immediately to analyze the situation and to see what course of action would be best to take in order to be of assistance.

Estévez, after contacting Managua directly and taping the commentary of YN1EGL, immediately contacted Mr. Antonio Arias, head of the news bureau of Radio Station WFAB of Miami. At the request of Arias, Rafael, WA4ZZG replayed the tape which he had recorded, allowing the listeners of the radio station to hear the dramatic voice of Enrique, YN1EGL, asking for assistance and relating what he saw—Managua had fallen to the ground, the cries of the wounded and dying and of those who were being buried alive! And so it was that WFAB through the help of SIRA informed the Spanish-speaking community of Miami of the catastrophe which had occurred in Central America. The telephones of the radio station began to ring incessantly with demands for more information. However, at that time, there was no commercial communication either within Nicaragua or between Nicaragua and the outside world.

By 7:15 A.M. of that fatal Saturday, December 23, the emergency net of the Sociedad Internacional de Radio Aficionados (SIRA) had already been activated, with Germán Ordóñez, HK3CJD/W4, acting net control on 14,220 KHZ.

At the suggestion of Rafael, WA4ZZG, Adrián, YN1AEO/W4, and Germán, HK3CJD/W4, went to Radio Station WFAB to personally co-ordinate the emergency activities. Germán brought his mobile equipment to the station in order to maintain communications with Managua, while Rafael and Adrián were in constant touch by telephone from the studios of WFAB with other hams in Miami.

The radio station became swamped with telephone calls from those wanting information about relatives, and the station itself became crowded with concerned people requesting information. In order to calm the situation, Rafael and Germán went on the air over the microphones of WFAB and informed listeners that at the present time it was impossible to get more information from Managua, because the mobiles there were not then able to maneuver over the roads because of rubble, dying victims, and the intense heat generated by the many fires burning throughout the city.

Rafael, WA4ZZG, then asked Mr. Antonio Arias for permission to make, through WFAB, an appeal to the listeners to bring to the station clothes, food-stuffs, medicines, blood plasma, and anything which would help alleviate the suffering in Managua. Mr. Arias, in spite of great weariness after a long night of work, agreed without hesitation.

At 9:35 A.M. of the same day, Rafael and Germán made a general appeal to the community in the name of SIRA, to collect and deliver necessities for Nicaragua. To the surprise of the personnel of WFAB and the others present, Mr. Alfredo Roche, ex-CO2RR, arrived at the station with his wife in response to the appeal and generously donated \$10.00 to the cause. Mr. Roche, then, as the first donor, initiated a flood of donations of money, medicines, clothes, food, and plasma. Later, other important persons of the community as well as various institutions, together with SIRA, made additional requests for assistance.



In the above photograph are (left to right) YN1AEO, WB4TED, WN4BFL and LU2DZ. The first four members of SIRA to arrive in Managua.

There were scenes of children with their piggy banks, old people bringing wrinkled bills which they had been saving, women with packages and boxes of groceries. All of these were brought to the very same studio where SIRA holds its monthly meeting through the courtesy of Radio Station WFAB.

Calls were received from pilots, doctors, nurses, blood donors, etc. offering their services free in order to help their brother Nicaraguans.

Although the magnitude of the catastrophe was great, the rapid response of the Latin-American community of Miami was even greater; so great that in the vicinity of the radio station, Flagler Street and 18th Avenue, it appeared as if a parade had formed.

Mr. Arias asked Rafael and Germán what name would be appropriate for the operation which was being conducted. Rafael suggested the name "Operation Rescue."

"Operation Rescue" now was underway and increasing minute by minute. Sixteen hours after the first appeal for help, \$8,000 had been collected, as well as tons of necessary articles. The next day the donations increased to \$34,000. The official airline of Nicaragua, LANICA, took on the job of delivering, free of



charge, all of the equipment and articles which had been collected.

By Christmas Day, \$71,000 in cash and three times that value in articles and food had been collected.

Meanwhile, a group of American hams, including K4CAG, Carlos Hernández, one of the directors of SIRA, formed an emergency net on 2 meters, helping with the collection of donations by persons who could not bring them personally to the radio station.

The public, in spite of their many Christmas expenses, were extremely charitable in their donations, and continued giving more and more. The enthusiasm of WFAB and the members of SIRA spread to other radio stations in the community, and they initiated appeals of their own.

"Operation Rescue," originally initiated by SIRA through WFAB, is still active. The public is aware that the survivors of the Nicaraguan tragedy were left in Managua without their belongings, without food, and with only the rubble which once was their home.

SIRA, because of the gravity of the situation, quickly organized a team of radio amateur volunteers which flew to Managua with portable generators and communications equipment.

The first four members of the team to arrive at the disaster were: Adrián Espinosa, YN1AEO/W4 of Miami, Florida, vice-president of SIRA; Antonio Urbizu, WB4TED, SIRA's treasurer (in charge of the mission); Carloz de Felipe LU2DZ/W4, and Jorge Dueñas, WN4BFL. These four members operated the emergency station in Managua on a 24-hour basis, using the call letters YN1SIRA. Frequencies used were 3810, 7160, 14205, and 21285 KHZ. The 2 meter band was also used to communicate locally. They used a jeep and drove through the nearby cities asking the people if they wished to send messages to their relatives outside of Nicaragua.

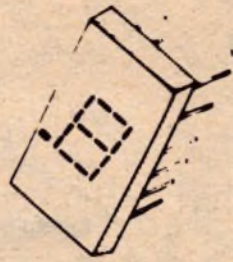
Later, the original group were joined by Francisco Olano, ex-CO8; Guillermo Ruiz, HK4BXY/W4, and Jack Goodwin, VE3DPQ/W4. Hundreds of messages were sent to all parts of the world. These hams did not hesitate to leave their homes and jobs during the holiday season, working without rest, and sharing the misfortune with the residents of Managua. They successfully maintained communications when it was most urgently needed, and proved once again to the public at large, that the well-trained radio amateur, with his equipment, is one of a community's most valuable and indispensable assets in times of emergency.

EDITOR'S NOTE

At the present time, cash donations have surpassed \$120,000, and hundreds of tons of canned food, medicine and plasma have been collected.

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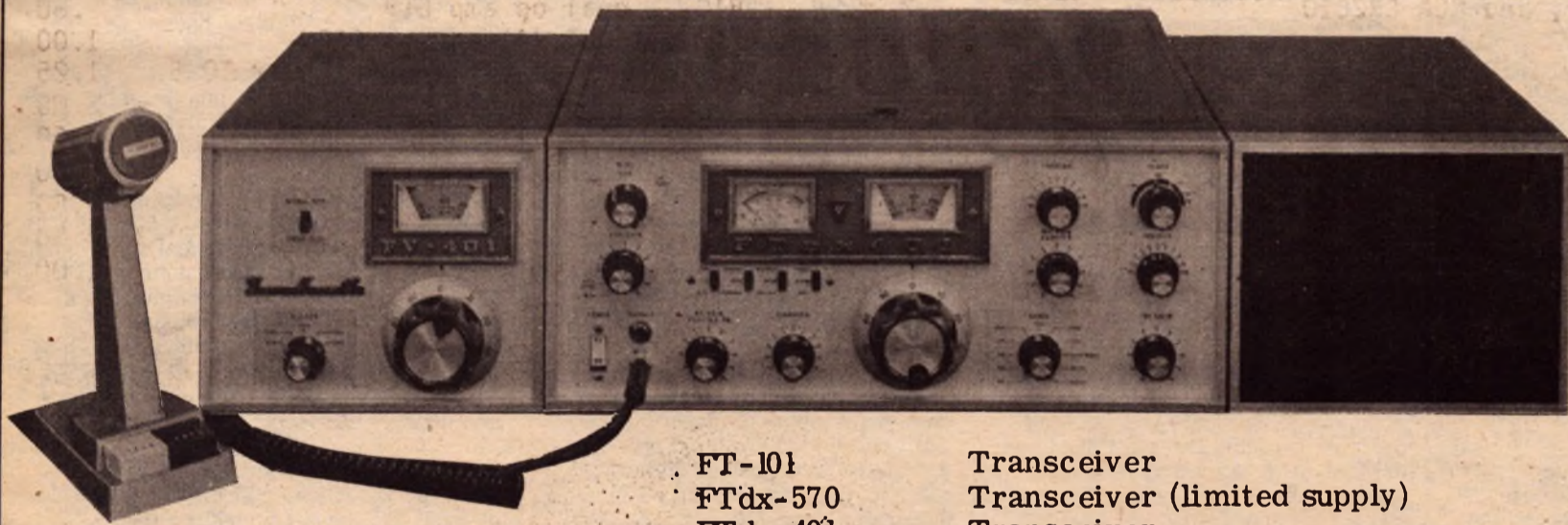


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Spratly

by Geoff Green, VS6DA
and the Spratly Team

The Hams who went to Spratly were: Scotty, XV5AC; Don, HS3DR; Chester, W4EVG; and Pete, HS4AGN - all Americans.

This is Spratly Calling.....

Date: 21st February 1973; Time: 2315; This is ISIA calling CQ.....

The lead up to be in a position to make that call has been no easy path, and it has taken a long time and a great deal to achieve.

For literally years, plans have been formulated and preparations made to put a station on Spratly Island, only to be shattered by one unfortunate circumstance or another. Even this DX-pedition turned back several times in its initial attempts, and for the waiting and listening hams of the world it looked as though Spratly was determined to remain aloof and elusive, relying on the weather to provide its natural defense.

With the fast changing circumstances in the area, the crew was aware that this could be a "now or never venture", and determined not to give in without another attempt, Captain Vic and his very much "ham" matelots set off again, headed by Scotty (with his foot in plaster) but without Phil, VS6DR, who had to return to Hong Kong, and although there were further setbacks, this time the team was successful and the much sought after, talked of, and what had appeared unobtainable, Spratly, came on the air.

To quote one of the operators, "as far as DX-peditions go, this one seemed beset with problems and the propagation played nothing but tricks, we had hoped to work a heap more stations" but as far as the many hams who worked the ISIA call sign are concerned, the expedition was nothing but a success and a credit to the men whose perseverance made it all a reality.

To them we express our appreciation and congratulations, and offer our thanks to the whole Spratly team, operators, controllers, planners, and helpers all.

In 1969 it was hoped to mount a DX-pedition to Spratly, and the "Ohms" of November and December of that year gave details of the plan, but it never materialized and hopes faded away; nevertheless the seed was sown, and the recent expedition was the result of extensive planning and preparation since that time, and there is no question that to even consider a DX-pedition on this scale required massive resources in hams' terms.

Although the credit for the success of the expedition is shared by all the members who made up the team, much of it must go to Scotty who persevered and schemed, cajoled and connived the operation into a reality despite, during the final stages, an injured foot.

It is reputed that the last ham station to be operated from Spratly was that of Danny Weil, and the last survey of the Island was carried out over 20 years ago, so although it is thought that local fishing vessels may call from time to time, and the air route from the Philippines to Malaysia passes close to overhead the Island, very little information was available.

The Island itself is only about 8 feet high and it lies within an area known as the London Reefs, and if you take a line from Saigon to Kota Kinabalu (Jesselton) it is approximately half way between the two. The exact coordinates are: Lat: 8°38'36".1 North, Long: 111°05'52".1 East, which puts it slightly closer to the coast of Vietnam (280 miles) than to the coast of Sabah (300 miles). It is due east of the Island of Con Son which hit the headlines a while back as a "prison island with tiger cages". Depending on whose atlas you look at, the Island is shown as being British, Chinese, (both), Vietnamese (both), Philippino, and one or two others thrown in for good measure. It is uninhabited, that is if you don't count the "wall to wall birds" as Chester described them, and generally as a piece of real estate it leaves much to be desired, except that one thing is for sure - it can't be overlooked!

However, this dot on the map became the focal point of all attentions when, on 20 February at 0930 GMT the team reported that the Island was in sight. Almost immediately near disaster struck, as the boat narrowly missed a submerged reef. Skipper Vic wisely decided to lay offshore and dropped anchor with the Island bearing 320°, and John, Don and Scotty set off to explore their prize in the ship's boat - a Boston whaler. Pete remained on board and kept in contact on the control frequency, and the atmosphere took on lunar characteristics as he gave a step by step account. A disappointed member of the group, Phil, VS6DR, sitting on the edge of his seat, listened from his QTH in Hong Kong.

Eager to commence operations, it was decided to start unloading the gear, but with only a couple of hours of daylight left, it proved to be a mistake, and although the triumphant group was able to put a rig on the air by 1635 GMT on 20 February, it resulted in an incident which almost wrecked the whole operation.

It was fitting indeed that the very first ISIA contact should be with Phil, VS6DR; for years he had dreamed of, and worked on ways to get to Spratly, and only time, the weather and a

touch of the devaluations had defeated him right at the last moment, and although overjoyed at the successful culmination of endless effort, it was small consolation for his not being there.

The first contacts by Scotty on 20 February after Phil were: CR9AK, XV5AC, 4S7PB, HS5AFJ, HS4AGZ, VQ9R, then things started to go wrong.

In understandable enthusiasm at getting a rig on the air, another "rig", the Boston whaler, gained its freedom in the changing tides, and started to drift untended from the Island into the night.

When the mishap was discovered, the whaler was just visible in the dark, and as this vital link between ship and shore had to be re-secured, Pete elected to swim out and bring it back, but the swim was longer than he had anticipated and once on board, by then in complete darkness, he was unable to start the engine and found himself in the unenviable and unbelievable position of being alone in an open boat at night. Although not disoriented, because he could see the light on top of the mast supporting the parachute on the Island, Pete was unable to see the expedition ship "Yankee". With no light he could neither see to start the engine nor signal to the others. Already exhausted from lack of sleep during the outward trip, wearing only a pair of swimming trunks, he had no option but to stay with it, try and remain awake to keep that precious light in sight, and call for help, in more ways than one.

Meanwhile on the 'Yankee', knowing nothing of the disaster Chester, also exhausted from the exploits of the night before, (he had lost his teeth during a bout of sea sickness) had collapsed in sleep; "I'd never known just what it was like to be so exhausted," Chester said. When at last Skipper Vic was alerted as to what had happened to Pete, all efforts to wake Chester failed, and in the end Vic only succeeded by upending him onto the deck and bellowing "EMERGENCY" - a process which nearly sent Chester into orbit.

The worst had happened, and by dawn nothing was in sight. By 2230 GMT on the 20th the alert was on, and the control stations XV5AC, KA6JT, VS6DR and DUIWBT forming a quadrant around the Island, were co-ordinating rescue operations and meteorological services.

At daybreak Pete was on his own, no Island, no ship rewarded his vigil, but in the light he was able to start the engine, and estimating that he had drifted in a generally West to South direction, he headed off into the sun, with all fingers crossed.

Meanwhile the 'Yankee' from its position at dawn, after drifting in the hope of staying in close proximity to the whaler, also started back to the Island. Pete's deductions proved right, and as the courses converged, through strained and bloodshot eyes, Chester, although exhausted, yelled with relief and joy on sighting the whaler with Pete at the helm.

The already over-exhausted team had called on their last reserves to find Pete in the whaler, and as always in such times of crisis, guidance and assistance was sought from that Ultimate of Man, known by many

names. Thus, with the coming of daylight, the crisis was short-lived, and a sunburned Pete was intercepted on his solo round-the-world attempt and brought back to base. The frightening experience was over, someone had smiled, and by the severest method, a lesson the sea had been learned, and everyone slept.

At 2255 GMT on 21 February, after a good night's rest, everyone was waiting for the start of operations, and you could almost feel the presence of the many hams listening and waiting. DX discipline was of the highest order, and at 2310 on the 21st February the MM station informed everyone on the control frequency that the Island station was ready to commence full operations on 14. 195.

At 2315 on 21 February the end and the beginning came - the end of all the preparations, and the beginning of the DX-pedition.

"This is ISIA calling CQ- - - -"

What a tremendous achievement.

From there on the story is one of upside down propagation, resulting in jubilation for some and disappointment for many. In all, 4,500 contacts were made, well below the intended target figure, no mean result all the same, but without question the greatest result was that the team had won through.

Thrice disappointed in initial attempts, reluctantly the 'Yankee' had to turn back twice because of weather, and once because she was taking on so much water. Eighteen hours out on the fourth attempt, at night the double engine failure due to fuel contamination, followed unbelievably by a double mobile generator failure!

The unfortunate Pete gets drenched in fuel oil, and the only way to clean him off is to throw him into the sea! Scotty, with "gammy" foot, determined and resolute, wedges himself in position on the slippery tossing deck and works on the machinery - it really is Spratly or bust. The team's conclusion: There must be easier ways of spending a weekend.

By 0600Z on 24 February, it was all over, Spratly's brief life and excursion into ham radio had expired. "I don't think anyone was sorry to leave the Island," said Scotty; "it's got quite a way to go before it makes the top twenty in the Good House-keeping Holiday Guide."

On reflection, if the results were not all that was expected, it will surely be an incentive for others to attempt to bring the call to life again; after all, in this space age, computerized and programmed world, it is refreshing and thought-provoking to know that man must still come to terms with the elements before he can achieve his goal.

Hong Kong, March 1973.

SPRATLY KEEPS ITS SECRETS.

The recent DX-pedition to Spratly Island has produced some very interesting and curious asides.

It was thought that the Island had been visited by only fisherman over the past years, and that the DX-

Spratly

pedition team were the first outsiders to call for many years - but were they?

There is now evidence to indicate that the Island had been visited, and perhaps even used; the questions as to whom and for what purpose may be posed but will most likely remain unanswered.

The last known available survey of Spratly Island carried out was that of the British in 1951, when two Lieutenants of the Royal Navy dutifully surveyed this far flung spot, and in due course a chart was produced. It is most unlikely that these two naval gentlemen could have conceived that their chart would be used by Captain Vic and his band of buccaneers some 22 years later, to locate the Island with a view to off-loading a ham station. However, such was the case, but although the cairn and the well shown on the chart were easily identifiable by our team once ashore, there was another feature which could only have been put there since the 1951 survey.

A rough strip was apparent and had been cleared, not long by any means but certainly capable of taking STOL aircraft (short take-off and landing); furthermore, what looked like small parts and pieces of aircraft were also found, but without any telltale marks as to when they originated or what age they might be.

Who else then had been to Spratly?

Some lonely flyer who had met his end after being forced down to make repairs, and had attempted to clear a path for a take-off only to fail and have all trace removed and record lost in the anonymity of time - or something more sinister?

This incident alone might not warrant more than the usual speculative reflection, but there was another.

When Pete went adrift in the whaler, as soon as his plight was known on the 'Yankee', the skipper with Chester on board weighed anchor and set off on a "square search" to try to locate him. A square search is a procedure used both at sea and in the air, whereby the searching craft proceeds on a route of ever increasing "squares" in order to cover the greatest possible area. However, in darkness and as Pete had no light, it was futile, and short of running him down, there was not much hope of finding him, so the 'Yankee' hove to and was allowed to drift with the current, on the assumption that its drift pattern would be much the same as Pete's.

At daybreak Pete was not in sight, but another ship was, quite a large vessel, so it was decided to head toward this craft with the intention of seeking help in the search. As the 'Yankee' approached, it became apparent that there was not one vessel, but two, and at first in the far distance it looked as though the smaller

craft might be in close tow, but as the closing distance narrowed, a familiar outline began to take shape - if the second vessel wasn't a submarine, it looked remarkably like one. What was it doing here? Refueling perhaps, although the larger vessel did not look like a fleet refueler, but more important, whose was it? And how would they view the intrusion of the 'Yankee' with an English skipper, a Vietnamese engineer and an American all claiming to be looking for a lost ham adrift in a whaler.....!

It was a tough decision, but discretion and valor took their respective places and the 'Yankee' came about and altered course for Spratly, leaving the others undisturbed in their business and the submarine, if indeed it was, to slip quietly below, to shut its secret firmly in Davy Jones' locker.

Could the two incidents have clandestine associations? Or are we all becoming too attuned to James Bond living. Of the episode only two things are for certain; we may never know the answers to the mysteries of Spratly and if anyone does, they will never be told.

A PLAN THAT NEVER MATERIALIZED.

The November 1969 copy of "Ohm" carried on its front cover the invitation "Anyone for Spratly Island?",

and depicted one of the two vessels then preparing hopefully for a try at the Island.

The December issue was even more confident in its opening lines:- "the Spratly trip is finally under way". One of the vessels involved was the 'Exodus' skippered by Jens Jensen, W4AMG, and it was intended that the crew should include Phil, VS6DR; Maurice, VS6AA; Bob, VS6BF and Don, HS3DR.

