Worldradio

• international friendship-local public service

WCARS calls on Congressman Moss

by Armond Noble, WB6AUH

Calling for action against individuals who cause jamming and interference on the amateur bands were officers and members of WCARS when they met with Congressman John Moss, (D. Calif.) in his Sacramento office on December 29, 1971.

Charging that the Federal Communications Commission failed to act on complaints, the WCARS (West Coast Amateur Radio Service) group played tape recordings of jamming for the nine-term Congressman who sits on a committe that oversees the activity of the FCC.

Displaying a knowledge of amateur radio that impressed the visitors, Moss was most sympathetic to the position of those at the meeting which had been arranged by Al Maston, W6JYQ, of Sacramento, Calif.

Hearing the amateurs tell that when they complain to the FCC about intentional jamming (even getting bearings and identification) the FCC tells them that a "lack of manpower" makes it impossible to get to all such cases, Moss said, "we have many problems with the FCC" and went on to say, "we'll see if we can make something happen."

Refering to the often stated FCC remarks about lack of appropriations necessary to do an adequate policing job Moss did say that very few government agencies have the money or the manpower to do a one-hundred percent policing job. But in the matter brought before him about the jamming he said, "we'll get some response."

High school teacher Paul Schuett, WA6CPP, of Lodi, Ca., told that he had written a letter to the FCC in San Francisco which was "refered to Washington", which in turn was "refered to San Francisco." Hearing that prompted Moss to ask for documentation regarding all such incidents and copies of all letters sent to the FCC that had no results.

Emphasizing the seriousness of the problem was Dan Nunn, WA6IAB, of Sacramento, who told that a great deal of Military Affiliate Radio System

(Turn to page 3, please)

Congressman John Moss, WCARS President Bill Schwarz, K6KZI; Secretary Christine Silveira, WB6FYH, Director Paul Schuett, WA6CPP.

Congressman John Moss

Al Maston, W6JYQ, plays off-the-air recording of jamming.

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Worldradio is two-way communications. Send in amateur radio news and information. Share your knowledge and experiences with your fellow amateur and Worldradio reader. Photographs will be cared for properly and returned. We are most interested in your comments, and suggestions.

Worldradio has a Swan 270 Cygnet, in carrying case, available for loan to medical personnel, relief agency staff, etc., going overseas on the short-term volunteer tours. The rig operates on 220 volts A.C.

Subscriptions and advertisements, essential to the support of this project, will be very thankfully received.

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SIMULATED EMERGENCY TEST
January 29-30

ARRL

Official Bulletin #352 December 9, 1971

For the first time in almost five years a third party agreement has been signed. Trinidad and Tobago, 9Y4, and the United States have agreed to permit the handling of messages or other communications on behalf of third parties, effective December 18. Messages must not be important enough to be sent by commercial channels and neither operator may have any pecuniary interest in the traffic. This updates the list appearing on page 90 of November QST.

Official Bulletin #354, Dec. 23, 1971

All amateurs in the ARRL Field Organization, comprised of those sections listed on page 6 of QST, are urged to participate in the annual Novice Roundup. The 1972 event will incorporate several changes. The Roundup will take place during the period February 5 through 13. A shortened maximum operating period of 30 hours with minimum time-off periods has been adopted. The exchange will incorporate RST plus ARRL section. Separate multipliers will be available for each DX country worked. Full details on this event appear on page 69 of the January 1972 issue.

(More notices on page 22)

WCARS

(MARS) overseas and hospital traffic moved through the WCARS frequency and that the jamming made such message handling, at times, impossible.

Those attending the meeting pointed out that the number of amateurs engaged in jamming activities are but a tiny fraction of the amateur body. It was estimated that not one-tenth of one percent of the amateurs were involved in such practices which is certainly far, far below the incidence of anti-social or deviant behavior in the general population.

WCARS President Bill Schwarz, K6KZI, of Daly City, Calif., voiced the opinion that those individuals who maliciously interfered with communication (violating FCC rules and regulations) should be deprived of the privilege of holding an amateur license.

Moss said he knw the FCC had a reluctance to prosecute and further commented that while the ranks of FCC personnel have not grown in a direct ratio to the growth in licensees they must police, "this does not mean that they are powerless to act."

Moss asked to be furnished identification of amateurs who use profanities and obscenities on the air and said, "we'll follow it up."

The attending amateurs made the charge that FCC headquarters in Washington was unaware of the seriousness of the jamming situation in California until just last week.

Moss suggested that WCARS officials in southern California contact two members of the California congressional delegation who are on the Communications subcommitee of the Interstate Commerce Committee.

Mentioning by name Congressman John Schmitz, (R-Santa Ana) and Congressman Lionel Van Veerlin, (D-San Diego), Moss told that Van Deerlin had worked in the broadcasting field and thus should have a good understanding of communications.

Moss said he well knew that profanity on the air and malicious interference were violations of the law. He further commented that he had long been in favor of policing agencies, such as the FCC, judging its own needs and submitting its budget directly to congress for approval rather than their budget going through the Executive branch which usually reduces the agency's request. But Moss further commented that "the problem is not always appropriations.