Another vessel in Hong Kong at the time, and mentioned as a possible for an attempt on Spratly was the 'Mia Mia' Australian owned.

However, it was not to be, and as the difficulties began to outweigh the solutions, the plan had to be shelved for a later attempt.

Of that 1969 group, Maurice and Bob have moved along to Germany and the U. S. A. respectively; for Phil, Spratly, long his dream and ambition, was to evade him in the end only by an ace, and he had to content himself with sitting on the edge of his chair at his QTH in Hong Kong as the 1973 attempt became a reality. Thus Don was the only member of the earlier team to be fortunate enough to realize the ambition that has tantalized many and escaped most; not enough just to say "I have worked Spratly", but to be able to say "I was Spratly and part of the ISLA team!"

imra

(Continued from Page 46)

Sister received the initial message concerning the death from NASA at 3 p. m. and with very little difficulty located a station in Argentina, LU1DSR, operated by J. W. Perkins of the American Embassy. By a remarkable set of coincidences, the Buenos Aires station was in QSO with a Chevy Chase, Maryland station (W3UV), operated by Bill Joachimson, formerly with the U. S. State Department in Washington. Within the hour NASA and John Cooper's family received the official notification from the State Department. (A lot of people think Sister Mary has more going for her than radio. Hi!)

Father Tony Rios (YNIKW/W8) says there are 3 others studying for their licenses at the Capuchin Mission house in Detroit. Willy Jenkins will be ready for his General exam in about a month and Father Austin and Brother Albert are ready for their Novice exams.

Father Bob Conroy, W0OAK, has been representing the St. Louis area on a regular basis. He only has a vertical antenna and could do a lot more with a beam. Anybody know where an "idle" beam might be? Let us know. We will see that it gets to Father Conroy in St. Louis, Missouri.

John Bertram, WB6TZR, Concord, California, was missing from the IMRA Net for two weeks and showed up as suddenly as he disappeared. "Whatsa matter... didn't you get my card from Yugoslavia saying I couldn't make my schedules???" We finally did!!

Father Barnabas (formerly the operator of T15BE) passed his Novice exam in New York. He is now WN2MJE and is working very hard on the CW and hopes to take the General and Advanced soon. On March 8, Father Barny will be changing jobs. He will be chaplain at Hancock Field. His address will be 812 N. Salina St. in Syracuse, New York.

Pat Healy, WA4VWJ, had eye surgery on February 14. On the 16th, Pat was brought home after a very successful operation. He will be back on the air after a few more days of rest.

Also on the sick list is Joe Lanno, WB4JOB. By the time you read this newsletter, Joe may be home again - we hope so - but right now he is in the hospital.

Marie Sutter, WA8JLF/OA4, has had a couple of notable visitors at her QTH in Lima, Peru. Sr. Regina, OA7BA, dropped in on Marie in January and Sr. Margaret Mongovan, WA2CQV/CE3, stopped by for a visit the last week of February.

Hugh LeBlanc, W4BOZ, is working on a report concerning international disaster traffic handling. There is also a new Net "in the wind". W. H. E. N. -- Western Hemisphere Emergency Net. Purpose: To be prepared to furnish efficient emergency communication on an Intercontinental level via Amateur Radio by providing a nucleus of trained stations, by providing known frequencies and Net Control Stations, by teaching proper message form and use of phonetics, and by having regular drill meetings. If you are interested let Hugh know. His address is: 9300 S. W. 59th St., Miami, FL 33143.

FCC

(Continued from page two)
PERSONNEL ACTION

RICHARD H. EVERETT APPOINTED ASSISTANT CHIEF, AMATEUR AND CITIZENS DIVISION. General Attorney Richard H. Everett has been appointed Assistant Chief of the Amateur and Citizens Division of the Safety and Special Radio Services Bureau. His new position will include duties as Amateur and Citizens Radio Officer. A graduate of the Washington College of Law, Everett first joined the Commission in 1956 serving with the Law Enforcement Office. He has been active in policy and rule development matters in the Amateur and Citizens Division since January 1963.

March 9, 1973

ACTION IN DOCKET CASE

By Administrative Law Judge Byron E. Harrison on March 6.

JACKSONVILLE, FLA. (SAMUEL C. MCCLUNEY, III) SUSPENSION OF AND ORDER TO SHOW CAUSE WHY THE LICENSE FOR AMATEUR RADIO STATION K0ECG SHOULD NOT BE REVOKED. Scheduled a hearing for June 4, 1973 at a location in Jacksonville, Fla., to be specified in a subsequent Order.

March 12, 1973

ACTION IN DOCKET CASE

By Chief Administrative Law Judge Arthur A. Gladstone on March 9.

NIAGARA FALLS, N. Y. (JAYE W. STURTEVANT) ORDER TO SHOW CAUSE WHY THE LICENSE OF

AMATEUR RADIO STATION WB2-QZL SHOULD NOT BE REVOKED. Terminated the hearing and certified the proceeding to the Commission.

March 21, 1973

ACTION IN DOCKET CASE

By Chief Administrative Law Judge Arthur A. Gladstone on March 12.

SAN FRANCISCO, CALIFORNIA (WILLIAM D. HELM) ORDER TO SHOW CAUSE WHY LICENSE FOR RADIO STATION WB6DMF/1 IN THE AMATEUR RADIO SERVICE SHOULD NOT BE REVOKED. Designated Chief Administrative Law Judge Arthur A. Gladstone to serve as Presiding Judge and scheduled the prehearing conference and hearing for May 7, 1973 in Boston, Mass.

March 22, 1973

SAFETY AND SPECIAL ACTION

PART 0 OF RULES AMENDED TO AUTHORIZE CHIEF, SAFETY AND SPECIAL RADIO SERVICES BUREAU TO ACT ON AMATEUR RADIO SPACE STATION WAIVERS. Part 0 of the rules has been amended by the FCC to permit the Chief, Safety and Special Radio Services Bureau to act on requests for waivers on Part 97 of the rules to allow the operation of amateur radio space stations on board satellites. Waivers granted will be limited to rules regarding station location, authorized emissions, station control, identification, logging, and operator privileges. The amendment becomes effective May 3, 1973. (Action by the Commission March 21, 1973, by Order. Commissioners Burch (Chairman), Robert E. Lee, H. Rex Lee and Wiley, with Commissioner Johnson concurring in the result, and Commissioners Reid and Wiley concurring in part and dissenting in part.)

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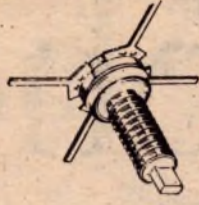
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2N3925	175 MHz	13.6v	5w	2.25	4.00
2N3927	175 MHz	13.6v	12w	6.50	10.00
2N3950	50 MHz	28v	50w	13.30	25.00
2N4072	175 MHz	13.6v	0.25w	1.00	1.75
2N4073	175 MHz	13.6v	0.5w	1.10	2.00
2N5109	200 MHz	15v	11g	1.50	2.50
2N3866	400 MHz	28v	1w	.75	1.40
2N5583	1300 MHz	10v	5w	4.00	6.00
2N5589	175 MHz	13.6v	3w	4.00	6.00
2N5590	175 MHz	13.6v	10w	6.00	10.00
2N5591	175 MHz	13.6v	25w	10.00	16.00
2N5862	150 MHz	27v	75w	28.00	40.00
2N5942	30 MHz	28v	80wPEP	28.00	40.00
2N6082	175 MHz	12.5v	25w	12.00	20.00
2N6084/MM1668	175 MHz	12.5v	40w	23.00	40.00
MM1500	1500 MHz	20v	250mw	7.50	14.00
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2N5590	175 MHz	13.6v	10w	4.75	8.00
2N5591	175 MHz	13.6v	25w	8.00	14.00
2N5849	50 MHz	12.5v	40w	10.00	16.00
2N6080	175 MHz	12.5v	4w	3.00	5.00
2N6081	175 MHz	12.5v	15w	4.75	8.00
2N6082	175 MHz	12.5v	25w	8.00	14.00
2N6083	175 MHz	12.5v	30w	12.00	20.00

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phone PATCHING

by Dr. Sam Rosen, WA2RAU

at once. What's said over the air in a patch is just the same as if you yourself were saying it.

Don't allow any conversation of a commercial nature to be carried on; to quote an incident, a Liberian station asked for a patch to his brother in New York, and when contact was established, the Liberian station asked for certain stock quotations, and began to give his brother (instructions) on buying some \$50,000 worth of stocks for him. Before his brother could reply, I told the Liberian if he could afford to buy stocks in that amount, he could certainly afford a telephone call, and cut him off at once. Remember the FCC regulation on commercial use of the ham bands, and be guided accordingly.

Always be sure the patch is set up and explained to the recipient before you put it on the air two-way. An example I heard about can show you how important this is. A lady from Colombia, South America asked to speak via patch to her husband in a New York City hotel. The New York ham allowed the Colombian lady to listen as the phone call went through to the hotel room. When the phone rang and was answered, a female voice said "If that's room service, honey, have them send up some more ice." The Colombian wife said "I've heard quite enough" and promptly hung up.

Listen and control the patch conversation carefully. In a patch from a service man on Wake Island, his mother-in-law picked up an extension phone, and began to berate the service man unmercifully for being a drunk who spent his allowance money on bar women. You can imagine the effect this had on the service man thousands of miles away.

Keep yourself out of the patch. Don't join in the conversation. I heard a New York City station remark to a patched station from overseas that it must be nice to have oil wells gushing in one's backyard and heard later that he was rather chagrined to learn he had been talking to the Crown Prince of one of the oil rich Arab sheikdoms.

In a nutshell, a little care makes patching one of the most satisfying activities you can carry on. But be careful.

(From "The DX'ers Magazine")

One of the many faces of amateur radio is, of course, phone patching--often used and often abused. At some times, it's life saving, at others an annoyance. Sometimes it builds morale, at other times it creates on-the-air dissension. There's no finer feeling than bringing happiness and solace to either another ham or to neighbors--no greater satisfaction than patching a service man in some far distant corner of the world to his parents or his wife. But the scope of our phone patching is limited at the present time by the smallness in number of countries that permit phone patch traffic (actually third party by definition). I strongly feel that every spot in the world where our forces are serving should permit them to communicate with their loved ones via short wave radio, and especially during the holiday periods. Now that frequency allocation questions have been temporarily resolved, I for one think that the ARRL should use all the means in their power to achieve this goal.

Phone patching is life saving? Let one incident serve as an example: Red, 9X5GG, informed me on one occasion of an epidemic raging in Burundi-Ruanda. By means of the patch, I was able to reach drug houses all over the country, and to collect from them over \$300,000 worth of the needed drugs. The greatest feeling of achievement I have ever known came when the Chief Health Officer in Africa called me on the air, and through me thanked the many people involved in helping to save 38,000 dying people. Today and everyday, MARCO, the medical organization comprising physicians from all over the world,

is on the air daily phone patching to arrange for needed drugs anywhere. During natural emergencies like floods, hurricanes, earthquakes, hams by the score go on the air sometimes for days, phone patching from wherever it may be legal. During the Alaskan earthquake I phone patched 422 servicemen and their families to their families all over the USA.

Just as there is good and evil in individuals, there is good and evil in patching. The abuse factor lies in phone patching friends within short distances within the USA, not for emergencies, but - for example - Mrs. X wants to remind Mr. X to feed the cat, and to make sure Johnny does his homework etc., etc., adinfinitum. Or if Mary can afford to spend the entire winter in Florida, John can quite probably afford a phone call to her to ascertain her well-being.

There are many do's and dont's in patching; some of the more obvious (and often neglected) are: -

If at all possible, do not use frequencies below 14250 kHz for patching because most DX stations operate in that segment of the band.

Limit your patch conversation to about 5 to 10 minutes at the most; longer periods of time usually annoy the hams at both ends of the conversation.

Do not forget to break in and give your call letters from time to time; the FCC may also be listening to the patch and will cite you for a violation.

Do not allow any suggestive remarks or any form of obscenity during a patch - it is your responsibility to throw the switch

Red Cross workers had special praise for Mrs. Smothers and other members of the Grizzly Peak Amateur Radio Club that maintained communications between the site and the chapter.

The group finally ceased operating at 5 p. m. yesterday after being on the job around the clock, shortly after the jet crashed at 8:13 Wednesday night.

One radio call from the site yesterday afternoon was for plastic forks. The Navy had brought in hot food for workers searching the rubble but had forgotten to bring silverware. Could some plastic forks be sent down?

Mrs. Smothers radioed back that someone would have to go out and buy the forks and would be there shortly.

Every radio transmission received by the group had to be logged due to Federal Communications Commission regulations. By yesterday afternoon, 17 pages of transmissions had been recorded.

(From "The Alameda Star")

LATE FLASH-- Lou Huber, W7UU, tells that the court case reported on page 42 went before the court 20 March. Both sides asked for a summary judgement, which was denied. The case goes to full hearing on 11 April.

Betty Smothers, WA6GCS

(Continued from page 3)

One Tahoe Apartment tenant, Terry Lowe, was staying with friends in Riverside in Southern California.

The activity of the Red Cross was typical of the countless hours spent by volunteer groups.

Just 30 minutes after the jet crashed, the Salvation Army was on the scene with coffee, sandwiches and blankets and remained at the site until 4:30 p. m. Thursday.

4X4 International Radio Contest

First Prize:
a trip to Israel



Upon the 25th Anniversary of Israel and of Israel Amateur Radio, the Israel Amateur Radio Club (IARC) has the honor to invite radio amateurs from all over the world to participate in an International Radio Contest to be run as a prelude to the International Symposium of Radio Hams in the Satellite Era to be held in Netanya, Israel June 24 through 29, 1973.

1. **Contest Period** - 0001 hours GMT March 10 through 2400 hours GMT March 11, 1973. The contest stands 48 continuous hours.

2. **Modes** - Fone and CW, but only CW to CW and PH to PH QSO's will count. Only one QSO per mode, per band, per station counts.

3. **Bands** - 3.5 MC thru 28 MC.

4. **Classification** - Single operator only.

5. **Rest Periods** - Thirty-six hours of operation permitted out of the forty-eight hours. The twelve hours of non-operation may be taken in one but not more than three periods anytime during the contest. Rest periods must be indicated in the log.

6. **Exchange** - A contest QSO will consist of the usual 5 or 6 digit number ie RST/RS, RPT and progressive QSO number starting with 001.

7. **Points** -

Each continental QSO: 1 point

Each intercontinental QSO: 5 points

QSO in own country: 0 points but

allowed for a multiplier. Only one QSO per mode, per station, per band permitted.

8. **Multiplier** - Each different country on each band will act as a multiplier. The sum of all different countries on each band will act as final multiplier. The ARRL DXCC list will be the official country list.

9. **Qualification** - Each contest log must contain 25 different 4X, 4Z call signs. Reciprocal calls issued by Israel count as 4X. Logs that do not have the required number of 4X or 4Z call signs will not be considered for the first prize, but will be considered for continental prizes.

10. **Scoring** - The final score is the total QSO points (minus duplicates) multiplied by the sum total of multipliers from all bands. Only one QSO per mode per band permitted.

11. **Contest Awards:**

The Israel stations are not eligible for the grand prize but will be competing for a transceiver.

1ST PLACE GRAND PRIZE

Airline ticket to Israel and return, from nearest international airport, plus ten days prepaid hotel accommodations, breakfast and dinner. The winner will be guest of honor at the International Symposium of Radio Hams in the Satellite Era meeting in Netanya, Israel, June 24 thru 29, 1973. At the opening ceremony the winner will be presented a special trophy by Mr. Joseph Lieberman, 4Z4HF, Contest Committee Chairman. The winner of the trip will be notified by telegram by May 22, 1973, and be contacted shortly thereafter for travel arrangements. Verification of acceptance may be made on the air daily from 1330 - 1500 GMT 21 360 MHz plus or minus QRM to 4Z4HF or K4EVY, by checking into the 4Xnet.

The grand prize winner must accept the trophy in Israel. If declined, the high scorer becomes eligible for continental trophy and the second place winner notified, etc.

Seven trophies will be awarded to

the continental winners in Africa, Asia, Australia, Europe, North America, Oceania and South America.

12. **Disqualification** - Violations of the rules of this contest or unsportsmanlike conduct or logging duplicate QSO's in excess of 3% will be deemed sufficient cause for disqualification. No member of the contest or organizing committee is eligible for the grand prize but will be eligible for continental trophy.

13. **Logs** - Forty QSO's per page. Separate logs per each band. Clearly indicate changing mode and band of operation. Columns: Date, GMT, Station called/by, Sent RST/SER NO., Receive RST/SER NO., MODE, MULTIPLIER and points. A summary sheet is necessary and will contain band by band breakdown of points. A separate sheet indicating the log extract for the 25 4X or 4Z QSO'd will be prepared.

14. **Deadline for Submission** - All logs must ARRIVE in Israel no later than April 30, 1973. The logs will be sent to 25th Anniversary of Israel Radio Contest, c/o 4Z4HF, Joseph Lieberman, Kibbutz, SASA, ISRAEL.

GOOD LUCK,
SHALOM,

Joe Lieberman 4Z4HF
Contest Chairman

Individual copies of contest information may be obtained from WB2WOU, Herbert Rugoff, 306 Hooper Ave., Toms River, New Jersey 08753, USA by including SASE or SAE w/2-IRC for airmail return.



In The

House of Representatives

H.R. 3516

A BILL

To amend the Communications Act of 1934 to require that radio and television receivers meet certain technical standards for filtering out interference.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 303 (s) of the Communications Act of 1934 is amended by inserting "(1)" after "(s)" and by adding at the end thereof the following:

"(2) Have authority to require that apparatus designed to receive broadcasts comply with standards of the Commission under this paragraph (2), when such apparatus is shipped in interstate commerce, or is imported from any foreign country into the United States, for sale or resale to the public. Standards under this paragraph shall be prescribed by rule for the purpose of requiring the filtering out of interference. Such standards shall include a requirement that all interference from any amateur station, and any citizens radio service station operating on its assigned frequency, be filtered out."

We've got a TVI bill in the current session of Congress !!! Bill HR 3516 was introduced by Congressman Teague of California, and as you can see, was sent to the House Committee on Interstate and Foreign Commerce.

Now we have to go to work !!! I encourage all amateurs to write their congressman and the chairman of the appropriate sub-committee in support of the bill:

The Honorable Torbert H. Macdonald
Communications and Power Sub-Committee
Room 2125
Rayburn Building
Washington, D. C. 20515

We'll need letters... lots of letters ! Letters from clubs, individuals, amateurs and non-amateurs alike. We've got to get together on this issue and keep the pressure on for an early hearing.

Ted Cohen
W4UMF

SB-144

MOBILE TRANSCEIVER



Freq. range: 144-148MHz.
Channels: 12
Power output: 10 watts
Emission: F3
Max. deviation: ±15kHz.
Mod. system: Phase
Osc. freq. range: 6MHz band

Antenna impedance: 50 ohms
Rec. sensitivity: 0.5 μV for 20 db quieting.
AF output: 1 watt.
Selectivity: ± 12.5 kHz @ 6db.
Filter: Ceramic type

Operating voltage/power:
 Transmit: 13.8V @ 1.9A approx.
 Receive: 13.8V @ 0.35A approx.
Size: 6-11/16"W, 2-3/8"H, 9-1/16"D.
Weight: 4.62 lbs.
Crystals supplied:
 34-94, 94-94, 16-76.

SB-144 TRANSCEIVER

Complete w/dynamic
 mic/coil cord/plug,
 and three sets of
 crystals **259.95**

SB-450

MOBILE TRANSCEIVER



SB-450 TRANSCEIVER

Complete w/dynamic
 mic/coil cord/plug,
 and two sets of
 crystals. **399.95**

Freq. range: 420-450MHz
Channels: 12
Power output: 5 watts.
Emission: F3
Max. deviation: ±15kHz.
Mod. system: Phase.
Osc. freq. range: 24 MHz band.

Antenna impedance: 50 ohms.
Rec. sensitivity: 0.5uV for 20 db quieting.
Selectivity: 6db @ 25kHz, 50db @ 50kHz.
Operating voltage/power:
 Transmit (5W out), 2.0A.
 Receiver (5W out) 0.6A.
 Receiver (squelched) 0.4A.

Filter: Crystal lattice type.
Size: 6½"W, 2¼"H, 8¼"D
Crystals supplied:
 444.5MHz rec, 449.5MHz trans.
 446.0 MHz transmit and receive.

SB-36

TRANSCEIVER



- Full coverage—phone and CW, 5 amateur bands—80-40-20-15-10 meters
- Digital, frequency-counter readout to 100 Hz
- Receiver incremental tuning (RIT)
- Separate crystal filters for USB/LSB—no frequency shift with SB change.
- Double conversion receiver with fractional microvolt sensitivity.
- Built in VOX
- Audio sidetone for CW monitoring or SSB tuneup.
- Adjustable ALC w/meter monitoring
- Highly effective noise blanker—operates on I-F.
- Jacks for phones, key, ext. speaker, transverter, ALC.

Freq. range: (MHz).
 3.5-4.0, 7.0-7.5, 14.0-14.5, 21.0-21.5, 28.0-28.5,
 28.5-29.0, 29.0-29.5, 29.5-30.0.

Tubes/semiconductors:

Transmitter: 2-6KD6 RF amp, 1-6BQ5 RF driver,
 1-6EJ7 mixer
Receiver: 1-6BZ6RF amp, 1-6AW8 mixer,
 51 transistors (6MOSFETS)
 32 diodes (plus 8 in power supply)

Size: Transceiver: 6½"H, 13¼"W, 14½"D.
 Power supply: 6½"H, 6"W, 12¼"D.

Pri. input voltage: 115/220V, 50/60Hz AC.
Power consumption (AC): 550W.

TRANSMITTER

Power Input: SSB, 500W p.e.p. CW, 400W.
Carrier suppression: -50db
Unwanted SB: -50db @ 1kHz.
SB rejection filters: (2 used) Crystal lattice, 9MHz.
SB selector: USB or LSB or CW
Audio B/W: 300-2700kHz @ 6 db.
Output network: Pi net, 25-100 ohms resistive.

RECEIVER

Sensitivity: 0.5uV for 10db S+N/N.
Selectivity: 2.4kHz @ 6db, 4.2kHz @ 60db.
Audio output: 2.5W @ 10% dist.
Incremental tuning (RIT): ±7kHz range.
Speaker: built into power supply.
Noise blanker: I-F type, switchable.
AGC: Fast, slow, OFF.
Earphones: Jack on panel.
Power consumption: 100W.
Controls, rear panel
 Bias, Carrier balance, VOX sensitivity,
 delay, anti VOX, plug for external VFO.

Metering: Transmitter plate current.
 Relative RF output. ALC.
 Receiver "S" units.
Connections, rear:
 Output to transverter.
 600 ohm audio, 8 ohm audio.
 ALC input. Remote control line.

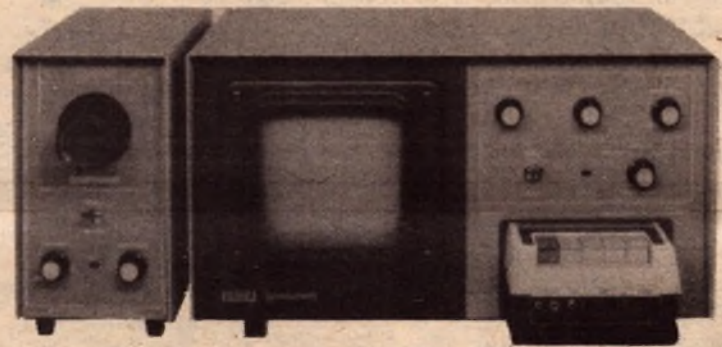
SB-36 TRANSCEIVER

Complete w/115VAC
 power supply/apkr.

969.95

SCANVISION

SLOW-SCAN TV



MONITOR

C/R face: 4-11/16" square.
Lines: 128
Line rate: 15Hz (nominal)
Frame rate: 8.5 secs (nominal)
CRT: P7 phosphor,
 magnetic deflection
Input from recvr: 50 mV to 9.5V
Input impedance: 1000 ohms,
Sync pulses: 1200 Hz.
 Horizontal, 5 msec.
 Vertical, 30 msec.
Modulation: FM, 1200-2300Hz.
White: 2300 Hz. **Black:** 1500Hz.

Power supply: Built in.
 120/240VAC, 50/60Hz.

Power drain:
 50W approx (monitor only).
 80W approx (camera & monitor)
Size: 16¾"W, 12½"D, 9¾"H
Recorder:
 Tape recorder built/wired-in.

INPUT/OUTPUT
 Mic input
 FM/Video to trans.
 Video to telephone line
 Camera interconnect

CAMERA

Videocon face: .0432" x .0432"
Lines: 128
Line rate: 15Hz
Frame rate: 8.5 secs.
Deflection: Magnetic
Focus: Magnetic
Power: Supplied by monitor.
Connecting cable: 8 feet.
Size: 5-3/32"W, 9-5/16"H, 12-9/16"D
Lens: C-mount. Type, f/1.9, 25mm.
 Stops: f/1.9 to f/22.
Field: ±15° horizontal & vertical

SB-1MTV MONITOR

Complete w/recorder

529.00

SB-1CTV CAMERA

Complete w/ f/1.9,
 25mm lens

469.00

Webster

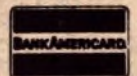
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RELIABLE DX — SIGNALS EARLIEST IN AND LAST OUT.



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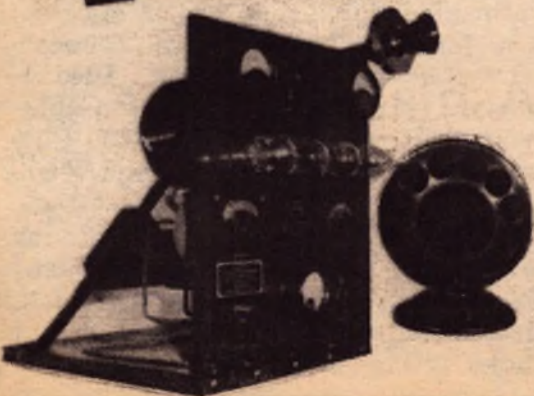
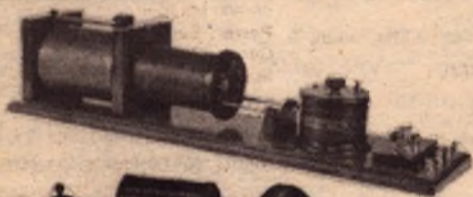
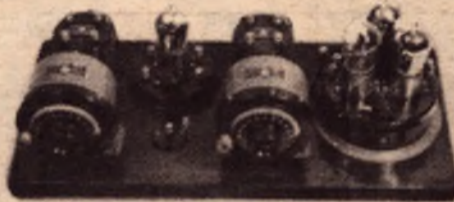
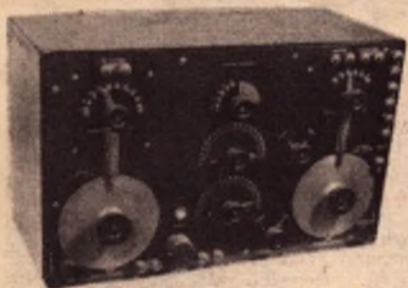
And now, with motorized options, you can crank it up or down, or fold it over, from the operating position in the house.

Write for 12 page brochure giving dozens of combinations of height, weight and wind load.

Three men astride a Standard 80 foot tower with a 14 square foot antenna wind-load capacity (designated A80 (14 sq./ft.). Supported only by the test base.

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In Almont Heights Industrial Park
 Almont, Michigan 48003



McMahon's Vintage Radio

Re-live the pioneer days of wireless and radio in this new 240-page book.

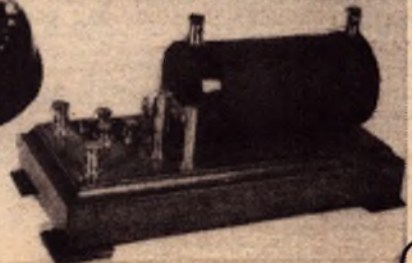
- Discover a new hobby.
- See old-time ads and pictures.
- Read about the rough-and-tumble early days of a new industry.
- See hundreds of photos and data on wireless and radio equipment.
- Own the only available collector's handbook.
- You can't lose; ten-day moneyback guarantee.

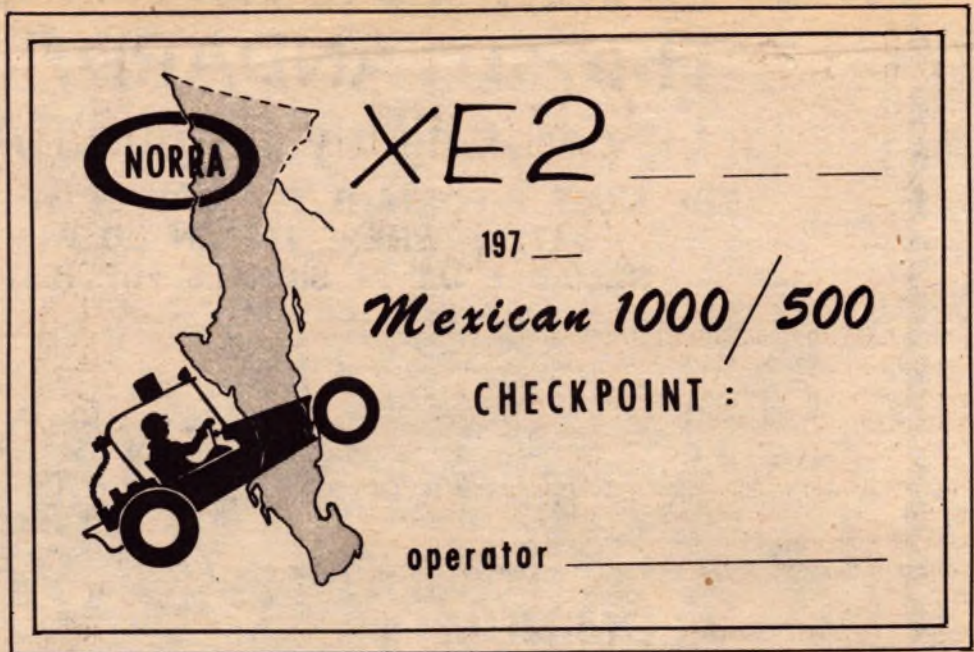


Vintage Radio, Box 2045, Palos Verdes Peninsula, California 90274

Enclose check to VINTAGE RADIO for \$3.95 per copy (\$4.15 in California), Postpaid.

Name _____
 Street _____
 City _____ State _____ Zip _____





MEXICO

NORRA BAJA 500

First Call to the Baja 500, Off-Road Race

What: 5th annual running of the Baja 500 Off-Road Race.

Date: 7 and 8 June 1973

Where: Baja California, Mexico

Wanted: Amateur Radio Operators.

Require 20 amateurs to set-up and operate radio communications links during the running of the race. Require 2 operators minimum at each check point and Ensenada.

Rewards:

A personal XE2 call will be assigned to each operator; party in Ensenada after the race; and a heck-of-a-lata-FUN. Commemorative QSL cards will be given to all operators.

Start-Ensenada (Net Control)--WB6OAO, WA6KER, need 1 more operator.
 Check Point 1 - Camalu, WB6CVR, WB6CWN.
 Check Point 2 - El Rosario, K7VHS, W6NHX.
 Check Point 3 - Santa Ynez, WB6HSZ, need 1 more operator.
 Check Point 4 - Rancho Chapala, Need 2 operators.
 Check Point 5 - Punta Final, WB6AGR, need 1 more operator.
 Check Point 6 - San Felipe, Need 2 operators.
 Check Point 7 - Diable Dry Lake, Need 2 operators.
 Check Point 8 - Trinidad, Need 2 operators.
 Check Point 9 - Ojos Negros, Need 2 operators.
 Finish-Ensenada (5 miles East), K6LE, Need 1 more operator.

Some of the check points have already been requested, so get your requests in ASAP and don't be left out. We will also need telephone outlets in Los Angeles and San Diego. We would like to see a number of Stateside stations monitoring at all times.

Frequencies - 7.205 day and 3.945 night.

For more information or Check Point reservations, please contact me ASAP. I am usually on 7.255 MHz (WCARS) 1700 weekdays.

More info later-----

73,

Mike Gauthier
K6ICS - XE2ICS

Electronic Investing

One of the advantages in having a radio or electronic background is the ability to tell the difference between high quality gear and shoddy merchandise. When we go beyond outside appearances and pull the chassis or look at a printed circuit board instinctively we form certain opinions. The components are either cheap or first rate. The wiring and soldering are poorly or professionally done. Design may be sacrificed for price or it may be state of the art. In addition to present operating performance we can be fairly certain about reliability of the piece of gear in the future.

E. F. JOHNSON Company of Waseca, Minnesota has manufactured radio communication equipment since 1923. Most of the old timers in radio living today cut their eye teeth on Johnson equipment. And nearly everyone will agree that E. F. Johnson is tops in design, component quality, workmanship and performance. So let's take a look at the common stock of E. F. Johnson.

There are 890,000 shares outstanding

by Clayton Ankeny, WB6OGZ--a monthly column

with 34% closely held. This means there is a relatively "thin" market for the stock . . . a few thousand shares bought or sold will considerably influence the price of the stock. It is traded over-the-counter by such well known dealers as Smith, Barney in New York City and Piper, Jaffray and Hopwood in Minneapolis with a trading range the past year of 21 1/2 high and 16 low.

E. F. Johnson is currently selling at \$16 a share, its low for the last 12 months.

Sales have steadily increased from \$15 million in 1970, \$16 million in 1971 to \$21 million in 1972. With estimated sales of \$25 million in 1973. Earnings per share likewise have risen from 44 cents in 1970, 65 cents in 1971 to \$1.28 per share in 1972. At the current price of 16 the stock is selling at 12 times earnings. The company pays 50 cents a year in dividends on a quarterly basis for a 3% yield.

Most amateur radio operators are familiar with E. F. Johnson's ham radio, C. B. and Land-Mobile products. What may not be so well known is Johnson's joint venture with the 3M Company on a highway emergency radio system and

TRW, Inc. on a new VHF radio. TRW, Inc. invested \$1.5 million in E. F. Johnson a year ago.

With an estimated earnings per share of \$1.50 for 1973 and using a conservative earnings multiple of 20 times earnings it is believed the stock should sell at \$30 in the next 12 to 18 months.

We must not lose sight of the fact that a couple of years ago the Japanese had about a 40% price advantage over American radio manufacturers. With the 17% revaluation upwards of the Japanese yen in 1971 and the recent 10% devaluation of the dollar Johnson's products are fully competitive.

More extensive reports and information is available on E. F. Johnson Company and will be mailed on request. Please address your request to: Clayton Ankeny, % Crowell, Weedon and Co., 200 Pine Avenue, Long Beach, California 90802.

Clayton, WB6OGZ, has been in the investment securities business for the past 15 years. He holds Amateur Extra Class and First Phone licenses. All inquiries on stocks will be answered.



Orient Award



Since 1st January 1970 the ORIENT Award has been available to amateurs throughout the world. The award will be made to licensed amateurs who obtain the required number of points by making two-way contact with stations as specified in the ORIENT Award Countries List. The rules for the award are as follows:

- The award is issued in 3 Classes, Class I, Class II and Class III. Each class will be issued to the applicant according to the number of points contained in his application. These points will be calculated according to the table in paragraph 4. The minimum points required for qualification are:

Class I — Orient Stations — 150 points; others — 120 points
 Class II — Orient Stations — 100 points; others — 80 points
 Class III — Orient Stations — 75 points; others — 60 points

"Orient Stations" are those located in countries which appear in the ORIENT Award Countries List (See further).

- Endorsements for the award are issued in three categories:

- Two-way C. W.
- Two-way phone
- Mixed

- Applications for the award must contain proof of two-way contact. In the case of Class II or III applications, the proof may consist of a check list signed by two officers of the applicant's local or national society. Applications for Class I must consist of QSL cards and must be accompanied by sufficient postage for their return. Official application forms are available upon request.

- Points are to be calculated as follows:

For contacts on 28, 21 and 14 MHz — 1 point per contact
 For contacts on 7 MHz — 2 points per contact
 For contacts on 3.5 MHz — 3 points per contact

An applicant who contacts a station on 5 bands will receive a bonus of 5 points, in addition to the points earned for the individual contacts.



- Applicants may claim only one station in each country on each band for points towards the award.
- Only contacts with fixed or mobile land stations will count towards the award.
- Only contacts made after 1st January 1970 will count towards the award.
- Only contacts with stations acceptable by the ARRL for DXCC confirmation will be acceptable for the ORIENT Award.
- Applicants must include to IRC's or US\$1 when applying for Class II or Class III award, or 50 IRC's or US\$5 when applying for Class I award and these should be sent to Awards Manager, P. O. Box 16321, Hong Kong.

Recipients of Class II and Class III awards will receive an attractive certificate suitable for framing. The Class I award will be a teakwood and bronze plaque, hand engraved.

SPECIAL NOTE: The first station to receive the Class I ORIENT award will receive a special plaque, laquered, with pearl inlay, handcrafted by Hongkong's leading jewellery makers.

ORIENT AWARD COUNTRIES LIST

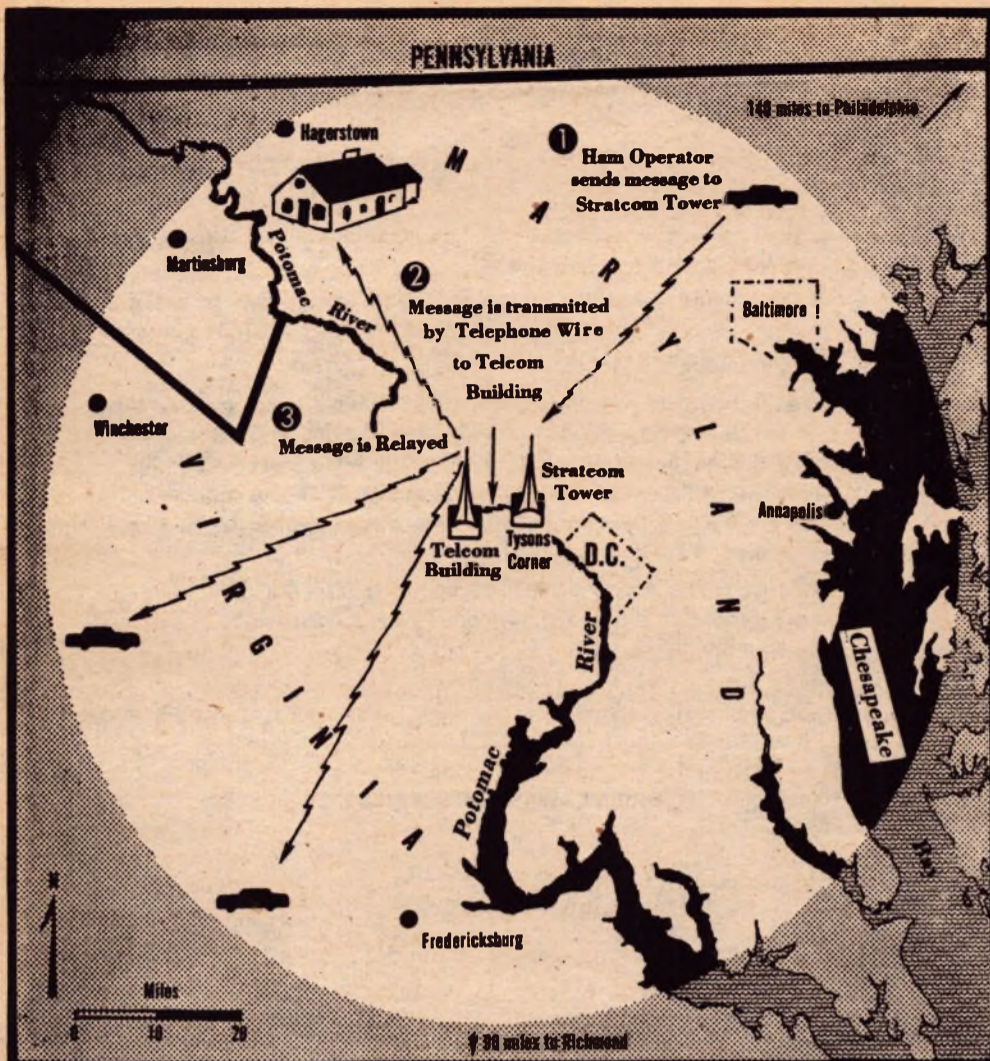
AC3	— SIKKIM	UL7	— KAZAKH
AC4	— TIBET	UM8	— KIRGHIZ
AC5	— BHUTAN	VS6	— HONG KONG
AP	— EAST PAKISTAN	VU2	— INDIA
AP	— WEST PAKISTAN	VU4	— LACCADIVE IS.
BV	— TAIWAN	VU5	— ANDAMAN ISLANDS
BY	— CHINA	XU	— CAMBODIA
CR9	— MACAO	XV5	— VIETNAM
HS	— THAILAND	XW8	— LAOS
HL, HM	— KOREA	XZ2	— BURMA
JA, JH, KA	— JAPAN	YA	— AFGHANISTAN
JT	— MONGOLIA	4S7	— CEYLON
KA6, KA8	— RYUKYU ISLANDS	9M2	— WEST MALAYSIA
UA9, UW9	— ASIATIC USSR	9N1	— NEPAL
UAφ	— ASIATIC USSR	9V1	— SINGAPORE
UJ8	— TAKZHİK		♦♦♦♦

Name Call Sign Date

Address

I wish to apply for the ORIENT AWARD
 3rd class 2nd class 1st class.
 I have previously been awarded the
 3rd class 2nd class 1st class
 award. This is my first application.