As the meeting was ending Moss again asked for full documentation on the matter and said, "we'll follow it up" by asking the FCC why they failed to act on the complaints. He told the WCARS group that they could "expect a fairly quick response and they would be informed as to what course of action had been taken."

Others attending the meeting, (in addition to those previously named) were: WCARS Secretary Christine Silveira, WB6FYH, of Colma, Ed Johnson, W6TRR; Bruce Baker, W6YRK; and Harry Sands, WB6GKR, all of Sacramento, Calif.

Operating daily, all day, on 7255 kHz, WCARS has over 1,000 members plus thousands more who use the service. Founded in 1963, WCARS functions primarily for public health, safety and welfare.

The activities run the entire gamut from helpful road and weather information to direct involvement in life-saving efforts. The organization has always been at the forefront of assistance in serious emergencies such as the Los Angeles earthquake in February, 1971. Having a rich history in public service, the WCARS actions in life or death actions are now beyond all count. In more relaxed moments the service operates as a general contact frequency with member station roll call starting at noon local time. ●

In a Fantastic Series of Coincidences . . .

Amateur Radio Operator in Florida Saves Lives of 2 Poisoned Children in Ecuador

By ALAN MARKFIELD

Two orphans in Ecuador who ate deadly poison are alive today because Wayne Keelin just happened to be the right man in the right place at the right time.

Keelin, an amateur radio hobbyist was at home in Riviera Beach, Fla., idly turning the knobs of his shortwave set about 10 p.m. on April 19 when, he said, he "heard this man speaking desperately in Spanish.

"I answered," Keelin told The ENQUIRER, "and he introduced himself as an army colonel in Quito, Ecuador.

"The colonel said, 'Five children in an orphanage here got into some lead sulphate from an old electric battery. Two are dead already and three others are dying. We need 22 ampuls of an antidote known as EDTA. There is none available in Ecuador."

Luckily not only is Keelin a ham radio operator who just happened to hear the colonel's call for help but he also:

- Speaks Spanish fluently.
- Is chief pharmacist at Palm Beach Gardens Hospital, which means he fully understood the orphans' medical plight and knew how to obtain the drugs quickly at night.
- Has a wife, Hilda, who is a pharmacist at West Palm Beach's Good Samaritan Hospital, which had on hand 12 ampuls of the scarce antidote, slightly more than half the amount needed.

AMATEUR RADIOMAN Wayne Keelin and wife Hilda at radio that saved children's lives.

But the chain of luck and coincidence didn't end there.

Said Keelin: "At the colonel's request I called Miami for the home of the Ecuadoran consul general, Gonzalo Jacome. Miraculously, he just happened to be right by the phone when it rang.

"My wife in the meantime called Miami to make arrangements for Jacome to pick up the antidote from a poison control center there.

"We already knew that a plane was scheduled to leave Miami International Airport at 2 a.m. for Ecuador.

"By a further coincidence, Jacome had a houseguest who was booked to take the plane and could take the drugs with her.

"Again fortunately, the houseguest knew the exact location of the orphanage and could get the drugs there quickly."

But then Jacome learned that the Miami poison control center had only 10 ampuls of the antidote EDTA in stock. Keelin and his wife dashed for their car to drive 75 miles to Miami with the 12 ampuls from the West Palm Beach hospital.

"I prayed that nothing would go wrong on the road," said Keelin.

"I knew we'd have only minutes to spare.

"We reached Miami International Airport just as passengers were being called aboard the flight. Jacome and his guest met us at the ticket counter.

"The antidote reached Ecuador in time to save two of the children."

The Keelins' deed earned them the gratitude of the Ecuadoran government, The ENQUIRER was told by Maria Teresa Jacome, daughter of the consul general. Her father is currently on vacation in Europe.

She said, "My father was very impressed at the Keelins' willingness to become involved, especially their driving down to Miami after midnight.

"Thanks to Mr. Keelin and his radio, two young children are alive today in Ecuador," said Miss Jacome.

(From Midwest Amateur Radio Service publication "Radio Watch")

WB4PWF

Man has too much in common to be separated by political blocks or racial barriers...

Whatever splits up mankind is artificial and can be tolerated or ignored -

Whereas whatever unites mankind is real and profound.

Thor Heyerdahl
(via amateur radio)

JACKSON HOLE, WYOMING

Sylvester Connolly, W1MD, was one of the first amateurs to make contact with the disaster area after the worst earthquake in history struck Peru. He helped the victims get messages to their friends and relatives in the United States. He has also aided desperately sick people by obtaining medicine and relaying advice from doctors to hospitals in remote areas.

When asked which piece of emergency traffic stood out as the most memorable, Syl said it was the case of a baby in South America who had to be taken to the Children's Hospital in Boston, via New York City. When the people left sunny South America the weather in Boston was good, but by the time they arrived in the United States, a blizzard had developed and their plane was grounded in New York. They had to continue the trip to Boston by railroad and the ambulance which was to meet their plane was cancelled. They finally reached Children's Hospital in Boston using a taxi for the last lap. It was a whole day's work of telephoning and legging it around Boston and by the time Syl finished, he was wishing he could trade in his KWM-2 for a dog sled. (The child was saved).

In September of 1970, Syl was chosen as "Ham of the Year" by the Federation Of Eastern Massachusetts Amateur Radio Association. The

(Turn to page 20, IMRA column, please)

Sylvester Connolly W1MD

by Sister Mary, WA5VBM

WCARS ELECTION RESULTS

Dec. 15, '71

PRESIDENT

Bill Schwarz, K6KZI, 219*
Howard Lakey, WB6RJG, 173

VICE PRESIDENT
Wendel Brown, WA6OCA, 387*

SECRETARY
Christine Silviera, WB6FYH, 387*

TREASURER

Earl Burdick, WA6BDN, 388*

NET CO-ORDINATORS
Jerry Mosteller, W6AJC, 331*
Mike Enos, WA7JYM, 331*

DIRECTORS

George Lyle, K7ZAU, 290*
Len Clark, W6GFQ, 226*
Paul Schuett, WA6CPP, 225*
Les Lester, W6LHQ, 155*
Red Blanchard, W6AG, 142
Mortie Smith, WA6SNE, 131
Joe Veliz, K6IH, 103
Doug Freeman, WA6AZW, 98
Chan Howland, W6WMA, 82
Jay Mathes, WA6CLB, 54

Directors not up for election this year: Wayne Nail, WB6CBW; John Stocksdale, WB6ABW; Edward Aston, WA6NJA; Tom Eavenson, K5BWZ. They serve one more year of the two year term.

No write in candidate received more than two votes.

Election Chairman, Leon Stanley, W7DKB, assisted by Carroll Soper, K7SOT, and Virginia Soper.

...to dream the impossible dream

Amigos de las Americas

Rod Jensen, WB6WKC

What with all the medical and assistance programs in Latin America today, it is easy to be skeptical of their values. One such program, however, has met with hemispheric-wide approval by both the governments and people of the Americas. Its name: Amigos de las Americas.

'Amigos' is a short-term, youth oriented immunization program. Staffed almost entirely by high school and college age volunteers, they have continued to break down the health barriers that prevent Latin America's rapid development. In groups of two or three, these young volunteers spend a three week term - out of a nine week summer project - in a remote village. There, they live and eat with a local family, and give various immunizations- 3,212,000 total in the last seven years. In addition, the volunteers' paramedical training enables them to administer first-aid, and teach health and hygiene. They also hold classes in Laubach Literacy and other courses.

Because of the short length of the actual summer project, as well as being staffed by volunteers sometimes as young as 16, the program seemed unobtrusive enough. Yet no project has been so far reaching or as widely acclaimed in Latin America. The results speak for themselves: The Honduran government has credited 'Amigos' with increasing the average life expectancy of their citizens by five to eight years - in only six, nine-week projects! In Honduras and Guatemala, 'Amigos' has virtually eradicated Polio in the area it has covered. The disease was considered a major one before the campaigns.

The foregoing is only a small portion of the results of Amigos de las Americas. Because of 'Amigos' good record, along with its non-political/non-missionary approach, they have received official invitations from a dozen countries in Latin America.

The real key to success has been the volunteers. These young men and women, most of them falling between the ages of 16 and 23, have optimism and enthusiasm that are unapproachable. They are willing to donate from $175 to over $500 of their own money, as well as countless hours in fund-raising. Their three-week term of work in a village is the culmination of up to ten months of extensive medical, cultural, Spanish language, and community development training. Their willingness to help other people makes immediate friends in the village they are invited to. These villagers find that the United States does not solely mean big business, mismanaged government aid programs, and condescending tourists. To them it means sincere youth, willing to come into their culture, and not impose the North American one on them.

The volunteers, or 'Amigos', are not completely unselfish, however. They receive as much, or perhaps more than the Latin Americans do. But their "compensation" in not the monetary type that so many Americans think of. They receive a spiritual compensation - being able to help others, and exchanging love. They have found the true purpose to life. The 'Amigos' experience gives them a world full of friends, and a chance to see and respect another culture. It is a preparation for tomorrow's leaders.

The program was originally conceived and put into effect in 1965 by Guy Bevil (the present Executive Director). At that time he was the youth minister of the River Oaks Baptist Church in Houston, Texas. He felt that the reason for the young generation's restless attitude was not an undesireable trait, as so many parents thought. He recognized it as a problem of not having any outlets for their good intentions.

Working on the above premise, Bevil developed Amigos de Honduras. It was to be a small immunization program to be sponsored by the local Baptist Church. But things didn't turn out that way. Amigos de Honduras soon found itself with 265 applicants, from all denominations, and even from areas outside of Houston. But the new group, working hard and experimenting along the way, finally put all 265 Amigos into villages in Honduras.

The program was a complete success. The government of Honduras asked for a 1966 project. Guatemala, which was right across the border from the area covered, had heard enthusiastic reports of the work, and also asked for a project. And around the United States the word had spread quickly - applicants from all over the nation were inquiring about the program.

The success resulted in Amigos de las Americas, a non-profit organization incorporated under Texas law as an inter-denominational medical organization. It was completely privately funded, and not dependent on any one person or foundation, which might influence the true intentions of the work.