COUNTRY & CALL	28 MHz — 1 pt.		21 MHz — 1 pt.		14 MHz — 1 pt.		7 MHz — 2 pts.		3.5 MHz — 3 pts.		Points
	Date	Station	Date	Station	Date	Station	Date	Station	Date	Station	
Sikkim AC3											
Tibet AC4											
Bhutan AC5											
E. Pakistan AP											
W. Pakistan AP											
Taiwan BV											
China BY											
Macao CR9											
Thailand HS											
Korea HL, HM											
Japan JA, JH, KA											
Mongolia JT											
Ryukyu Is KA6, KA8											
Asiatic USSR UA9, UW9											
Asiatic USSR UAφ											
Tadzhik UJ8											
Kazakh UL7											
Kirghiz UM8											
Hong Kong VS6											
India VU2											
Laccadive Is VU4											
Andaman Is VU5											
Cambodia XU											
Vietnam XV5											
Laos XW8											
Burma XZ2											
Afghanistan YA											
Ceylon 4S7											
W. Malaysia 9M2											
Nepal 9N1											
Singapore 9V1											



Map illustrates area of ham radio communications made possible by repeater at Tysons Corner.
By Joseph Mastrangelo—The Washington Post

Give a Ham a Spare Part And the Sky's the Limit

by Ida Kosciesza
from "The Washington Post"

It's easy to pick out Richard Hayman's home from the cluster of colonials in his Potomac neighborhood. Hayman's is the two-story house with the three-story antenna.

Hayman is an amateur radio operator, call letters K3DML. He operates a cash register sales and service company in Northwest Washington with his father and has been a ham for 16 years, since he was 12. Last December he achieved brief national fame when he picked up a call from a ham operator in Quito, Ecuador, appealing for a special surgical mesh that was urgently needed to save the life of a 6-month old boy. Hayman notified Holy Cross Hospital in Silver Spring, which supplied the mesh, and the Red Cross sped it to Ecuador. The baby is making a good recovery, Hayman says.

Hayman's radio station, neat and compact and occupying no more space than many people devote to stereo equipment, is set up on a table under a basement window. He has about \$3,000 in it.

The small, cinder-block-walled basement room is crowded this Sunday afternoon. A group of hams has gathered there to talk about amateur radio and especially about the repeater that some of them set up, nearly two years ago, to serve the Washington area.

Two or three animated conversations are going on at once and, from time to time, a disembodied voice or the staccato rhythm of Morse code adds to the general babel as Hayman turns a knob or throws a switch to demonstrate a piece of equipment.

John Williams, K4GGY, of Alexandria, is talking about technical aspects of ham radio.

"I get a bigger kick out of building the stuff than operating it," he says.

Williams, an applications engineer in electronics, is the newly elected president of the Northern Virginia FM Association, Inc. which operates the repeater. Williams was licensed as a ham 13 years ago when he was 12.

Thom Gooding, K4LHB, of Fairfax, is the vice president of NVFMA. He is an accountant for Fairfax County and has been a licensed ham since 1957.

They define a repeater as a transmitter and receiver, usually located at a high elevation, coupled together for the purpose of receiving a radio signal on a certain frequency and then retransmitting that same signal at a higher power on a different frequency.

This is the system commonly used by police and fire departments and

taxi services to give an extended range of operation from low-powered mobile radio stations. Without the repeater a mobile radio would have a range of 5 to 10 miles; the repeater extends this range to about 100 miles. Most of the approximately 6,000 amateurs in the Washington area have both home and mobile stations.

Even when he is operating a relatively powerful home station a ham may find the repeater useful. Before the repeater was available, Dick Hayman says, it was easier to communicate over long distances than short. Hayman's wife would ask him to contact Philadelphia and he would reply, "Why don't you ask me for California? I have a better chance of reaching it."

The reason for this apparent paradox is that radio waves travel long distances by bouncing between the earth and the ionosphere—the heavily ionized outer layer of the earth's atmosphere.

"It's like a series of mirrors bouncing waves all around the world," is the way Gooding puts it.

Over short distances, on the other hand, radio waves travel on line of sight, and a mountain, or even a fair sized hill, separating two stations can prevent communication between them.

Repeaters are a recent phenomenon in amateur radio. About 1,000 of them are currently registered with the American Radio Relay League and most of these have begun to operate within the past three years. Lewis McCoy of ARRL's head office in Connecticut says there are repeaters in all the states of the union including Alaska and Hawaii. He estimates that at least 50,000 hams are using them.



Photo by Larry Morris—The Washington Post
Ham radioman Richard Hayman, below with his radio set, broadcasts to the world at large over the huge antenna above.



"Repeaters" Weave Tighter Network of Ham Operators

The repeaters provide extremely good coverage with very low power, McCoy says. Some walkie-talkies with only one watt of power can talk 100 to 200 miles by operating through a repeater. Amateurs are making a contribution to repeater technology, McCoy says, especially in the development of control circuits.

The Maryland FM Association has operated a repeater in Baltimore, WA3DZD, for about five years. Within the past three years repeaters have been placed in Cheverly and Frederick, Md., and in Manassas and Richmond.

The Northern Virginia FM Association, Inc. dates from April, 1971, when five local ham operators met for lunch in an Arlington restaurant and discussed the need for a repeater system in the metropolitan area. One of the five was a lawyer and within three weeks he had incorporated the group as a nonprofit organization in Virginia.

Tel-Com, Inc., an electronics firm, allowed the hams to install their first antenna on the roof of its Tysons Corner building. Tysons Corner, with a ground elevation of a little more than 500 feet above sea level, is the highest point in Northern Virginia. The repeater went on the air on June 18, 1971.

Later, the Pentagon office of STRATCOM allowed the group to place a second antenna on its 300-foot tower, also located at Tysons Corner. This second antenna serves the repeater's receiver; the transmitter continues to use the antenna on the roof of the Tel-Com building. Receiver and transmitter are linked by telephone wires.

To set up a commercial repeater would cost a taxi or delivery company at least \$3,000. The amateurs spent \$125 to put their first repeater on the air. They used "scrounged" equipment—cast off government or commercial parts—and three or four members put in many hours of work.

Williams and Gooding estimate that NVFMA directors continue to spend eight to 10 hours a week on work related to the repeater.

Whenever it is on the air the repeater must be monitored by a designated station with positive control of the transmitter. FCC regulations require this to assure that the content of messages is inoffensive and strictly noncommercial and that the technical quality of the signals is high. The hams find the chore no great burden.

"Anytime I am in my car I am listening," says Gooding. "I monitor the repeater with one ear—maybe eight hours a day."

The group has four or five members who can go in and fix the repeater if it goes off, but this seldom happens.

People are so used to the repeater's dependability, says Hayman, that if it goes off they suspect their own equipment first.

Although supported financially by members of NVFMA, who now number more than 400, the Tysons Corner repeater is an "open" facility available for use by any radio amateur within its range. Transients driving through the area and using the repeater can be identified by their call letters.

"In a week's time, here in Washington, you would talk to people from all 10 U. S. call areas," says Gooding.

Hams from Canada and Mexico have also used the repeater while driving through the area.

Repeater directories are published by the ARRL and other organizations and word of new facilities travels fast on the air waves.

One feature of the repeater that NVFMA members find especially valuable is the auto-patch. This is a device that enables the operator of a mobile radio station, by using a push-button dial similar to those on the newer telephones, to send to the repeater coded impulses that will connect him automatically with a telephone line. He can then dial any local number.

When former NVFMA president Don Dunlop, WB4QAX, witnessed a traffic accident in which one of the cars turned over, he immediately used his auto-patch to call Arlington County police. Dunlop was able to talk to police while he was still approaching the scene of the wreck and while the driver of the overturned car was climbing out of it.

The repeater handles about three calls a week for ambulances, says Gooding, and there are calls every day for police assistance in accidents. One or two calls daily come from the George Washington Parkway. Before the repeater went on the air the parkway was a bad spot for communications because it is almost entirely surrounded by hills.

"And those hills are made of iron," says Gooding.

When tropical storm Agnes threatened Northern Virginia, and many families had to be evacuated from their homes, NVFMA members set up communications throughout the area and at Red Cross aid stations.

Hams take pride in their ability to be of service, whether it is in answering a distant distress call, such as the one from Quito to which Dick Hayman responded, or in providing emergency communications in a local disaster.

Each year in June they hold a field day at which they practice operating in emergency conditions using portable generators.

Recently a ham satellite, Oscar 6, hitched a ride with a weather satellite launched by the National Aeronautics and Space Administration. Basically a repeater similar to those on earth, the 40-pound spacecraft circles the earth in a north-south orbit and allows amateurs as far as 4,000 miles apart to communicate without worrying

about conditions in the ionosphere. Oscar 6 was built and financed by hams and put into orbit at no cost to the taxpayer. It replaced part of the ballast the NSA rocket had to carry, explains John Williams.

A free ride for their satellite is not the only benefit radio amateurs have received from the space program. Like all users of electronic equipment they have profited from the technological advances that have been a byproduct of space research.

Williams tosses onto the table something that looks like a small black beetle with copper legs. It is an "integrated circuit chip", a sliver of plastic about a quarter inch square with connectors protruding from its sides. It could be used as part of either a radio receiver or a transmitter. The integrated circuit inside the chip is the size of the tip of a ballpoint pen, says Williams. The only reason for making the chip itself this big is to make it possible to attach wires to it.

Dick Tracy's two-way wrist radio is not yet on the market, but Hayman produces a pocket two-way radio that is about the size of two packs of cigarettes. Half of the space in it is taken up by batteries, Hayman says.

With miniaturization has come a reduction in cost. The quarter-inch chip costs 90 cents. A walkie-talkie that can be carried slung from the shoulder sells for \$200.

Prices have dropped so much in recent years that today "home brewing"—improvising from salvaged or surplus parts—is likely to cost more than buying equipment ready made or in a kit, Dick Hayman says, but Thom Gooding is quick to interject that most hams modify their equipment.

"There are very few appliance operators that just buy something and plug it into the wall," Gooding says.

Hams have been quick to take advantage of space-age developments.

"They are very state-of-the-art minded," says Hayman.

"And yet they are very practical," says Gooding. "Give a ham something old in electronics and he'll make something with it."

Hams have a long history of making good use of other people's discards. Even the wave-length bands originally assigned to their use after World War I were thought to be valueless.

"That's why they gave them to the hams," says Gooding. "Hams developed them and showed what they can do; now everybody wants them."

* * *

John Williams unlocks the door to the Tel-Com building and leads the way across the lobby and down in the elevator to the basement. He picks his way among discarded cartons and past Tel-Com's telephone equipment to reach a door. He unlocks it and he and Gooding lead the way into a win-

dowless 10-by-10-foot room that houses the repeater.

On the right are two racks, the size and shape of large gym lockers. Williams opens one of them and points out the original equipment the group started with two years ago. It was home brewed from 1952-vintage parts. It now serves as a back-up system.

Beneath it is the autopatch equipment, several timing devices, electronic controls for tripping the various components of the repeater on and off at the proper times, and an automatic station identifier that sends the repeater's call letters, WB4QFP, in Morse code every three minutes. FCC regulations require a radio station to identify itself at regular intervals.

The second rack once held both a transmitter and a receiver. Since the receiver was moved across the road to the STRATCOM tower the lower section of the rack has been empty. Behind the equipment is a tape recorder which is switched on automatically whenever the auto-patch is activated and records all autopatch transmissions. On the far wall are racks of spare parts, many of them discarded government or commercial material—evidence of the hams' propensity for scrounging.

The repeater clicks into action. A member is dialing the code that will activate the auto-patch. The tape recorder starts to turn and the caller dials his number. This time there is no emergency; this is just a guy calling from his car to tell his girl friend he'll be a little late.

A repeater can handle only one call at a time and WB4QFP is already a crowded station, especially in the commuter rush hours when most emergency calls come in and when members would most frequently like to use the Autopatch to let wives know that they are held up in traffic and will be late for dinner.

NVFMA will put a second repeater into operation this month. The association's directors talk of providing as many additional stations as its growing membership requires.

There are so many facets to amateur radio that there is no single reason why people are attracted to the hobby, Gooding says. Some hams, like John Williams are interested in electronics and like to experiment; some like to talk to people—perhaps to people in distant countries; others enjoy performing a public service. Some hams sit all evening and pass messages back and forth for third parties, Gooding says.

Hayman, once thought of studying communications and electronics in college, but decided against it because he didn't want to ruin his hobby: ham radio.

"This is different from everything else I do," he says. "It is a complete diversion. It has no relation to the problems of life. That's what a hobby should be."



Reach Out!

Rev. Fr. A. E. A. Murray-Stone (9G1GG)
Seamens Mission
P. O. Box 71
Takoradi, Ghana
West Africa

I am taking the liberty of writing to you in the form of an appeal for help.

In our work on behalf of seamen we are called upon very frequently to deal with accident and hospital cases taken from visiting vessels, in addition thereto we also have to deal with seamen who have got themselves into difficulties locally in the seedier portions of the township; in the first case we take the men to hospital, and in the second we see them safely back to their ships.

To enable us to do this work effectively we have a mini-bus/ambulance and a 24 foot harbour launch both of which are driven by me, but great difficulty is experienced on many occasions due to lack of quick communication with the Mission which is situated outside of the Harbour.

Now to the point of this letter, may I appeal through you to our brother hams for some inexpensive CB or 2 meter gear that I could install in the bus and the launch and the Mission so that we would have immediate contact with all three sections of our welfare operations.

I say "inexpensive" in a relative sense in that we are very limited for funds and still more limited in foreign exchange, and I have seen some quite cheap CB equipment advertised items of which might conceivably be on the second-hand market.

I have appealed to two shipping lines in the United States whose vessels regularly use Takoradi and whose crews we deal with, for help with this matter, but unfortunately have never received an answer to my letter.

Can you please help? It is most important to us that our work in the field of seamens' welfare is made as effective as possible, remembering the words of our Master, "...the least you do to one of these, my brethren, you do it unto Me".

I would be most happy to explain our work in detail to anyone who would be interested.

(Forwarded to WORLD RADIO by Richard Ross, K2MGA; Editor, CQ Magazine)

Stanley Karaskiewicz M. D. . SPIUZ
75-336 Koszalin
ul. Podgorna 26/35
POLAND

WORLD RADIO
2509 Donner Way
Sacramento CA 95818
U. S. A.

Dr. OM:

I am a leader of a Rehabilitation Center at Koszalin in Poland, which erecting is beginning in this year. In this center the people will be cured by complete rehabilitation in the cases of congenital defects, injuries, old age and so on. In some cases many of them will not be able to return to work. I suppose that giving them the possibility of using a ham shortwave station will make their lives more lucky. But I haven't any experience in building those stations. Therefore I ask you please to please be so kind, if you have some papers, technical data and other information about erecting such stations for ill men, please send it to me. I am also interested in knowing your experience in this matter and will exchange opinions on this subject with medical persons who are treating such people. Additionally I inform you that I am often QRV about 14200 Kc/s.

Box 1659
Jackson Hole, Wyoming 83001

WORLD RADIO:

Dear Sirs:

In a recent issue of WORLD RADIO, you gave extensive coverage to the worthwhile activities of a young ham in N. Miami Beach, Fla. and I was quite taken with the accomplishments of this young lad... a definite credit to our fraternity!

His work with the hospitalized, veterans and others to whom ham radio would be a particularly fine hobby, interested me and I wanted to help in a small way. Recalling how my little Heathkit Oscillator helped me, I sent him a kit from Heath and today, Steve thanked me for the small donation. I thought you might be interested in this follow-up.

Due to WORLD RADIO, I am able to make a small donation to our great hobby and some guy who wants to get active in it... for this I thank you!

Best 73s, always

Jim VanNostrand, WA7IFX

QCWA



C. F. "Monty" Montemayor, W5YZ, received the QCWA "Ham of the Year" award from the Houston, Texas chapter. The presentation ceremony was the highlight of the February meeting of this dynamic group and "Monty" was awarded a special hand-carved, wooden, desk-plaque bearing his name and call sign to commemorate the occasion.

Mr. Montemayor has been secretary of the Chapter in Houston for the past three years, is editor of the Houston Chapter's monthly news bulletin which has attracted national attention, and he serves as "spark plug" for all local and Gulf Coast area QCWA activities.

On Thursday night, Monty is Master of Ceremonies on the 5th District-Houston Chapter QCWA - "Weekly Meeting on the Air".

QCWA On-the-Air Activities:

Name of Net	Net Control Station
National QCWA Net	W2SF/AIM-W6FQ-KP4CH

Freq: 21, 447/21, 342 alt.
Day and Time: Sunday 2200 GMT

Nat'l QCWA CW Net	W2JBL-W9CV
-------------------	------------

Freq: 7035/7045 alt.
Day and Time: Wednesday 0100 GMT

5th Dist. QCWA Net	W5FU
--------------------	------

Freq: 7230
Day and Time: Sunday 1430 GMT

5th Dist. QCWA CW Net	W5DW
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Freq: 7147
Day and Time: Sunday 1400 GMT

Tyler, Texas Chapter QCWA Net	W5CNO
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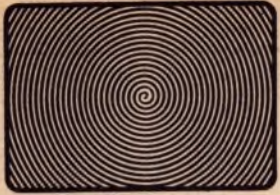
Freq: 3835
Day and Time: Sunday 1400 GMT

Houston Tex. Chapter QCWA Net	W5YZ
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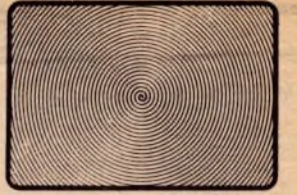
Freq: 3876
Day and Time: Thursday 0200 GMT



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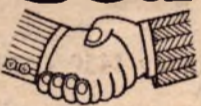
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Renewal-

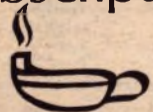
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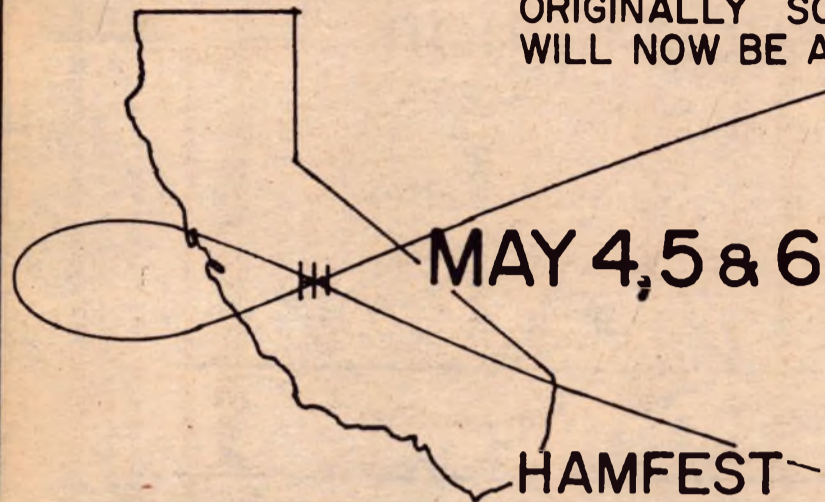
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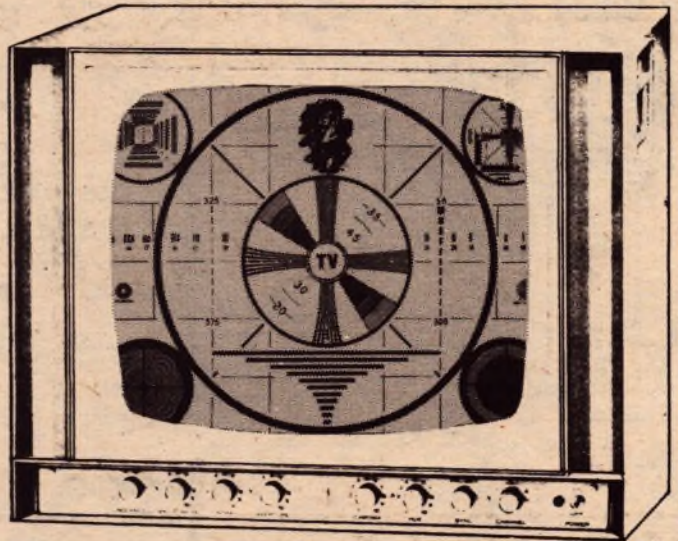


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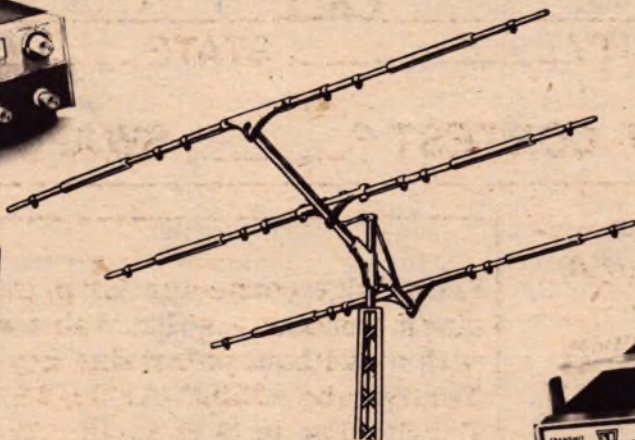
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Operations Manual

PREFACE

The Midwest Amateur Radio Service (Midcars) was founded on January 23, 1968 by two amateurs, W9WWE (Marvin Cook) and K9DDT (Nick Geer). The Service operates as a nonprofit corporation by virtue of a charter issued by the State of Illinois in 1969. The daytime operation of the Service is on or near 7258 kHz and in the evening in or near 3903 kHz.

The primary aim of Midcars is public service. Through a skilled and disciplined organization, our purpose is to provide efficient, dependable emergency communications on an all-day, every-day basis. By providing monitored frequencies, on which mobiles are given priority, accidents or other emergency situations may be quickly reported and receive prompt attention. The frequencies on which Midcars operates also provide places where stations may meet and move off or receive assistance or information.

No traffic of a non-emergency nature shall be handled on frequency except, at the discretion of the Service Control station, a brief message may be passed when it is impractical for the stations involved to move off frequency.

FREQUENCIES

Midcars lays no claim to any particular frequency. However, as determined by the Board of Directors, the Service Control station will attempt to maintain Service operation as close to 7258 kHz and/or 3903 kHz, or other designated frequency, as is practical.

CHECK-IN PROCEDURE

It is not required that a station be a member of Midcars in order to participate, although it is hoped that our goals will be shared to the extent that a voting membership will be desired.

Stations responding to a call by Service Control should give only their call sign, ONCE ONLY and wait to be acknowledged. The words "Check-in", "Break", and "Re-check" should NOT be used.

If you wish to report an emergency, the word "Emergency", followed by your call sign, will receive instant priority. If mobile, so state on the initial call-in. When Service Control has completed a list of check-ins on a given stand-by, each station will be acknowledged individually, in turn, except that mobiles will be acknowledged first.

When acknowledged, the following procedure should be followed: Give the call-sign of the Service Control station, followed by your call-sign, your name and location. If you are QRU, state that you have one-way or two-way facilities into your area.

If you are looking for a particular station or location, make a brief call for it on your first transmission. You may assume Service Control's permission to do so. If you get no reply, say "Please list" or "Do not list", as you wish. If you wish to contact a station you know to be on frequency, say "Contact" and wait to be acknowledged. Use the word "Contact" only for this purpose.

IMPORTANT: If you list traffic, always check out when leaving the frequency. When moving off to another frequency to establish contact, help Midcars maintain its reputation for courtesy by always inquiring if the frequency is in use.

SERVICE CONTROL STATION

The Service Control station is the focal point of our entire operation. Although not a requirement, it is preferred that he be a member of Midcars. In any case, he should be aware of the purposes of our organization and be fully acquainted with the contents of this Manual. The major contribution to the success of our efforts clearly rests with these individuals.

Service Control should have a strong, clean signal and his manner should command the respect of participating stations. He should be firm and brief but friendly, remembering that he is merely coordinating the efforts of a skilled and dedicated group of amateurs. If Service Control makes his transmissions short, participating stations are likely to be equally brief.

Service Control should frequently announce that he is standing by for mobiles only, since mobile operation is the primary function of Midcars. After logging all the mobiles on a particular stand-by, he should NOT announce that he is standing by for

fixed stations only, thus excluding mobiles. Instead, he should merely say, "This is Midcars, W9---" or "W9--- for Midcars", thus opening the Service for any check-ins, including mobiles.

After each stand-by for check-ins, Service Control should quickly announce the calls he has logged, before going back to the top of the list. Otherwise, those calling will not know whether or not they have been heard.

Service Control should, as time permits, call up the mobiles who have already checked in and give them an opportunity to make a transmission.

Service Control should use restraint in the frequency with which he gives his own name and QTH. This information is unnecessary unless asked for and wastes valuable time.

Consistent involvement and careful attention to detail is the only sure way to acquire the expertise necessary to be ready to smoothly and expeditiously handle the Service. When an emergency arises, Service Control must exercise good judgment as to what steps to take, in what order. In general, it is usually wise to suspend normal operation until all pertinent facts have been ascertained, and for as long thereafter as deemed necessary.

In the case of an emergency involving a vehicle, Service Control should ask the nature of the emergency, the exact location (highway number, nearest exit if an Interstate, direction of travel, and what type of assistance-ambulance, police, fire equipment, etc.) is needed. Control should then call for a station in the vicinity of the emergency, remembering that all State Police offices in any one State are in touch with each other, so a phone call to one will obtain the aid of any other. If no station is quickly available in the State where the emergency exists, Service Control should ask a station in another location to make a phone call to relay the information. Reimbursement for such authorized calls, where a toll charge is involved, will be made by Midcars.

ADDITIONAL OPERATING SUGGESTIONS

No station should assume Service Control until station equipment has warmed up sufficiently to assure minimum drift.

If QRM near the frequency appears to be unintentional, Service Control may, at his discretion, designate a station to move off and explain our operation to the interfering station and solicit his cooperation in a friendly manner.

If QRM is obviously intentional, it should be ignored completely. This is the best way to frustrate the intruder. Participating stations should be warned to not address remarks to the interfering station. This merely aggravates the situation. UNDER NO CIRCUMSTANCE should a Midcars station move off frequency and intentionally QRM another station.

MIDCARS

If intentional QRM makes normal operation temporarily impractical, Service Control may elect to rag-chew with some of the strongest stations on frequency until the QRM subsides.

When poor skip or other conditions make operation difficult, one or more alternate Service Control stations should be asked to put out calls from their areas to obtain better coverage. At such times, the original Service Control station is responsible for proper operation of the Service.

Should procedural questions arise, they should not be discussed at length on the Service but rather off frequency or by letter to a Midcars Officer or Coordinator.

This manual has been prepared with just one thought in mind: To help Midcars to better serve the public and our fellow amateurs. It does not cover all possible aspects of Midcars operation and is not intended to do so. But if it helps smooth the way for our newer Service Controllers and helps make participation in Midcars a more rewarding experience, it will have served its purpose.

William G. Blankenship, Jr., K4DLA

Lose a contest and Save a Life

On March 3, 1973 I was operating in the ARRL DX Contest on 20 meters when I received a call from TG9VD indicating a medical emergency. Since his English was quite limited he turned the operation over to his XYL, TG9LN. She requested assistance in obtaining some special medication for a young accident victim who had a leg amputated and was a hemophiliac. He was in extremely serious condition and would die without this specific medication which was available from Hyland Laboratories in Glendale. At this time W9LVT/6 and WA6TSK broke in with offers of assistance. WA6TSK said he had a friend who was a doctor and promptly enlisted his aid. The doctor (Don Michaelson) contacted the laboratory and made arrangements to obtain the medicine. Since speed was essential he also was successful in having the medicine delivered to Guatemala City by a special Air Force flight. A maze of red-tape had to be overcome during the night, culminating in a call from Dr. Michaelson to Herb Klein at the White House who obtained authorization from President Nixon for the flight.

I (K6SVL), WA6TSK and W9LVT maintained contact with TG9LN during the night on 20 and 40 meters co-ordinating this activity. T12CGM in San Jose also assisted in maintaining radio contact.

The medicine was received in Guatemala City Sunday afternoon and the young man's condition had improved, according to a later contact Sunday with TG9LN.

We received excellent co-operation from the DX gang in avoiding interference with this emergency traffic.

This event made the headlines of the Los Angeles Times. It was an excellent example of good publicity for the Amateur Radio Service - the Times has the largest circulation in the West and this is the most prominent display of favorable publicity for the Radio Amateurs I have ever seen.

I now have a good excuse for not scoring higher in the DX Contest - this took away much prime operating time but was well worth it. I should have known something would happen - for the first time I had no equipment failures during the Contest after 3 consecutive years!

John P. Alexander, K6SVL

INTRUDERS

by Bill Conklin, K6KA

Many countries now have some form of an Intruder Watch. This extends to a "monitoring system" in Region I, with G3PSM as the "headquarters". Some of Colin's activities have reduced broadcast harmonics in the band, and initiated diplomatic requests from several countries for the removal of some "commercial" intruder from our bands.

In the U. S. A., the matter is handled by ARRL, which receives report forms from the volunteer members of the Intruder Watch, and forwards the top sheet to FCC where they are assembled and studied. Some alerts to FCC Monitoring Service during the illegal transmissions result in very accurate direction-finder bearings, copy of what is sent, search for cause of spurious emissions, and so on.

Sometimes these intruders just go away - but often this happens after the FCC takes the necessary action to request the offending country to remove the signal. It would be nice to think that every "alerted" intruder's demise is the result of the operation of this system, but probably it is not always so. Nor is the winter reduction in intruders necessarily the result of such action, because the band must be open to the intruder's transmitter, at a time when that intruder also is using the frequency. In the case of a station in Vladivostok,

transmitting to Moscow, let us say for example, conditions have to be good from the U. S. A. to East Asia, and also from there to East Europe--a situation that is more likely to occur in summertime. So, one might say with confidence that the number of intruders, showing up in our bands, will be greater as summer approaches.

That will be the time to get the most reporting done, in order to have lasting effect.

Intruder watching is something of a detective game if one goes beyond the mere sending in of reports. One should be aware of other signals on the air, in case one might be spurious from another source. Also, one can look for out-of-band causes. Giving FCC Monitoring a complete report including the cause, appears to be most helpful and productive. In that case, complete action by the FCC is much more likely because of the pressures from many others to obtain the attention of FCC Monitoring.

Many stations are on F1 radioteletype, of which half or more can be printed by amateur equipment, but many cannot. D. F. bearings by the FCC may identify the source sufficiently. Other identifications are helpful--such as those made by an intruder when he moves to a new frequency and must identify himself to the station he hopes to contact there. This may even be in morse, before the station goes to RTTY. There are other clues--such as the FSK shift of the signal which often is a "built-in" trademark at least of

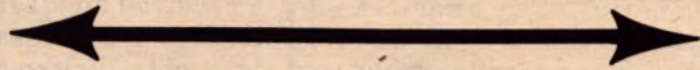
the country of the manufacturer, if not the country of the using transmitter.

Here at K6KA, I have procured a syphon-pen recorder, which will put one side of RTTY on a paper tape, just like morse. The trouble is that while "keyboard" can be read easily due to the spacing, RTTY tape runs together so much that it takes a little study to pick out the stop/start reversals in order to divide the stream of signals into individual characters. At the moment, awaiting ink and rolls of paper tape, I am accumulating information on the various types of RTTY codes, of which there may be as many as 20. A BBC tape furnished by VK3LC has been helpful on multiplex and on 7-bit error-correcting codes, and Irvin Hoff, W6FFC and others have furnished some details about other types including binary and punch-card transmission systems.

Should anyone be familiar with the more complex ones like the error-correcting codes and the multiplex signals, I shall be very happy to hear from him, so that I can draw up the typical character transmitted by these systems. This includes the synchronous systems which may not have any start or stop pulse or other identification other than length of the data bits and the resulting baud speed. Then I shall have a better chance of "breaking" and reading these codes from the inked line on the paper tape, using simple manual methods of locating the characters and reading them. In this way, text as well as type of code or system may provide clues to the source of the intruding signals.



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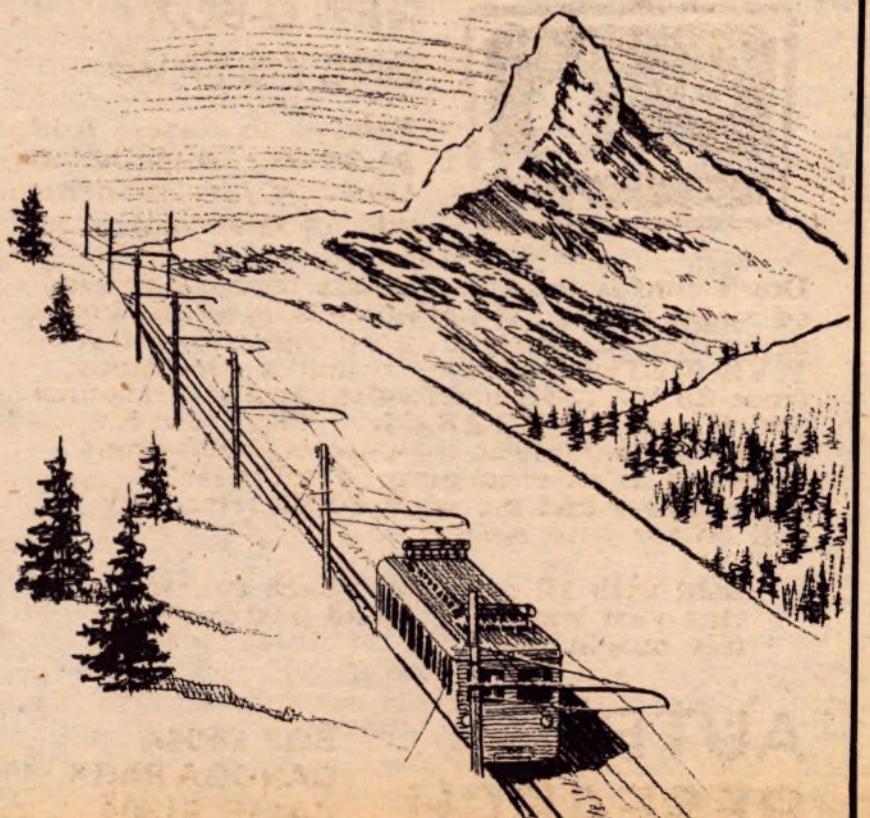
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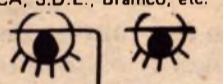


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Repeaters

by
Norm Brooks, K6FO



a monthly column

Two meter FM is growing by leaps and bounds. New radios are coming on the market daily, and the HF hams are buying them faster as the prices are coming down. These radios used to come with 4 channels crystallized, now the trend seems to be to provide 146.94 MHz only, which is now called the "Japanese Secret Channel". Hopefully the manufacturers will add 146.52 as a simplex channel, which will help.

The newcomers from the HF bands mistakenly believe they can come on two meter FM (using their only channel, 146.94) and get a rag chew at any time. They call "CQ" or "QRZ" and are not answered or are rudely answered. They don't understand why. When two of them accidentally meet each other on .94 and start to ragchew, they are quickly silenced by the experienced FM operators with mountain-top locations.

Somebody's got to tell the newcomer that .94 is reserved for emergencies and for calling only. Once contact is established, both stations should move to another channel, preferably a local "simplex" frequency. Somebody has to tell him he won't get enjoyment out of that new radio until he puts more crystals in those vacant spots in his radio. Somebody's got to tell him which groups are operating in his area, and what they do. Tell him which group likes to ragchew, where the Civil Defense gang operates, and which group is interested in exotic electronic experimentation. Explain about "open" and "closed" repeaters and why closed repeaters are "closed". In any case the newcomer should be told the various receive frequencies so he can listen and decide

which local group most closely matches his interests. Then he can join them and get transmit crystals for their repeater.

I am amazed at the number of articles written about traveling across the country with 2 meter FM in the car, and meeting the "nicest bunch of hams on the air". That's great and I'm glad to hear it, but I'll bet those writers are experienced FM'ers who listen a lot and talk little. They know better than to tie up FM channels with a lot of trivia. I too have traveled with 2 meter FM. I too have found that it is better to keep transmissions down to only where traffic directions are needed. Then the local gang comes on and gives the needed directions in a pleasant and efficient way.

I have heard 94 stations "baited". Maybe they came on with "CQ" or "QRZ", which makes it obvious they are not experienced in channelized communications. We should take it on ourselves to tell them what it is all about in a polite way.

The worst thing that can happen on FM is when repeater groups or mountain-top remote bases get into a feud. Those "in the know" about the gripe can chuckle and say "there's W6XXX and K6YYY at it again". But there are many listening who don't know the background and form opinions from the bickering they hear. Some of these listeners are people whose opinions are respected by others. And these listeners are beginning to brand the FM repeater and remote base operators as a bunch of kids playing "king of the mountain". This kind of reputation will hurt us badly if it gets too widespread.

What can we do ?

1. Let's be polite to everyone on the channelized frequencies. Remember he may have no other channels. He can't just turn the dial and QSY like he did on HF.
2. If it's obvious he's a newcomer, explain how the channels are used. Keep it polite, and keep it short, so it doesn't resemble a rag chew.
3. Don't bait or badger the poor guy who just got his "rice box". Tell him how to make calls.
4. Tell the newcomer in your area what receive crystals to buy to fill up his set. Tell him something about the groups he will hear, so he can make an intelligent crystal purchase.
5. As to our club stations, remember you represent all of us when you put the equipment on the various "open" frequencies. We all want to be proud of what is going on or what is being said when that automatic identifier comes on.

K6FO

Communications Activities

Many repeater and simplex groups have found that an occasional communications exercise for a public event develops a lot of interest among the membership, as well as some good publicity for the group and for ham radio. We gave some examples an issue or so ago, but here are some more recent ones.

The Tulare County ARC (WB6OPG repeater) manned a booth at the county fair with an on the air all band station and gave hand-out material on ham radio to the public. The Mount Baker ARC (Washington) worked with the State Patrol and the Sheriff's department in covering the county over Halloween. The Mesilla Valley Radio Club (New Mexico) provided communications between five check points and the headquarters for a cross country motorcycle race in the desert. Before and after the race, however, they were involved in two different flash flood emergency operations. Total time: 67 hours. The Mt. Diablo Radio Club (W6CX repeater) did something for the Walnut Festival. The Grizzly Peak VHF ARC (WB6AAE repeater) provided communications for a March of Dimes Walk-a-Thon.

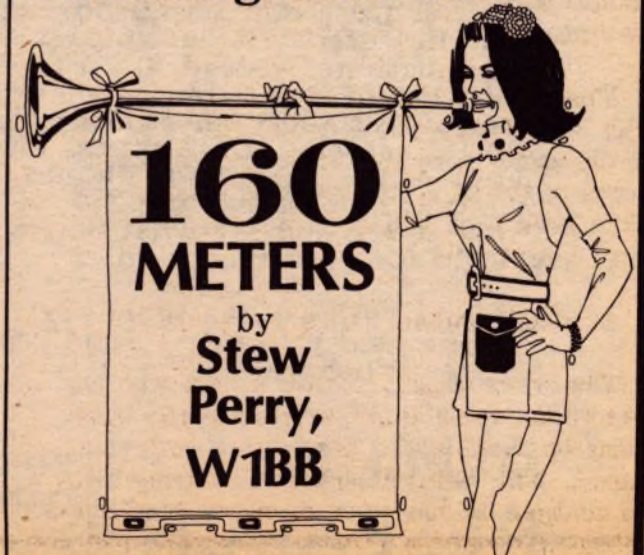
These fund raising walks are increasingly common and the bigger ones are greatly helped by communications. If you are wondering how this fits in with the new regulations, keep in mind the communications are for the safety and convenience of the public participating. See August "Worldradio" for an article by this writer on organizing communications for these walks.

(From C. A. R. C. "Relay", Les Cobb, W6TEE, Editor)

New Repeater Directory

The latest ARRL Repeater Directory is a 35 page 6 x 9 free booklet which users will find very handy particularly when you plan to travel. Send a large S. A. S. E. with 24 cents postage.