Amigos

Further refining of the program came in 1966 and in 1967 Amigos took up Guatemala's invitation, sending 289 volunteers to the two countries. By 1970 the project had increased to four countries, including Colombia and Nicaragua, the most needy of the many waiting. Spending their summer in small villages were 405 volunteers- a majority from the many chapters that had sprung up throughout the nation. Nine recognized chapters sent Amigos.

Fourteen chapters, supplemented by "Maverics" from all over the nation, sent 449 volunteers in 1971. The annual budget amounted to over $300,000, raised solely by donations, fund-raising activities, and participant contributions. The Guatemalan project was by far the most extensive with 30 villages being served as usual at the villagers' request. Around 156,000 shots were given in a nine week period. Serving only 17 villages, Honduras gave over 136,000 immunizations in the rugged, sparsely populated state of Olancho. Near the great Lake Nicaragua, the Nicaraguan project yielded 81,000 immunizations in 14 villages.

The Colombian project was in the department of Boyaca, not far from the capital. Here, Amigos were faced with the challenge of door-to-door innoculating, rather than the easier and more productive clinic set-up. The campaign there resulted in Amigos giving 22,000, in eight villages. The total: nearly half a million immunizations!

Since its inception, Amigos has been served by amateur radio. Because the project headquarters in each country is in the field, communications any other way are virtually impossible. If telephone and telegraph services are available, they are often erratic, and of course expensive.

Each country headquarters is linked with each other, and with the national office in Houston, by way of amateur radio. Using a 20-meter link, two times a day and seven days a week, leaders of the organization are able to communicate and discuss vital medical and organizational problems.

Occasionally the radio is used for ordering a life-saving drug, or to inform a volunteer of an accident in the family. Time permitting, phone-patches are conducted. In essence, the radio is the life-line of Amigos de las Americas.

Since 1966, the official communicator for Amigos in Houston has been Bernie Paul, W5YVJ - well known for his many other public service deeds. The field operators change yearly, although many return many times to serve on Staff or in the clinics. The 1971 project included(some of the following worked only in clinics not necessarily with the radio): Bill Skeen, WA6KJW, (Nicaragua); Wayne Lauritson, WA6CBG, (Honduras); Bill Bremmer, WA5RRR, (Honduras); Craig Upson, WA5YGH, (Honduras); Chris Johnson, WA5ZMF, (Guatemala); Joe Hutcheson, WA5SXR, (Colombia); Doug Alexander, call unknown, (Guatemala); and Rod Jensen, WB6WKC, (Colombia and Honduras).

The Drake TR-4 transceiver is used throughout the program in Central and South America along with dipoles and three-element beams. The operators must communicate under very adverse conditions, including varying line voltages (80 to 220 volts nightly in one case); no power at all (more common); antennas falling down; blowing fuses and not having any others; and modifying a rig because no other part found locally can be substituted.

Nineteen seventy two will bring another year of exciting challenges to the Amigos organization. Plans for expansion to 700 participants have been made, yet this is still a strained effort to keep the number down, due to lagging funds. Ecuador, scheduled for entry into the program in 1973, has been pressuring for a 1972 project, and surveys will be conducted this January to determine the possibility.

All of the present countries have asked for project expansions. El Peten, Guatemala's rugged jungle area, has been slated for Amigos work this summer. The area around Bluefields in Nicaragua promises to be another challenging jungle region. The heavily populated area around San Pedro Sula in Honduras, and the Colombian department of Huila may be the next spots in those countries.

That is the program - does it sound hard to believe? Spanish philosopher Miguel de Unamuno said, "Only he who attempts the absurd is capable of achieving the impossible."

High school or college age amateurs interested in the project and who are in the areas listed below are invited to contact me. Doctors and dentists are urged to contact the National Office.

Amigos de las Americas chapters:

WASHINGTON
1. Seattle

CALIFORNIA
2. San Francisco-Peninsula
3. San Francisco-Marin Co.
4. San Francisco-East Bay
5. Santa Barbara
6. San Diego

ARIZONA
7. Tucson
8. Phoenix
9. Scottsdale

NEW MEXICO
10. Albuquerque

TEXAS
11. Houston
12. Dallas

COLORADO
13. Denver

ILLINOIS
14. Winnetka

OHIO
15. Portage Co.

MARYLAND
16. Salisbury

FLORIDA
17. Sarasota

The largest concern of the Amigos, their supporters, and the Latin American governments is the vulnerability of the project in terms of money. Despite its rapid growth rate and the overwhelming support from all areas, Amigos 1/3 million dollar yearly budget is barely sufficient to maintain the program. Towards the end of the summer program the ability to re-order needed medical supplies even becomes doubtful. Amigos de las Americas accepts no government aid, it depends entirely upon people who care - like you. Can you help? The address of the National Office is: Amigos de las Americas, 5618 Star Lane, Houston, Texas 77027

The Eye Bank Net

so others may see

by
Alson Braley, M.D., WØGET
and Wayne Walter, W9DOG

Public service functions are one of several reasons for the existence of amateur radio as a hobby. Since inexpensive and rapid point-to-point communication is one of the characteristics of "Ham" radio operation, it becomes a "natural" for emergency communication among the Eye Banks of the United States.