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EDITORIAL

Armond Noble, WB6AUH

Editor, Worldradio

There are currently before the Federal Communications Commission petitions asking that the amateur call signs reflect the class of license.

WORLD RADIO takes an editorial stand against the implementation of such an idea. We shall briefly touch upon the several reasons for our stand. Opposing viewpoints will be given equal space.

First, Amateur Radio has always been a rather democratic hobby. Income, education, sex, race, color, creed and the like present no barriers to joining the fraternity and fully participating. A few weeks ago I was invited to an informal weekday luncheon meeting of a repeater group. Those gathered were an attorney, a top executive, an independent businessman and men who work outdoors who showed up in their work clothes and boots. For the purpose of the meeting, and what each had to offer, they were equals.

When hams are introduced to each other it always seems to be name and call. Would the call reflecting license class put up even the slightest barrier or defensive attitude? If so, we don't need it.

The ARRL Board of Directors has gone on record as opposing such a move. Prior to that, when we first mentioned the matter in an editorial in WORLD RADIO the mail ran 15 to 1 in support of our position. All fifteen were from higher class licensees who did not want their call changed.

There has been quite an investment in call sign tie bars, cuff links, wall plaques, auto license plates, rubber stamps, QSL cards, etc. But the reason most quoted was "people all over the world know me by this call".

The one other letter felt that the higher class licensees should have some extra prestige.

There is nothing wrong with prestige, but should it be earned by actions rather than by completion of some testing?

There are after all Ph. D holders and Phi Beta Kappa members on skid row while at the same time half of the new millionaires in the U. S. over the past ten years have been high school dropouts. Who has the "prestige"?

Accomplishment is its own prestige.

The other night I visited a ham who has one of the most impressive stations ever seen by these eyes. Homebrew rack and panel, FM, SSB, RTTY, TV. At one time or another he has been on every band from

160 meters to 1296 Mhz. He presses a button and his call comes up on the RTTY gear or the TV monitor. He is trustee for a 420 repeater, is making printed circuit boards, works as a broadcast engineer, formerly was a high level civilian technician with the Air Force and holds an FCC First Class Radio Telephone license and a General Class ham ticket.

A brilliant ham, his projects require sophisticated test gear not seen in 99 percent of the shacks. He feels that his class of license is all he needs. It would be silly for a license manual crammer whose station is comprised of a used Goony bird to enjoy whatever status a distinctive call sign would give.

But there are other, more important reasons to be against this reshuffling of all the call signs.

The Federal Communications Commission operates on the funds obtained from the taxpayer. A call sign change would require a massive, costly change on the FCC computer records. In these inflationary days when the average taxpayer is struggling to keep his head above water it is absurd to spend his money on such a pointless endeavor.

This country is faced with serious problems. And considering how these problems affect the lives of ourselves and our children it is indeed staggering to think that public officials want to spend money on anything so absolutely inconsequential as giving everyone a new call sign.

One argument in favor of call signs which show the class of license is that one could instantly identify whether stations belong in the band segment in which you hear them. Not so! All you can be certain of is that the call sign matches the band segment. You'd still have to look in FCC records to see if the license is valid at all!

There are issues facing us which beg for the concern of educated people. There is something wrong if high-paid government officials can't find something a little more demanding to spend their time on than a matter which hardly deserves the title of "trifle".

This tax money, which bleeds most people, should be spent on something of more value. I would rather see ghetto children be given a hot meal, ex-convicts helped on their way to becoming useful citizens, cancer research move quicker, the crowding in the schools relieved, or any of a hundred things rather than my work and your work going to support totally insignificant computer time reshuffling calls.

Now, if people wish to spend their own disposable income on such things that is their own business. Possibly a solution would be to move the licensing structure out of the government's hands and turn it over to the League. Such a thing is done in other countries.

Call signs could be handled like the auto license plates in many states. If you wanted a distinctive call you could pay \$25 or so and get your initials or whatever. It might be interesting if, for example, the club station at the University of Southern California had the call W6USC. The club station at the General Motors Institute at Flint, Michigan could have K8GMI, etc. You could have any call sign you wanted, if you were willing to pay for it.

But for those who want an ego trip at taxpayers expense, forget it.

Maybe we should devote a little more time to what we do with whatever call signs we have, rather than all this time spent on what our call sign is.

In California the special plate plan has been rather successful. The money goes to combat environmental problems.

Possibly the extra, voluntary fees for personalized calls could go to the monitoring division of the FCC to solve our own pollution problems.

Back to ham radio, we could let the League handle the whole thing. There is precedent for this. Stock brokers, who come under federal jurisdiction, are licensed and policed by their own association. The government agency, in this case, the Securities Exchange Commission, only acts in the gravest matters.

Possibly such a solution would be of great benefit to Amateur Radio. Thus we would be free of typical government solutions to problems which often are akin to amputating the arm to cure a hangnail.

The League with its program of elected SCMs, Directors and Vice-Directors will always be closer and more responsive to the feelings of the amateur than appointed government staff employees.

In approaching this matter we urge the FCC Commissioners and amateurs to ask themselves this question. . . "Is there possibly anything more important or a better use for the time, effort, people and money which would be spent on reshuffling the amateur call signs?"

If you can think of something, put it there instead.

Dayton Dayton Dayton Dayton Dayton Dayton

Dayton Dayton Dayton

Dayton Dayton Dayton

by Eunice Bernon, K8ONA

The world's largest hamvention, sponsored annually by the Dayton Amateur Radio Association, will be held at the Dayton Hara Arena and Exhibition Center April 27-28.

"This year's attendance is expected to pass the 6,000 mark," said Ted Suarez, K8BSC, convention chairman.

"Exhibits will open six hours earlier this year, at noon Friday, April 27, to allow time for early arrivals to talk to manufacturers and dealers," he said.

The Dayton Hamvention is ham utopia. Its diversified program offers activities in every phase of the hobby. Originated in 1952 with 250 registrations, it drew a record crowd of 5,500 ham enthusiasts from 38 states and four DX (distant) countries in 1972.

The flea market, which covers several acres, is its biggest attraction.

This year it will open at 6 a. m. Saturday, April 28, so that vendors and traders can set up tables. A flea market permit, \$1, is required for each display space, and everyone in the area is requested to have a registration ticket.

Free parking at the arena will include provisions for self-contained trailers. There also will be free bus service from downtown Dayton hotels.

The "Radio Amateur of the Year" award will be presented, on a national basis this year, to the ham operator who has exhibited outstanding public service to amateur radio and to the public at large.

Clubs were asked to submit written nominations to awards chairman, Russ Gardner, W8TPC, Dayton Hamvention, Box 44, Dayton OH 45401.

Forum and group discussions will include: very high frequencies; distant contacts; American Radio Relay League; ARPS (Amateur Radio Public Service); radioteletype; MARS (Military Affiliate Radio Systems); frequency modulation; antennas; amateur television and state of the art.

Many ham organizations will hold open house in individual hospitality suites. The Old Timers, Quarter Century Wireless Association and Single Sideband Net dinner will take place on April 27, at 6 p. m. at the Sheraton Dayton Hotel.

Guest speaker will be Senator Barry Goldwater, K7UGA, president of QCWA.

Write to Russ Gardner, W8TPC, for dinner reservations.

Ladies' activities at the arena will feature a "coffee corner," buffet luncheon and entertainment.

(From "The Plain Dealer")

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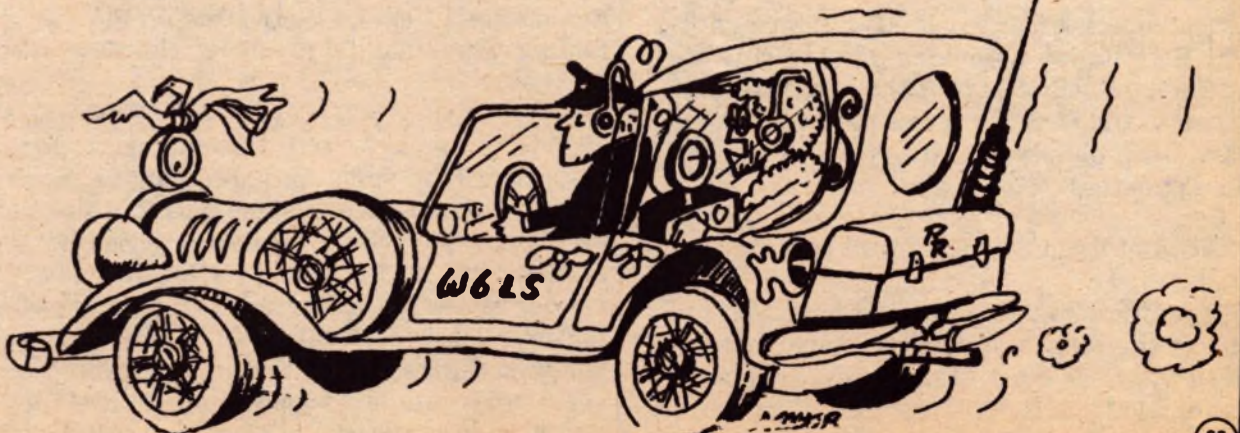
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ARRL

(Continued from page 2)
border should apply for an operating permit 30 to 40 days in advance. W/K licensees apply to the Department of Communications, Ottawa, Ontario, Canada or its six regional offices. Canadians apply to the FCC, Washington, D.C. 20554. Travelers visiting elsewhere should allow at least two months for processing of requests. Write to ARRL headquarters for details on a particular country. League headquarters is open Monday through Friday for visitors, with the exception of April 20, May 28, July 4 and September 3. Printed traveling instructions available upon request.

March 22, 1973

The Continental Traffic Net of the Daylight National Traffic System is now operational. K7IFG is CTN manager and WA8MCR is assistant net manager, eastern area. Most region nets in the eastern and pacific areas are also active. Present daytime region net managers are WIYNE first region, WA2RYD second region, WA3QOZ third region, WB4PNY fourth region, W6INH sixth region, W7AXT seventh region, W8CHT eighth region, WAØSIG twelfth region. Leadership personnel is still needed in the Central Area and Eastern Canada. CTN meets on 14.313 kHz at 1830 GMT on Monday, Wednesday and Friday with daily operation scheduled to begin April 1. Check with your SCM, page 6 QST, to find out how you can participate in DNTS activities.

March 29, 1973

ARRL has now filed strong opposition with FCC concerning the proposal to raise license fees, Docket 19658. The document points to drops in numbers of licensees as a result of the 1964 and 1970 fee actions. Further, it requests more services to the amateur, including automatic mailing of license renewal forms; free retesting after a failed examination and more frequent examinations at more numerous locations, in justification of present fee levels. The full text will appear in the May issue of QST.

M A R N

MOSAIC AMATEUR RADIO NET

The Mosaic Amateur Radio Net is an international, non-profit, non-commercial association dedicated to serving mankind and fostering international good will.

It is an association of Masonic amateur radio brethren and members of the appendant Orders. Membership in the Mosaic Amateur Radio Net - better known by its acronym MARN - is open to all members of the Masonic Order and those of the appendant Orders who possess any class of amateur radio operator license.

There are no dues and the nominal membership fee is perpetual. You are invited to write for information.

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(adv.) *Deo et Fidei*

International Symposium of Radio Hams in the Satellite Era. Israel, June 24-29, 1973. On the occasion of the 25th anniversary of Israel and Israel Amateur Radio -- Affiliate of IARU. For a bulletin which includes information of the Symposium, travel accommodation and sightseeing tours, please apply to: Organising Committee, Israel Amateur Radio Club, Tel Aviv, P.O. B. 16271.

Amateur Radio's JOURNALISM Worldradio

This publication has many and varied purposes. One usage is that when a non-ham asks, "What do hams do?", you can give them a copy. In this paper they will read about the exciting world of Amateur Radio.

The stress in our articles is on the human relationship. We believe in the people-to-people idea.

We enjoy reporting the adventures of motivated people. We hope such stories serve to activate others.

This is a dynamic and challenging time in which new directions can be explored.



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by Nick Hauck, K6QPE
a monthly column

It's always fun to show others how SSTV works and when Bob Patton, WB4RKU and I had a recent QSO, he mentioned he had guests in the shack. You say this happens all the time--so what! Well, after exchanging pictures I asked Bob how old he was and he said 14 years old. As a father with an upcoming teenager, I thought to myself, isn't amateur radio just great for kids and especially when you are able to send pictures. I have tried to bribe my daughter with the promise of contact lenses, a car, just so she will get her license. If any of you have found the secret, let me know.

The recent worldwide SSTV DX contest seemed to have every SSTV'er on the air at the same time and it seemed the same frequency. For as long as I have been a "HAM", 18 years, I have always locked the doors and left home during DX contests, as I have been unable to accept the practices of most of the "contestants". However, I did promise myself to get my feet wet for the sake of this column. In the first hour I worked 5 countries and made a total of 16 contacts during that time. As with all contests, I heard QRM, calling on existing QSOs and a host of other practices that would make an FCC monitor join the Boy Scouts. Anyway, I'm not here to write against contests but I found that those who prepared were knocking them off and doing it correctly and legally. Numbers were given "on camera" as required and at least for the U. S. amateurs, audio used prior to and concluding a QSO which the FCC asks us to do. There were some Europeans on video explaining everything rather than using a combo of audio/video. The good Professor in Italy should know by now our rules and regulations. I am sure

everyone had a good time and will be better prepared for the next one. Who knows; I may even try again.

The first and only slow scan television Handbook has finally gotten off the press and is available from 73 Magazine for \$5.00. Don Miller, W9NTP, and Ralph Taggart, W8DQT, have co-authored a fine handbook that every amateur should have in his library. It's a must for the SSTV'er starting out with basic principles and ending with operating procedures; however, they have left many details to the operating manual. Trusting that the equipment has been properly aligned, a chapter on subject matter and how to present it would have been welcome. It is very easy to quickly run out of ideas on what to put on camera except girls and yourself. Not that I have anything against girls but which way should we go? We must not be commercial yet we should make it interesting enough for the poor guy on the other end of the "tube". There is an enterprising chap in New Orleans who has 3 or 4 different tours of his city. Interesting? You bet. Had any good ideas lately?

For you people who enjoy crowds, circle September 29, 30 right now. That's the '73 ARRL New England Convention at Dufrey's in Massachusetts. A mini slow scan convention second only to Dayton. Speaking of Dayton, it's here already. April 28, just one day. It's the World's Largest, so how come they can't extend it to 3 days so you can get in on more activities? You need the extra time just to locate old friends and see all the exhibits. Come on fellas, one day?

I was told by Clarence, K6IV, "Mr. Robot", that a complete SSTV station was used at the "Miss America" contest last year. How's that for a test pattern?

Radio week is coming up just prior to Field Day, June 23, 24. What better way to show off SSTV to amateurs and non-amateurs. Notify the local newspaper that this year something NEW has been added. Don't be bashful about asking TV newsrooms to cover your Field Day activities. News is slow on the week-end and if you make an appointment several weeks



K6QPE

in advance, I am sure they will try to cover this newsworthy event. After all, we are practicing to assist in a disaster that would be of benefit to the whole community. Don't call them on the phone, pick several amateurs armed with lots of pictures to tell your story. Make it short, and sweet, that's how they work. Always follow-up with a telephone number to call for further information. Sorry. I got away from SSTV for a brief second but I promote Amateur Radio every way I can, and you should also. Remember, "Communicate", that's the name of the game.

Send SSTV News to Nick Hauck, K6QPE
13248 E. California Ave.
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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.

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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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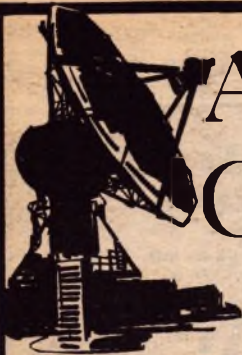
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AMSAT OSCAR

a monthly column

by Richard Osman, WBØHUQ

Exciting! That's the word that best describes operating through Oscar 6.

Satellite operation is the wave of the future and utilizing Oscar 6 gives one the opportunity to be a pioneer in what Amateur Radio of tomorrow will be.

Eventually there will be stationary satellites at several thousand miles up, looking at 180 degrees of the earth. This will mean that with but minimal equipment, on bands wider than all the HF bands put together, we will be able to communicate with hams around the world, with ease, on a most reliable basis. The potential is unlimited.

Today, transatlantic QSOs are being made with moderate equipment. This operation is one that is a contribution to Amateur Radio. It offers the chance to "be in on something".

Currently AMSAT information lists only 41 states represented on Oscar 6. Operation is badly needed from Kentucky, Louisiana, Nebraska, Nevada, New Mexico, South Dakota, Vermont, West Virginia and Wyoming. Just think of it, you could be the object of a real pile-up. You would be rarer than most European countries. Don't miss out on the chance, when you are an "old timer" to have some stories to tell the younger fellows of "how it was way back then". What is happening today may well be "spark gap" compared to what is coming. Coming that is, if enough of us get on, utilize, improve, and show "the powers that be" that amateurs deserve the frequencies. Possibly

a new history of Amateur Radio will someday be written with the title "Two Meters and Down". You can be a pioneer.

Late information can be obtained from the AMSAT Net to be found at:

1200 to 1300 GMT Sunday-14.280 MHz SSB and 14.080 MHz RTTY (850 Hz shift)

1300 to 1400 GMT Sunday-21.280 MHz SSB and 21.080 MHz RTTY (850 Hz shift)

1800 to 1900 GMT Sunday-14.280 MHz SSB and 14.080 MHz RTTY (850 Hz shift)

1900 to 2000 GMT Sunday-21.280 MHz SSB and 21.080 MHz RTTY (850 Hz shift)

0000 GMT Monday-3.855 MHz SSB

Special WIAW bulletins on Oscar 6 orbits are heard at:

1900Z Monday through Friday-3.580, 7.080, 14.080, 21.080, 28.080 MHz CW and Sunday 2100Z same frequencies.

0200Z Sunday - 3.625, 7.095, 14.095, 21.095 and 28.095 MHz (wide and narrow shift)

AMSAT supplies data on a telephone tape machine (301) 654-1166.

Submit your log periodically to AMSAT (P. O. Box 27, Washington, D. C. 20044) and you will receive a colorful QSL in return.

Oscar is in a circular orbit 910 miles high. It is line-of-sight to stations about 2,500 miles away. Thus Amateurs 5,000 miles apart should be able to communicate through it.

OSCAR circles the earth every 115.0 minutes at an inclination of 101.77 degrees. In that time the earth has turned to the east under it 28.75 degrees in longitude. If you have information for one orbit you can figure all future equator crossing times and longitudes. The broadcasts will give orbital predictions for the next day.

The speed of the satellite is in excess of 15,000 mph. Therefore the Doppler shift will make signals slowly drop in frequency on your receiver as much as 4-1/2 kHz each pass. The power output on ten meters is about one watt to a dipole.

OSCAR's repeater input is on two meters 145.90 to 146.00 MHz. The output is on ten meters --- 29.45 to 29.55 MHz. Signals will be heard throughout this 100 kHz passband, and up to 50 kHz above and below it.

All modes can be used through it, but CW and SSB are the most efficient. Technicians may operate through the satellite (FCC waiver).

The satellite will appear overhead at approximately the same time each day, around 9 a. m. and 11 a. m. each morning and 9 p. m. and 11 p. m. each night, regardless of your location. The morning passes come down from over the North Pole, and the night passes come up from across the Equator.

A flyover lasts only about 20 minutes, so you must know the times pretty closely.

A ten meter beam helps but many operators are using just dipoles or long wires. Ten watts of two meter power is adequate to work through the satellite, particularly on an overhead pass.

Field Day might be a good place to make some OSCAR contacts. With local newspapers giving picture and story coverage to the event working through a satellite might be another "news peg" for them and further inducement to use the story.

Speaking of newspapers don't forget to send material about your satellite communications to WORLD RADIO. How and what you are doing may well serve as an inspiration to other hams. This paper is also sent to Congressmen, FCC Commissioners, and other public and private agencies. Let's show them what the amateur is capable of.

Book Review

There is only one thing worse than being uninformed and that is being mis-informed. Some of the on-the-air "technical discussions" about antennas can make one cringe.

The problem usually is lack of a solid foundation in the fundamentals. If one is truly well grounded his knowledge can evolve, growing and growing. However, if the foundation is shaky one can only go so far before the whole thing falls apart.

The recent book "Wire Antennas" by William Orr, W6AI, belongs on every shelf. The author has been around the block a time or two in his 39 years as a licensed amateur. He is employed by a firm (EIMAC) whose technical competence is unsurpassed.

Chapter One is titled "Sugar-Coated Antenna Fundamentals" and sub-titled "What You Don't Know Will Hurt You" and nothing could be closer to the truth.