This became apparent to Dr. Alson Braley, WØGET, a "ham" and ophthalmologist at the University of Iowa, where a patient lost his sight because no donor eye tissue was on hand for corneal surgery nor could any be located after a number of telephone calls.

After a conference with Ted Hunter, WØNTI, another "ham" and professor at the University, as well as being a man of many notable achievements, the Eyeball Amateur Radio Network was conceived in December, 1962.

The idea behind the Net activity was to provide rapid, inexpensive, and effective communication once a day to make known to the participating Eye Banks any emergency requirements for eye tissue and where such eye tissue is available to fill the need.

Medical history and shipping arrangements would be discussed and arranged on the telephone once the eye tissue had been located by the net.

Arrangements were made with the air lines, Highway Patrol, and other public service groups and agencies to move the refrigerated eyes rapidly across country after shipping arrangements had been made. Much of the success of the operation hinged on the cooperation of these fine people.

The Eye Ball Net, sponsored by the Midwest Region, Eye Bank Association of America, was activated on December 20, 1962, at 7:00 A.M., C.S.T. on 3970 kilohertz. Seven cities were involved at the start. These were Chicago, Ill., Columbia, Mo., Denver, Colo., Indianapolis, Ind., Iowa City, Iowa, Oklahoma City, Okla., and Omaha, Neb., St. Louis, Mo,, and Minot, N.D. were added later.

During the first three weeks the Net was in operation, three emergencies arose and an eye was furnished for each within twenty-four hours.

From this humble beginning the Eye Bank Net, as it is now known (to remove any frivolity implied by the name Eye Ball Net), grew rapidly to 18 "hams" in 14 cities in 14 states by June 20, 1963.

The first anniversary on December 20, 1963, saw growth to 60 "hams" in 47 cities in 26 states participating to locate and help deliver 138 human eyes for emergency surgery.

It soon became evident that one roll call per day at 7:00 A.M., C.S.T. on 3970 kilohertz left something to be desired. On March 16, 1963, another roll call was arranged on 7205 kilohertz at 8:00 A.M., C.S.T., for those who could still be present. Still another roll call was established in the evening at 7:00 P.M., C.S.T., each night on 3963 kilohertz for national coverage.

By June 20, 1964, the Net had expanded eastward, westward, and to the south to swell the roster to 90 "hams" in 55 cities in 32 states, and on December 20, 1964 (the second anniverary), the roll call included 112 "hams" in 60 cities in 31 states to handle information concerning 447 eyes to make the two-year total 585. The roll call was now being made at 6:00 A.M., C.S.T., on 3970 kilohertz for the eastern "hams." Another roll call was being made at 9:00 P.M., P.S.T. on the West Coast.

During the third year of operation the Net was calling 150 amateurs in 65 cities in 35 states, and practically complete coverage of the nation was being made ranging from New York City, Miami, Fla., New Orleans, La., San Diego, Calif., Seattle, Wash., Fairbanks, Alaska, Billings, Mont., Fargo, N.D., to Buffalo, N.Y. to mention a few of the border cities. The heart of the nation was being covered just as effectively, if not more so.

The 1000th eye was arranged for by the Net on October 7, 1965 and was sent from New York City to Birmingham, Ala., to save the sight of a 22 year old woman who had only one eye when the emergency arose. Five hundred and three (503) eyes were handled by the Net during 1965 to make the three year grand total 1,088.

The month of the most activity was for the period December 21, 1964 through January 20, 1965, with 72 eye transactions. The most eyes handled for one 24 hour period was 18, this on June 17, 1965. Net activity was responsible for eyes being sent to Hong Kong, China; for the El Salvador experiments; to the S.S. HOPE; and to two special technique clinics held in New York City.

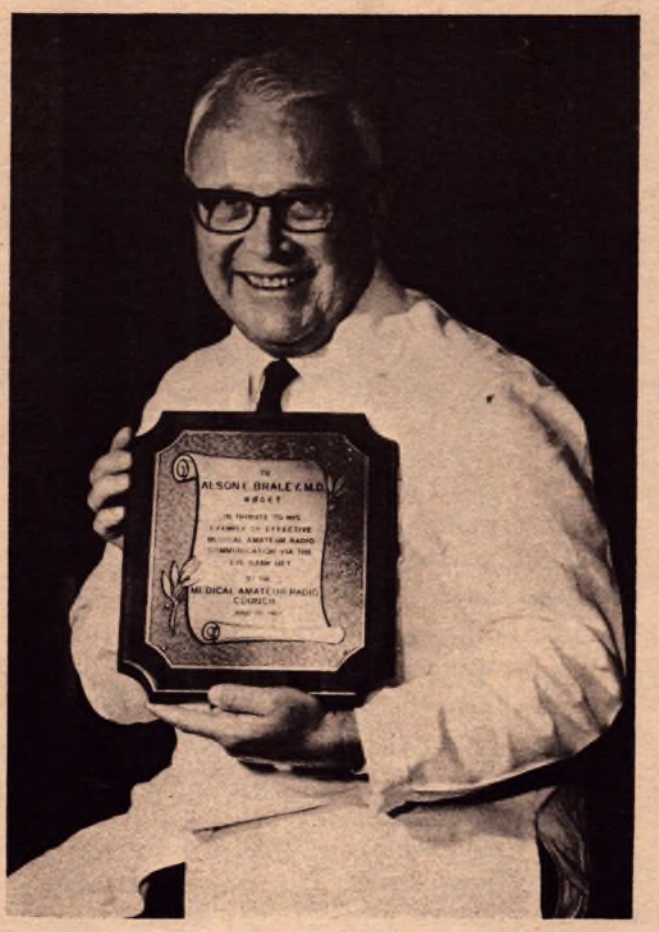
Special mention should be made of Washington, D.C., Baltimore, Md., Schenectady, N.Y., Miami, Fla., Iowa City, Iowa, and Denver, Colo. Hams in these cities have been especially active in using the Net facilities to obtain or furnish eye tissue for emergency eye surgery.