The other day on 40 meters a conversation was heard in which an amateur said he had put up a dipole and found himself with a 4 to 1 SWR. He was quite baffled for he told that he had used a balun and had cut it exactly to length from the chart. And now he was stuck.

While such an attitude could be most understandable from a newcomer he was also telling that he had just passed his Advanced and was waiting for the license to come in the mail.

The amateur on the other end, offering assistance was a bit surprised to find that the new Advanced had never heard of the idea of plotting an SWR curve across the band.

It may not be completely the fault of the puzzled one. Unfortunately, the majority of technical books are written as dry as dust. They can even bore the most dedicated.

Such is not the case with Orr's book. It has zip and zing and is written with humor.

It covers dipoles, trap dipoles, inverted Vs, verticals, ground planes, quads, long wires, short wires, tuners, grounds and a special chapter for apartment dwellers or those who live in areas with restrictions on antennas.

Its 192 pages should be able to solve any antenna problem and the price of \$3.95 is cheap enough insurance against blowing your finals or sounding dumb on the bands. If unavailable at your local dealer add another 25 cents for postage and order from: Radio Publications, Box 149, Wilton, CT 06897.



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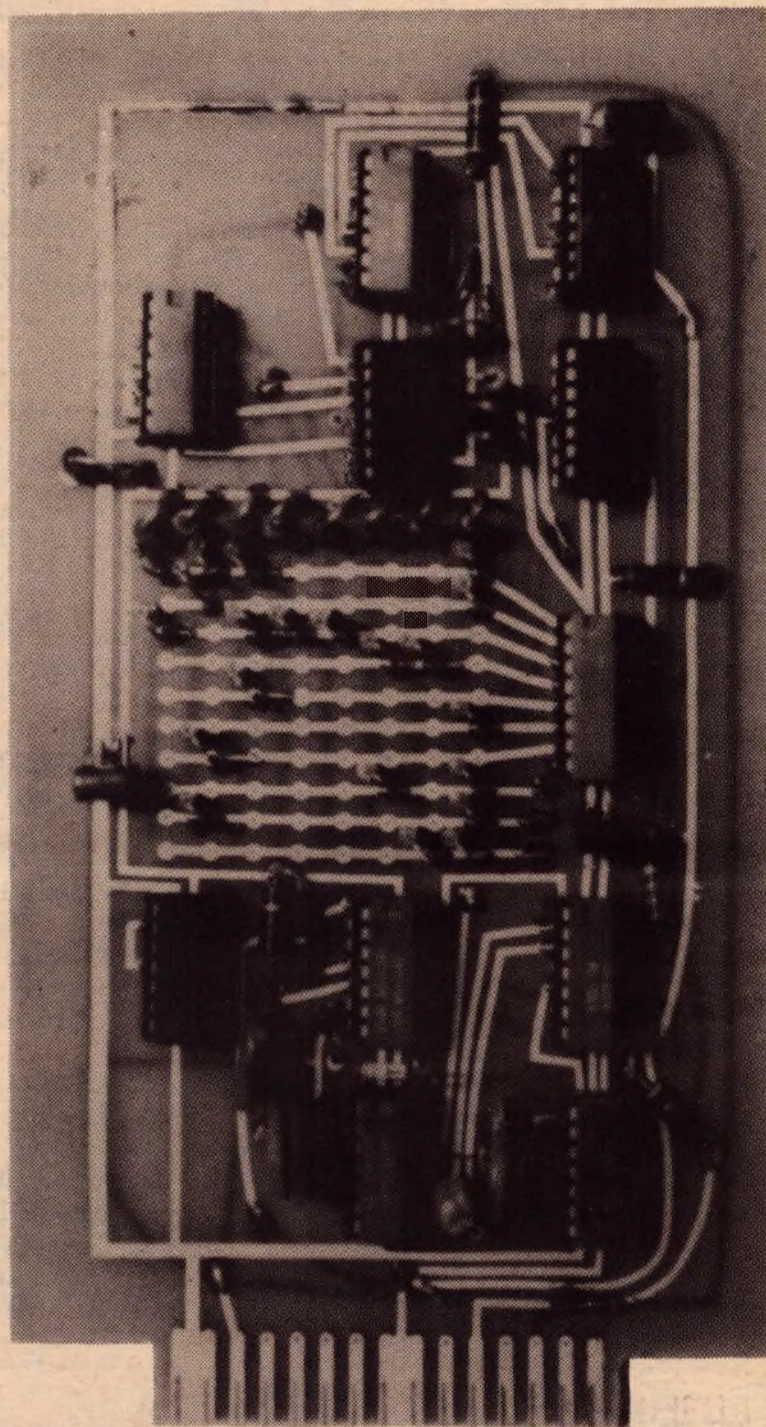
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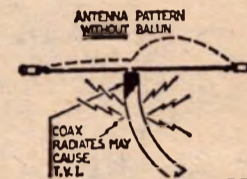
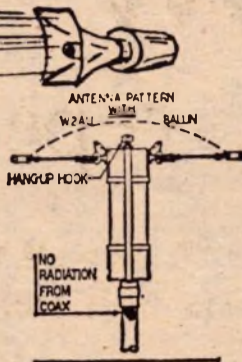
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"Thanks fer checkin' in" by Lou Huber, W7UU a monthly column

If you want to find out of what mettle these feisty fellows are made, read Chapter XIV of THE PLEDGE, by Leonard Slater. This book is on the shelves of most sizable libraries.

Sec. 97.114(c) Dissected

The most heartening development in ham radio for some time is the arousal of the ARRL over recent adverse rule-makings by the FCC. The ARRL board in January passed a forceful resolution on this matter; that was followed in March QST by a masterful hard-hitting editorial which outlines the situation in detail. If you haven't read the editorial and the resolution (both in the front pages of March, 1973, QST), by all means do so. They are an excellent blueprint of what is wrong.

For far too long the ARRL has done little to assert its leadership. Someone, somewhere (these things are hard to uncover), has taken note of this weakness -- and the inevitable occurred: all of a sudden we find the FCC telling us that ham radio isn't what we think it is -- that, by gum, the rules must be changed to suit some new (but ever so wrong) FCC notions.

We pause here to observe that the beginning of ham radio predates the creation of the FCC by about 30 years. The thrust of amateur radio was decided by basic urges in the kind of people who become radio amateurs. All this is well stated in the resolution passed by the ARRL board.

We give John Huntoon, general manager of the ARRL, credit for seeing this FCC storm coming. A year or more ago he wanted to take counter-measures and face up to the FCC's monkey business. But the ARRL board at that time tut-tutted him into sitting on his hands. Today it's a new ball game. He and ARRL President Dannals have the green light. Like Huntoon, Dannals also is determined to set things right.

Brighter Now

This "new look" of the ARRL gives pause to those who have given up on the League as a champion of ham radio's best interests. Dark as things were under former President Denniston, they are much brighter now. The moral is that when you have an organization you should use it. The ARRL is the one and only BIG tool we have to keep ham radio running right.

As we pointed out in last month's column, ham radio "lucked out" on the phone-patching question when the ARRL had gone into a funk -- and a commercial firm (Carterfone) pulled our chestnuts out of the fire for us. ARRL's inactivity at that time seems to have been due to misguidance by the ARRL general counsel, Bob Booth. He invariably finds reasons for NOT doing things to enhance or safeguard ham radio.

Meanwhile the legal route toward straightening out the FCC already is being taken by a couple of up-and-coming New York hams. They're brothers: W2YHO and W2OXR -- Herman and Reuben Gross, respectively. Herman (W2YHO) has sued the FCC, seeking annulment of Sec. 97.114(c), the new third-party-traffic regulation which became effective on 1 December 1972 through Docket 19245 (the "Eyebank Inquiry"). Reuben (W2OXR) is Herman's attorney.

Sec. 97.114(c), declares W2OXR. And here let us quote Sec. 326 (while adding the emphasis shown in the W2OXR brief):

"Sec. 326. Nothing in this chapter shall be understood or construed to give the Commission the power of censorship over the radio communications or signals transmitted by any radio station, and no regulation or condition shall be promulgated or fixed by the Commission which shall interfere with the right of free speech by means of radio communication."

If you have read FCC Docket 19245 you will recall that the FCC tried to excuse itself from violating Sec. 326 of the Communications Act by citing Lafayette Radio Electronics Corp. vs. U. S., 345 Fed. 2d 278. In this case, however, the petitioner (Lafayette, a manufacturer of CB gear) sought to have the FCC permit CBers to discuss equipment on the air -- and the court denied the petition. W2OXR demolishes the FCC's reliance on the Lafayette case by making clear that usage as sought by Lafayette is one thing, whereas message content as regulated by Sec. 97.114(c) is an entirely different matter.

Even more to the point, perhaps, is W2OXR's citing of Sec. 605 of the Communications Act (the secrecy clause), which bars everyone (the FCC included) from meddling with the content of messages. Says W2OXR:

"This section further confirms that the Congress, in empowering respondent (the FCC) to regulate and classify the various radio services, excluded message content as a basis for such regulation and classification. It is clear, therefore, that even if the Constitution gives the Congress the power to inquire into and to regulate message content, Congress never gave the respondent (the FCC) that power."

W2OXR elucidates on this point with the following example:

Wiretap Analogy

The situation is directly analogous to that which would obtain under the following circumstances: The telephone companies have on file with respondent (the FCC) and other regulatory commissions different tariffs for residential and commercial services. Assume that the telephone companies monitored calls to instruments at residences and assessed those subscribers at commercial rates because their wire-taps disclosed that some of the conversations at such residential installations were 'communications the purpose of which is to facilitate the regular business or commercial affairs of any party.' Such practices by the telephone companies would have to be sustained if the challenged regulation, Sec. 97.114(c), is valid.

"Needless to say, such wire-tapping would never be countenanced for a moment and no common carrier would be so foolhardy as to interpret its tariffs thus. A residential service does not cease to be such because of occasional or partial use of its facilities for messages of a business nature. Of course, if the dominant or prevailing nature of the messages are commercial so that it appears that the subscriber is conducting business from his home, that might constitute a change of usage.

The above suit was filed in the U. S. Court of Appeals, 2nd Circuit, New York, early last November. After 60 days the FCC had not filed anything to counter W2OXR's petition of ten pages, which set forth facts demonstrating that radio amateurs since the beginning of radio have handled third-party traffic in which business affairs were the subject matter, "in accordance with the guide lines laid down by the Communications Act." So, the period having passed during which FCC legal counsel could have asked for delay, W2OXR took the next step: filing of a brief (26 pages) in support of the petition. This was done by W2OXR late in February.

Both the petition and the brief not only lay bare the clumsy, inexcusable meddling that Docket 19245 is; they dissect it, dismember it and lay it on the table for all the world to see. And a bloody mess it is! We don't have space for the entire appeal, but here are the highlights -- either directly quoted or by way of description:

The "Nitty Gritty"

Sec. 97.3(b) of the FCC rules and regulations, and the key verbiage of the international amateur-radio regulations, W2OXR points out, are identical. Both define amateur-radio communication as being "with a personal aim and without pecuniary interest." For almost half a century, W2OXR observes, "respondent (the FCC) and its predecessor, the Federal Radio Commission, has consistently understood those words to mean that:

"Any amateur operator may transmit or deliver from any amateur radio station a message of any kind . . . regardless of the source or text, provided that no pecuniary or other consideration is directly or indirectly paid or promised him."

Thus the new regulation was a complete surprise to the entire ham-radio fraternity; furthermore, it resulted from a proceeding (the "Eyebank Inquiry") which purported to deal with an almost wholly-unrelated matter. Not only that, but the FCC put forth the assertion that *congestion of the ham bands would result if Sec. 97.114(c) were not enacted -- yet this "congestion" is without any factual basis whatever!*

W2OXR makes a point of the fact that the FCC has not moved to bar discussion of politics, religion and other matters by hams, because a U. S. Supreme Court decision in another case prohibits such FCC action under the free-speech clause of the Constitution. Then W2OXR asks: "If the Commission cannot prohibit discussion of religion under the free-speech provision, why may it bar a message relating to business? Differently stated: If rule 97.114(c) is valid, why may the Commission not promulgate another rule tomorrow eliminating congestion created by messages and discussions relating to politics and religion?"

Secrecy Clause Cited

The FCC violates Sec. 326 of the Communications Act of 1934 in setting up

"However, sporadic, incidental, occasional or irregular communications of a business or commercial nature should not be deemed to affect the character of a residential telephone installation nor of an amateur radio station."

Automobile Analogy

Further in support of his argument, W20XR continues:

A related classification problem exists in respect to automobiles. Some are licensed as passenger and some as commercial vehicles. The use of a vehicle for pecuniary purposes, i. e., taking passengers for hire, destroys the privilege of registering the same as a passenger vehicle. However, it has never been suggested that to travel to one's office or to work, or the transportation of hand-carried packages, or joining a neighborhood car-pool to get children to school changes the use classification to commercial usage. The sweeping nature of the challenged regulation proscribes the right of an amateur on a vacation or on a boat to include his office among the calls he might make. It is, therefore, harsher than what is required by any bona fide regulatory purpose. This Court should, therefore, strike down the challenged regulation as arbitrary."

Another telling point in W20XR's brief is his contention that Sec. 97.114(c) stifles the use of amateur frequencies in violation of the FCC's mandate from Congress (in the Communications Act), as expressed in Sec. 303(g) thereof, "to encourage the larger and more effective use of radio in the public interest."

He reviews at some length the achievements of amateur radio over the years, giving instance after instance of how communication has been improved due to the enthusiasm and dedication of radio amateurs to their hobby. Indeed, it may be hams' success in leading the field that brought on these recent adverse rule-makings of the FCC. Says W20XR on this:

What Motivated FCC

"There is reason to believe that the enactment of the challenged regulation (Sec. 97.114(c)) was triggered by amateur pioneering in a field in which the commercial interests have dawdled. Amateurs throughout the country have erected repeater stations in many communities at great expense to themselves. These enable them to reach the repeater with extremely low power from automobile or hand-held transmitters.

"Some amateurs have installed 'auto-patches' in their cars, which enable them to reach their home stations via these repeaters and to dial their home telephones by remote control. A shocked commission issued a warning and public notice on August 4, 1972, against 'handling business communications.'

"But then, someone soon realized that this warning was predicated on a non-existent prohibition and therefore decided at the last minute to tack such a prohibition as a rider on to the 'Eye-bank' Report and Order, which was awaiting promulgation after lying about for a year and a half.

"Now, all 'auto-patch' activity takes place on VHF bands where there is no shadow of 'congestion.' Moreover, the amateurs have developed their own techniques for handling individuals who 'hog' the repeater frequency. They do not need any help from respondent (the FCC) with this problem.

Real Motives Obscured

"It may be that the organization of political protests and religious conventions are entitled to every first-amendment freedom demanded for them because society is the ultimate beneficiary of such freedoms. However, the TV and auto mechanic, the doctor and dentist also serve society and their freedom of speech should not be suppressed because they simultaneously may be earning a livelihood from its exercise."

Finally, W20XR examines Sec. 97.114(c) as being unreasonable on its very face. How is any amateur to know when a message, a phone-patch statement or other communication is, or is not, "any transmission or communication the purpose of which is to facilitate the regular business or commercial affairs of any party?"

"More often than not," W20XR says, "the 'purpose' of a message is not evident on its face. Therefore, acceptance of a message will require an investigation as to its purpose. But messages may go through five or six hands before ultimate delivery, each time requiring a re-check of 'purpose' to avoid violation of the law.

No "Noseying" Wanted

"Nothing can be clearer, however, than that the Congress intended that the full meaning of a message was to remain the private concern of the sender and the addressee, so far as is practicable (Sec. 605 of the Communications Act).

It did not want operators or anyone else 'noseying' into its meaning.

"The alternative, therefore, places on the operator the risk of violation of Sec. 97.114(c) because of a 'purpose' of another person. To make the operator subject to a penalty because of another person's intent is a violation of due process, such as making a chauffeur responsible for his passenger's wish that he strike down a pedestrian. . . . The chilling effect of the challenged regulation is as stringent a restraint on speech as is imaginable. By threats and fears as to its uncertain reach, it effectively squelches freedom of speech to all third parties."

W20XR concludes his brilliant arguments in these words:

"Regulation Sec. 97.114(c) should be annulled as an infringement of the freedom of speech granted under the Constitution and Sec. 326 of the Communications Act, and an infringement of the privacy of communications granted under Sec. 605 of the Communications Act and upon the further ground that respondent (the FCC) acted arbitrarily and capriciously in enacting a regulation that is unreasonable on its face, without an adequate record or notice, and which will have the consequences of stifling activity it is mandated to encourage."

Bravo, W20XR! These are words that amateur radio long has needed in the halls of justice. We hope they will be heeded, and that your petition will be granted. However, at this writing that has not been done. The fight for ham radio's rights has perhaps only begun. The amateur-radio fraternity is deeply indebted to W20XR for his wise and brave effort. Hopefully it will succeed; but, if it does not, we still have Congress -- and this writer, for one, already is knocking on those doors.

Have you written your congressmen and senators to complain of what the FCC is doing to your hobby? Believe it, man -- the FCC sits up and takes notice when a congressman or senator wants to know how come the FCC did something. We have votes; we command respect for what we have accomplished and what we are doing. Get your congressmen and senators working for you: write them once, and write them again and again to make sure they understand what has been going on. You have plenty of material to draw on in the above.

It has been wisely said that for evil to succeed, all that is necessary is for good men to do nothing.

Things To Do

The 1973 ARRL Southwest Division Convention is going to be held at the Sheraton-Universal Hotel on Veteran's Day Weekend (October 20-22). This hotel is located in the East end of the San Fernando Valley and it has superb rooms, restaurants, free parking, exhibit areas, lecture rooms, and banquet facilities. Ticket prices still have to be determined but there will be separate prices for those who want to attend just the banquet, the show, or both. There'll also be a reduced pre-registration rate. Interested hams should send a current QSL to Bill Welsh (W6DDB), 2814 Empire Avenue, Burbank, California 91504. Convention information will be forwarded as soon as possible.

The Rockaway Amateur Radio Club, Inc. presents their annual Spring Auction and FM'ers Get To-gether, to be held Friday evening April 27th, at 8:00 p. m. at the Hall of Science Building, World's Fair Grounds, Flushing Meadow Park, Queens, N. Y. The event is open to anyone wishing to sell or buy amateur radio gear. Doors open at 6:00 p. m. to accept items for sale. \$1.00 donation at the door. RARC Auction Committee, P. O. Box 341, Lynbrook, N. Y. 11563.

The Hit and Bounce Slow Net, a recently founded child of the Hit and Bounce Net, meets to handle traffic: Sat., Sun., Mon. and Thurs. on 7,140 kHz, at 1300 GMT. All participants are welcome from coast to coast. Kurt Meyers, W8IBX, HBSN Manager, 5179 Burns, Detroit, MI 48213.

HAMFEST! Cape Cod's fabulous Hyannis, Massachusetts home of New England ARRL Convention sponsored by FEMARA September 29 and 30. Giant flea market, seminars, FM, SSTV, NEDXCC, YL trips, banquet, show, dancing, 2 pools, golf, beaches, sailing. Early bird registration: \$3. KILDLC, 572 Berkley St., Taunton, Massachusetts 02780



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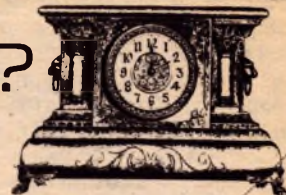
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NEXT MONTH'S ISSUE--
A major story on Charlie Wells, K4SKI, and his trip to Liberia where he was honored for his role, as an amateur, in obtaining drugs for that country during an epidemic. Stan Kellog, W6KPR, does a photojournalism essay on the school for deaf-mute children in Mexico operated by Ed Everett, XE2YX. The story of a repeater group issuing flood warnings. A review on a fantastic new book for internationally minded hams.

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GAIN	12DB	GAIN	13DB
FRONT TO BACK RATIO	26DB	FRONT TO BACK RATIO	26DB
BOOM LENGTH	40 FT.	BOOM LENGTH	50 FT.
	3" OD .065 WALL		3" OD .250 TO .065 WALL
MAX. ELE. LENGTH	36 FT.	MAX. ELE. LENGTH	36 FT. 1 IN.
SWR	1.1 TO 1	SWR	1.1 TO 1
WIND SURFACE AREA	10.5 SQ. FT.	WIND SURFACE AREA	12.5 SQ. FT.
WIND LOAD (80 MPH)	240 LBS.	WIND LOAD	280 LBS.
WIND SURVIVAL	100 MPH	WIND SURVIVAL	100 MPH
TURNING RADIUS	26.5 FT.	NET WEIGHT ASSEMBLED	110 LBS.
NET WEIGHT ASSEMBLED	85 LBS.	TURNING RADIUS	30 FT.