As of May 20, the number of amateurs was 150, number of cities 65, and the states were 35. The grand total of eye transactions as of that date were 1,291. Up to May 1, 1967, there were 1,832. A total of 540 eyes were handled by the Net during the year. By the end of December 20, 1968, the Net had handled 2,875 eyes. The tremendous activity of the Baltimore Eye Bank and the work of Mr. Griffith of the Baltimore Eye Bank made 1968 an amazing year. In that year(1968), Baltimore offered 317 eyes and sent out 300 eyes for other Eye Banks to use. Washington, D.C., offered 48 and Denver offered 30 eyes which were sent to other Eye Banks.

The information regarding 1969 is also very interesting. From December, 1968, through April 20, 1969, there were 294 eyes handled by the Net. That made a total of 3,169 eyes. By November 26, 1971, the Net had assisted in the transfer of 5,430 eyes.

During the past year the Net has handled 3.4 eyes per day for 365 days. The most active cities on the Net include 33 cities each of which has an active participating Eye Bank. There are 105 "hams" who check in regularly. The Little Rock, Arkansas, Eye Bank has become much more active and the Eye Bank in Youngstown, Ohio, has been very much more in evidence.

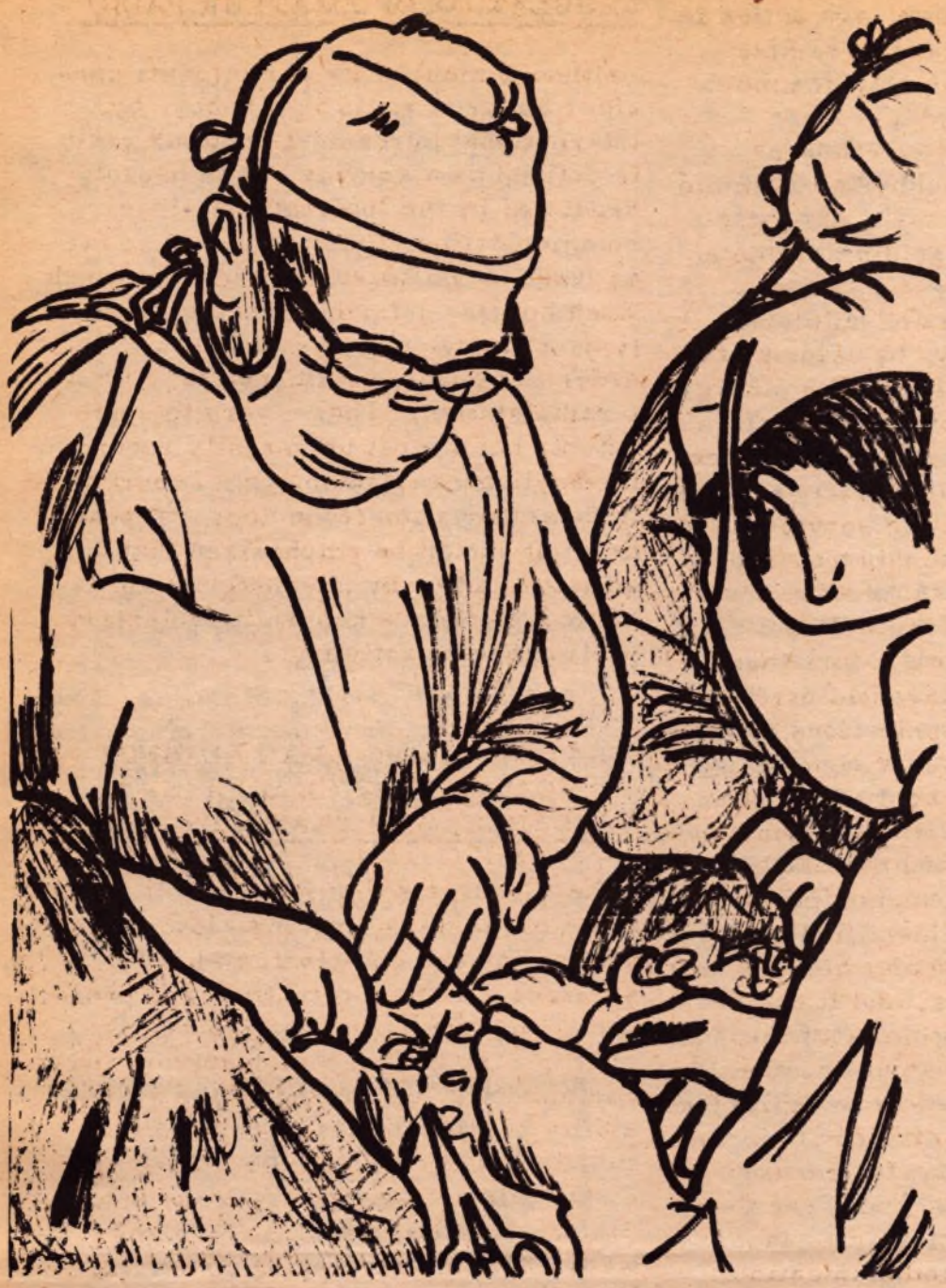
Because of the activities on the Eye Bank Net, I was awarded a plaque in



1967 from the Medical Amateur Radio Council (MARCO) and the Dayton Ham Convention awarded Mr. Walters, (Chubby, W9DOG), the Ham-of-the-year award for the five-state area around Dayton, Ohio. This is a tremendous honor for anyone to receive and one I think that represents the importance of the Eye Bank Net as far as amateur radio is concerned and as far as Eye Banks are concerned.

Leonard Nash, WA5AEY, of El Paso, Texas, has been the Net Control for the 40 meter Eye Bank Net. That net meets every day of the year at 0045 GMT on 7294 kilohertz. Leonard has been untiring in his service to the Eye Bank Net and to the entire program and I think it would be altogether fitting that we give this gentleman his proper recognition.

There are now two 40 meter nets, one meets at 0600 local time on 7290 kHz, the other meets on 7294 kHz at 0045 GMT. The morning net meets Monday through Saturday and the evening net meets 365 days a year. Dick Harris, W5JA, of Dallas, Texas, is Net Manager of the morning net with Dick West, WØMEM, as assistant manager and secretary of the net. Leonard Nash, WA5AEY, El Paso, Texas, in Net Manager and Control Station for the evening net. The 75 meter nets meet on 3970 kHz at 0445 P.S.T. and at 1700 P.S.T.



Amateur radio- potential health care resource

by Paul Zukin, M.D., W6OVW

Dr. Paul Zukin, W6OVW, has been a licensed amateur for 36 years, since age 15. He has been very interested in experimenting and constructing. For many years he practiced internal medicine in Beverly Hills. In 1965 he became involved in economic development programs and health planning in less developed countries. He spent several years in the Middle East countries and Malaysia. In January of 1970 he returned to the U.S. and to the Schools of Public Health and Medicine at UCLA.

The ideas in the article gradually emerged when he was overseas and recognized the opportunities and potential for radio communication to assist in the provision of health care. Since radio amateurs are ever eager to assist it seemed to Dr. Zukin that the communication modalities would be both challenging and intriguing to amateurs. He feels amateurs are a "natural" to participate in the communication activities described below. In addition to his W6 call he also holds SVØWMM and 9M2PZ.

ABSTRACT

Amateur radio has many potential uses as an adjunct to the delivery of health services, particularly in rural or underdeveloped areas of the world. Additionally, there are a number of interesting and innovative ways in which amateur radio communication could assist in research and training related to health science and health service.

Barriers and obstacles exist which could limit implementation of some of the activities or programs proposed. However, these barriers and obstacles are mainly legal and procedural and can be overcome. The important fact is that there already are a large number of amateur radio personnel, worldwide, competently trained, who are willing and anxious to provide services on a cooperative practical basis, and to do so at their own expense. Unfortunately, at present this resource is going begging.

INTRODUCTION

This paper will explore the possible uses of amateur radio as an adjunct to the delivery of health services in underdeveloped or rural areas as well as its use in research and training in health service programs.

Interest in this subject stems from the fact that over the years amateur radio operators have participated increasingly as volunteers, helping in times of emergency or medical crisis. Via amateur radio medical assistance for accident victims has been arranged, and doctors in remote areas have been afforded the opportunity of consulting with specialists in medical centers in other countries often thousands of miles away, frequently obtaining information which has been of life-saving importance.

Recognizing the opportunity for rendering service, amateur radio operators who are health professionals have established radio clubs in a number of health-related organizations, such as university medical centers (for example, Duke University and UCLA), the U.S. Public Health Service in Washington, the National Communicable Disease Center in Atlanta, and many others. The activities of these clubs vary but, in general, have tended to respond to "cries for help." However, some effort has been made particularly by Duke University, to establish a

more organized system of radio-facilitated services, available on a regular basis and primarily geared to aiding physicians in remote areas where traditional health services and information resources are not readily available.[1]

Other examples of organized health-oriented amateur radio activities are the Eye Emergency Net and Medinet. The Eye Emergency Net evolved out of the need to find sources of corneas as soon as possible after death for transplant to recipients. Initially local radio nets were established in individual cities, taking care of only local needs. Gradually these individual societies amalgamated into the Eye Bank Assocation of America, which now has over 62 chapters and includes over 150 amateur radio operators, of whom three are physicians. An average of 6.4 transfers of eye tissue are arranged daily. In the nine years the Net has been in operation, it has facilitated more than 5,000 corneal transplants, and Dr. Alson Braley of Iowa, the group's founder, estimates this to be at least one-third of all corneal transplants carried out in the United States within this time period.