W7CVD's 5 ELE. M520

All 40, 20, 15 and 10 meter beams have 3" OD booms .050, .065 and .250 walls depending on model of antenna. Made of top grade aluminum alloys 6063-T6 and 6061-T6.

3 ELE. 20 METER BEAM		4 ELE. 20 METER BEAM	
GAIN	8.5DB	GAIN	10DB
FRONT TO BACK RATIO	20DB	FRONT TO BACK RATIO	25DB
BOOM LENGTH	20 FT.	BOOM LENGTH	30 FT.
	3" OD .050 WALL		3" OD .050 WALL
MAX. ELE. LENGTH	36 FT.	MAX. ELE. LENGTH	36 FT.
SWR	1.1 TO 1	SWR	1.1 TO 1
WIND SURFACE AREA	6 SQ. FT.	WIND SURFACE AREA	8.0 SQ. FT.
WIND LOAD (80 MPH)	145 LBS.	WIND LOAD (80 MPH)	195 LBS.
WIND SURVIVAL	100 MPH	WIND SURVIVAL	100 MPH
TURNING RADIUS	21.5 FT.	TURNING RADIUS	21.5 FT.
NET WEIGHT ASSEMBLED	41 LBS.	NET WEIGHT ASSEMBLED	41 LBS.



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M340	3 ELE. 40 METER BEAM (full size)	\$375.00
	Gain 8.5 DB gain. Boom length 38.5 ft. 3" OD .200 wall to .065.	
M240	2 ELE. 40 METER BEAM (full size)	\$189.95
	Gain 5.5 DB. Boom length 16 ft. 3" OD .065 wall.	
M720	7 ELE. 20 METER BEAM	\$389.95
	Gain 14 DB. Boom length 58.5 ft. 3" OD .200 wall to .065 wall.	
M620	6 ELE. 20 METER BEAM	\$299.95
	Gain 13 DB. Boom length 50 ft. 3" OD .200 wall to .065 wall.	
M520	5 ELE. 20 METER BEAM	\$169.95
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M420	4 ELE. 20 METER BEAM	\$139.95
	Gain 10 DB. Boom length 30 ft. 3" OD .065 wall.	
M320	3 ELE. 20 METER BEAM	\$ 89.95
	Gain 8.5 DB. Boom length 20 ft. 3" OD .050 wall.	
M715	7 ELE. 15 METER BEAM	\$169.95
	Gain 14 DB. Boom length 40 ft. 3" OD .065 wall.	
M615	6 ELE. 15 METER BEAM	\$139.95
	Gain 13 DB. Boom length 32 ft. 3" OD .065 wall.	
M415	4 ELE. 15 METER BEAM	\$ 89.95
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M510	5 ELE. 10 METER BEAM	\$ 89.95
	Gain 12 DB. Boom length 20 ft. 3" .065 wall.	

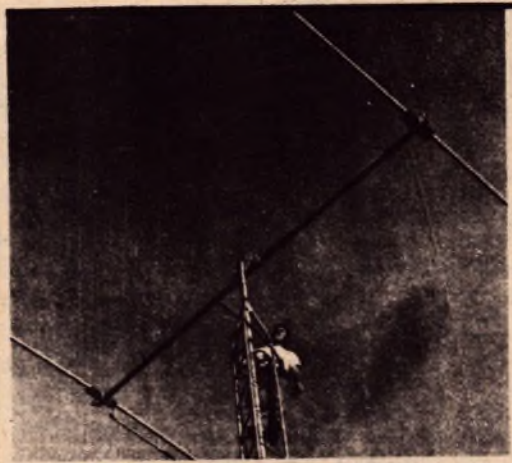
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DB54	5 ELE. 20 & 4 ELE. 15 INTERLACED BEAM	\$229.95
	Gain 12 DB—20 10 DB—15. Boom length 40 ft. 3" OD .065 wall.	
DB43	4 ELE. 20 & 3 ELE. 15 INTERLACED BEAM	\$179.95
	Gain 10 DB—20 8.5 DB—15. Boom length 30 ft. 3" OD .065 wall.	
DB32	3 ELE. 20 & 2 ELE. 15 INTERLACED BEAM	\$109.95
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DB76	7 ELE. 15 & 6 ELE. 10 INTERLACED BEAM	\$239.95
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DB65	6 ELE. 15 & 5 ELE. 10 INTERLACED BEAM	\$219.95
	Gain 13 DB—15 12 DB—10. Boom length 32 ft. 3" OD .065 wall.	
DB44	4 ELE. 15 & 3 ELE. 10 INTERLACED BEAM	\$109.95
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40 METER 2 ELE. BEAM

2 ELE. 40 METER BEAM	
GAIN	5.5DB
FRONT TO BACK RATIO	17DB
BOOM LENGTH	16 FT.
	3" OD .065 WALL
MAX. ELE. LENGTH	66.5 FT.
SWR	1.1 TO 1
WIND SURFACE AREA	10 SQ. FT.
WIND LOAD (80 MPH)	230 LBS.
TURNING RADIUS	34.5 FT.
NET WEIGHT ASSEMBLED	67 LBS.

3 ELE. 40 METER BEAM	
GAIN	8.5DB
FRONT TO BACK RATIO	20DB
BOOM LENGTH	38 1/2 FT.
	3" OD .250 TO .065 WALL
MAX. ELE. LENGTH	69 FT.
SWR	1.1 TO 1
WIND SURFACE AREA	15 SQ. FT.
WIND LOAD (80 MPH)	335 LBS.
TURNING RADIUS	40 FT.
NET WEIGHT ASSEMBLED	145 LBS.



W7GVA's 7 ELE. M720 AND 6 ELE. M615

7 ELE. 20 METER BEAM	
GAIN	14DB
FRONT TO BACK RATIO	26DB
BOOM LENGTH	58.5 FT.
	3" OD .250 TO .065 WALL
MAX. ELE. LENGTH	36 FT. 1 IN.
SWR	1.1 TO 1
WIND SURFACE AREA	13.8 SQ. FT.
WIND LOAD (80 MPH)	340 LBS.
WIND SURVIVAL	100 MPH
TURNING RADIUS	34 FT.
NET WEIGHT ASSEMBLED	135 LBS.

6 ELE. 15 METER BEAM	
GAIN	13DB
FRONT TO BACK RATIO	26DB
BOOM LENGTH	32 FT.
	3" OD .065 WALL
MAX. ELE. LENGTH	24 FT.
SWR	1.1 TO 1
WIND SURFACE AREA	7.7 SQ. FT.
WIND LOAD (80 MPH)	190 LBS.
WIND SURVIVAL	100 MPH
TURNING RADIUS	20 FT.
NET WEIGHT ASSEMBLED	65 LBS.



The International Mission Radio Association is a group of Amateur Radio Operators and associates dedicated to providing communication facilities and to help in providing equipment, to those engaged in Missionary or volunteer services. It is a non-denominational, non-profit organization with a rapidly expanding membership of men and women from all walks of life throughout the world.

People Helping People

by Sister Mary, WA5VBM



Father Joe Panizzo, WB8NGW, (left) and Walter Clouse checking the instruments of a four-place Cessna 182 before take-off.

One of the newer Voices of IMRA is: Father Guiseppe Panizzo (Father Joe), WB8NGW. Father Joe was born in 1941 in a little town (official census is listed at 1000 people, but the parish priest can never account for more than 900 at any one time) about 20 miles from Venice, Italy, and his family is still there. "I am one of 14 children," he proudly explains, "with one sister in the convent in Italy." Father Joe is 5 feet, 11 inches tall and has brown hair and brown eyes.

Father Panizzo first came to the U. S. in 1964, as a student at the PIME Seminary at Maryglade, Detroit, Michigan. At this time Father became interested in flying. Another student brought his plane with him to the Seminary and Father Joe first "soloed" in it in 1965. He received his license in 1970.

To back-track a little... Father Joe returned to Italy, completed his seminary studies in Milan and was ordained in 1967. He came back to Detroit in 1969, where his responsibilities as vocation director for PIME (Pontifical Institute for Foreign Missions) leave him little time for other interests. But when Father Nick Maestrini, WN8NAD, asked him to go to the East Detroit Radio School with him, Father Joe was hooked by Amateur Radio. Father Joe says: "I didn't care to go, but I went anyway and I got so interested that I soon passed my Novice exam. That was in January of 1972... and in June I passed the General exam." There was a little red-tape with Father's licensing because he is not a U. S. citizen (he is a citizen of Italy) but



14.280
MHz

holds U. S. residence papers. In due time, however, Father received his U. S. Call Sign, WB8NGW.

Father Joe first heard of IMRA through communications with other missionaries in the States. He wanted to know more, so he and Father Nick attended the IMRA convention in Rochester, Minnesota.

The station located at the PIME Provincial House is equipped with a Galaxy 550 GT-A and a TH6DXX Thunderbird 6 element antenna mounted 30 feet above the building. Total height of the antenna -- tower height plus the building height -- is 78 feet.

Father says his flying and his hamming "are not just for fun or as a hobby". He is serious about it and hopes to eventually serve at the PIME missions along the Amazon River in Equatorial Brazil, where the order has two planes for covering the distance to its far flung mission outposts and where they will have a radio operator when Father Joe Panizzo arrives.

IMRA Newsnotes

Sylvester Connolly (WIMD) is not only President of IMRA, but he doubles as a radio detective. Almost as good as Dick Tracy. He was able to locate Father Killian Hazell (TI2WTC) in all the chaos of the Managua earthquake. Father Killian's mother died Friday morning, January 12 and Sylvester was asked to contact Fr. Killian to call him home. Sylvester soon discovered that Father Killian had left Costa Rica on his way to Managua to assist in Catholic Relief services. Undismayed, Sylvester began trying to trace Father Killian's footsteps and by a lucky chance located Father Killian, delivered the sad news. Father Killian was able to return to Brighton, Massachusetts, his home town, for the funeral of his mother which was on Monday, January 15.

Father Phil Pick checked into the Net on January 17. He was using an HKØ call sign from San Adres Island where he had "rendezvoused" with his sister from Milwaukee for the wedding of their nephew. All arrangements for the meeting between Father Phil and his sister were handled by Sr. Mary Lumena (K9CJO).

On January 25, emergency traffic was brought to the IMRA Net by WA5EZJ, Jane Pinkerton, San Antonio, Texas. The message was picked up by XE3LK, Fr. John, who was the only station with good copy on WA5EZJ. Medication for a leukemia victim in Paraguay had been returned to Dr. Jerry Newton in San Antonio without explanation. There was a possibility that

the medication had been returned because of the patient's demise, or...there was always the other possibility...that there had been a foul up in shipping. It turned out to be a shipping error. The addressee in Paraguay was on leave of absence and the medicine was still needed by the indigent Paraguayan national for whom it was ordered.

All the above information was obtained through the diligence of Brad Dye, ZP5TQ, Asuncion, Paraguay. Brad did not let an unanswered telephone deter him. He called around until he found someone who knew why the medicine was not accepted and who needed the medicine.

Stations who assisted in this traffic were: WA5EZJ, XE3LK, WA5VBM, HRIMM, K3CVY, TI8GT, and WA5OJC.

On Sunday, January 28, Anna, HK5AZA, and Sam, W4HLY, worked together on obtaining medication for a leukemia victim in Cali, Colombia.

January 30 saw a priority message called into the Net by a Sister in Ohio. The message was for Fr. George J. Joly, PY8ZAA, and was of "time-value". We were able to get the message to a station who was keeping a schedule with PY8ZAA within the hour. The Sister in Ohio reported that she received a return message from Fr. George within 6 hours of the time the message was put on the IMRA Net.

On February 1, it was Anna, HK5AZA, with emergency medical again. 10 injections (I. V.) 50 milligrams each of Thiotepa was needed urgently at the University Hospital in Cali, Colombia. Again, all the Net members pulled together bringing two doctors, a pharmacist, and someone to take the medicine to the airport, on to the Net frequency within a few minutes. Anna reported back the next day that the medication had arrived and was now being administered to the patient.

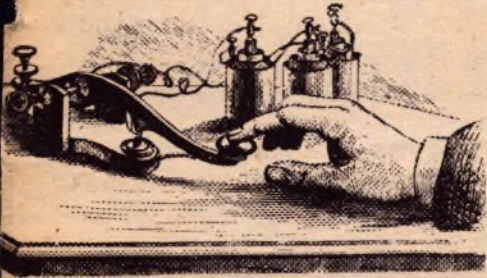
Tom Barbour, W9LII, is enroute to Tegucigalpa, Honduras. He has been checking into the Net along the route to pick Net reports.

Toward the end of January, Tom Barbour, W9LII, got the urge to get a first hand look at the Managua disaster area, so he and his 12-year-old grandson, Tim Staker, drove to New Orleans where they left the car and flew to Tegucigalpa, Honduras; Managua, Nicaragua; and San Jose, Costa Rica. On the trip, they saw Frank Savat, WA5YOI, in Shreveport, Louisiana and Ernie Hinojosa, HRIMM, in Tegucigalpa.

Sister Mary, WA5VBM, received a long-distance telephone call on Feb. 5, from the Manned Spacecraft Center (NASA) in Houston. They had just gotten a report from AP teletype to the effect that one of their engineers (John H. Cooper) had been killed in a mountain climbing accident in Argentina, but they and the family had received no official notice. They wanted to know if Sister could get a message of inquiry to Argentina for verification of the death.

(Turn to page 15, please)

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 issue.

Part I - Pioneers

Chapter Two. . . The New Hobby

. . . By slow steps they were gradually achieving recognition. In 1906-07 there was published in the Weekly Western Electrician, of Chicago, the first American book-length treatise bearing the title "Radio Telegraphy", which explained the make-up and operation of all the known methods of transmission and reception. By 1907 these amateurs had grown to sufficient strength to rate a regular monthly column in Electrician and Mechanic magazine. The inauguration of this department was a tremendous boon to the transmitting amateur, for it afforded him his first consistent supply of practical constructional information on current developments.

In the July and August, 1907, issues of this magazine there was described the construction of a simple amateur station of that time. It consisted of a Ruhmkorff (induction) coil, a condenser and a spark gap for the transmitter, and a simple coherer-decoherer for the receiver - the reason for the latter in place of a crystal being that the coherer could be homemade, while the crystal could not; although, provided the mineral could be secured, the crystal set was the easiest to fashion. This article presaged a long series of detailed constructional treatments in Electrician and Mechanic and other magazines.

This same magazine also published in 1907 a table showing the relative performances of different types of transmitting and receiving equipment for that day. It told that with a 15 inch spark coil and an antenna 180 feet high, one might reach out 75 to 100 miles.

An alternative to the 15-inch spark coil was an oil-immersed 1/4-kilowatt transformer and a battery of Leyden jars; with this combination, 100 miles was guaranteed.

Chapter Three. . . Amateur Communication

The most significant dividing line in amateur history comes at about the year 1908. It was during this period that from the welter of experimenters, scientists, commercial engineers, inventors and would-be inventors hoping to establish "systems" of wireless or to exploit stock companies, all of whom combined to make the heterogeneous group whose borderline activities can be called either amateur or not as one prefers, there emerged the type of individual who constitutes the radio amateur as we know him to-day.

True, there had been previous examples of this type - defined nowadays as a person interested in radiocommunication solely with a personal aim and without pecuniary interest - but as a class they did not exist until the radio art had passed through the first ten or a dozen years of its existence, and in its commercial aspects had reached a certain stability. This latter condition in the United States was brought about by the coalition of a number of competing systems - the deForest, Shoemaker, Stone and Massie systems, and their exploiting companies - into the "wireless trust" of those days, United Wireless. Prior to that time there had been much confusion between the amateur and commercial, for often both combined the attributes of scientific curiosity and commercial acquisitiveness.

The dividing line once fairly definitely established, amateur radio began to increase in importance, and eventually found itself on the road to its ultimate destiny.

In 1908 the Electrician and Mechanic began to devote an entire page or more to radio. In these columns appeared the names of many amateurs, prominent even then, who were to become internationally renowned figures in the field of radio. It was in 1908, too, that Hugo Gernsback, a clever Belgian promoter, manufacturer, and shopkeeper on Fulton Street in New York City, already well known through his E. I. Company catalog and amateur supply house, began the publication of Modern Electrics. The yellow cover with the mermaid twined around it soon became familiar to all the early amateurs and the residue of the electrical experimenters. That this group was indeed a residue was borne out by the fact that the contents of Modern Electrics soon became predominantly radio in character, as more and more pages and departments on this subject were added, a trend which was to reach its peak four years later.

During the year 1908 the use of tuners invaded amateur radio, via the electrical magazines, through books on radio by such writers as Victor H. Laughter and Leon W. Bishop, and by word of mouth

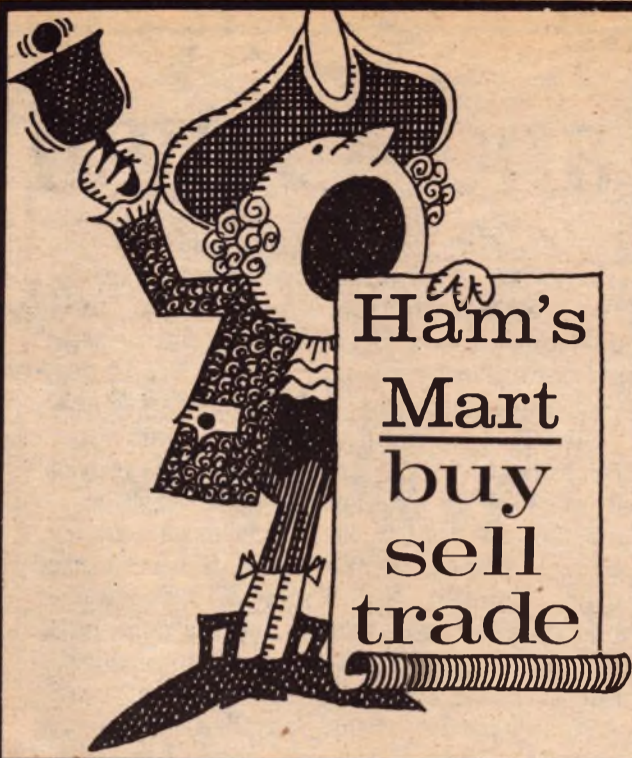
delivered in person and over the air - the traditional methods of disseminating amateur information. Prior to that time, only one or two of the better commercial stations had receiving tuners, the important patents on which were held by Marconi. The remainder relied on natural periodicity as the sole form of syntony employed, in exactly the same fashion as had Marconi in his early experiments back in the early 1900's. A few employed direct coupling - deForest and Telefunken had transmitters of this type which could be called tuned - as did some amateurs, but Marconi controlled the famous "four sevens" patent which provided loose coupling, with relatively sharp tuning, to both transmitter and receiver.

It was from this tuner situation that the amateur commercial was later to develop. The fact that amateurs had tuners prior to 1910 - even though they were nothing more than long coils of wire with a sliding contact - lent them a tremendous advantage over the inadequately equipped stations of United Wireless and the United States Navy, which used obsolete untuned, or at best direct-coupled, equipment for several years thereafter.

On January 2, 1909, the first amateur radio organization was formed, the Junior Wireless Club, Limited, of New York City. Five young lads whose average age was perhaps an even dozen years, with the assistance of their parents and Professor R. A. Fessenden and Miss Lillian Todd as advisers, elected 11-year-old W. E. D. Stokes, Jr., president. George Eltz, vice-president; W. Faitoute Munn, recording secretary; Frank King, corresponding secretary; and Frederick Seymour, treasurer. Then, having run out of offices as well as members, they set to work to build themselves some radio stations. From this somewhat naive beginning, bright with the self-sufficiency of youth, an organization of real and lasting worth was to grow.

Another organization was also being formed in January, 1909 - one of much greater pretensions. The Wireless Association of America was a child of Hugo Gernsback, publisher of Modern Electrics. After the first few months of its existence, Gernsback announced a membership totalling 3200. By November, 1910, he claimed that this number had jumped to 10,000. It was easy to recruit members for such an organization; there were no dues and no obligations. Youthful electrical experimenters signed up in swarms, attracted by the famous names in the honorary membership group and the ease of becoming a member. The membership represented a fairly accurate index of national interest in radio, although not, of course, of the number of active transmitters.

(Continued in next issue of WORLD RADIO)



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