Medinet was established in 1969 by the Public Health Service to assist in expediting communication during health and medical emergencies when regular line communications are not operating. The primary function of Medinet is to facilitate rapid communication between or among health and medical officials at all levels during disasters, and thus to aid in the provision of emergency assistance to disaster areas.

The participants in Medinet are radio amateurs who are employees of either the Veterans Administration or the Department of Health, Education, and Welfare.

Another medically related amateur radio organization is MARCO--the Medical Amateur Radio Council. MARCO's membership is made up primarily of physicians, dentists, and other health professionals who are dedicated to the provision of health services via amateur radio. The Council presently has a membership of approximately 450, including participants from some 30 countries.

HISTORICAL BACKGROUND

Dating back to the early 1900's, amateur radio has long been a popular hobby. It is estimated that there were more than 5,000 amateur communicators in the United States alone at the beginning of the first World War, and their numbers have steadily increased since then. By1970 more than 400,000 amateur radio operators were licensed throughout the world, about 75 percent of these living in the United States or one of its possessions. However, amateur radio operators, or "hams," as they are popularly known, are active in almost all countries, and in remote areas often provide the only communication link to the outside.

Perhaps the prime motivation for those engaged in the hobby has been the opportunity to pursue one's curiosity about a fascinating, rapidly developing science and technology-- by experimenting, by designing and building equipment and, finally, by using that equipment to communicate with others far and near, to establish personal relationships, to exchange information and knowledge and, in a variety of ways, to provide valuable public service. Individuals attracted to amateur radio tend to be well educated (median educational attainment in the United States is 2.5 years of college). More than half the participants have had extensive training in communications science and/or engineering, and a significant additional percentage hold advanced degrees in other disciplines, such as chemistry, physics, and the health sciences.[2] A survey, commenced some five years ago, identified over 2,500 U.S. physicians who were licensed radio amateurs, and it has been estimated this figure represents less than one-fourth of the actual number.[3]

One need only read below to appreciate the importance of amateur contributions to communication technology. Beginning with Marconi, who was the first individual to demonstrate the practicality of radio communication (1896), and DeForest, who developed the vacuum tube in 1906, one can point to a large number of inventions and innovations directly attributable to amateurs. These include basic experimental design and construction of radio receivers, transmitters, antenna radiation systems, etc. Amateurs established the first two-way trans-Atlantic and two-way trans-Pacific radio communication. Even the first radio telescope was constructed by an amateur (Reber, 1936). Over the years amateurs have bounced signals off the moon, have developed, built, and put into orbit a communication satellite, and have pioneered techniques which have increased the efficiency of radio communication, permitting a greater utilization of the limited, overcrowded radio frequency spectra.

While contributing to the state of the art generally, physicians and other biomedical scientist radio amateurs have created, developed and innovated devices and techniques which have found application in patient monitoring and treatment(e.g., cardioscopes, pacemakers, etc.,), in the transmission of patient biomedical data (e.g., electrocardiograms by telemetry, radiographs by slow scan television, etc.,), and have participated in patient care by consultations or the giving of advice via radio.

REGULATION OF AMATEUR RADIO

Although most of its participants consider amateur radio as a hobby, by international agreement amateur radio is defined as a service and is broadly regulated by the International Telecommunications Union, at least so far as frequency allocations are concerned. Each country determines the qualifications an individual must possess in order to be issued a license to operate a radio station. These vary to some extent, but almost universally require the applicant to demonstrate expertise in communication technology and practice. It should be emphasized that amateur radio, by international agreement, exists as a nonprofit, voluntary public service activity.

AMATEUR RADIO AS AN ADJUNCT TO HEALTH SERVICE DELIVERY, RESEARCH, AND TRAINING

The discussion that follows will detail some of the ways amateur radio communication can contribute to health services. The opportunities and prospects for such a contribution will of course vary in different countries and communities, depending on the availability of other forms of communication as well as the numbers, kind and distribution of health resources (manpower, facilities, etc.,). In many ways, new and developing countries have the most to gain. However, relatively remote rural areas of developed countries, including the United States, may also benefit, Indeed, those who function primarily as providers of service (through consultations, biomedical data interpretation, etc.,) in most relationships may be consumer in other circumstances (e.g., as in receiving field data for use in teaching). Hence the information exchange is in reality a two-way street.

SERVICE

The kinds of health service that can be enhanced by radio communication between a medical center and a remote or medically underdeveloped region include at least the following:

1. Consultation--either patient oriented or health system oriented.

a. Patient oriented

(1) Assistance with clinical evaluation and treatment of individual patients.

(2) Interpretation of biomedical graphic and other data transmitted by radio --e.g., electrocardiograms, X-rays, etc.

b. Health system oriented

(1) Delivery system problems

(2) General administrative and managment problems

(3) Special health problems, including epidemics, sanitation, etc.

(4) Program planning

(5) Transmission of health program data by radio teletype or telemetry for computer or other processing.

2. Coordination of services

a. Matching resource providers with resource users. The Eye Emergency Net is an example of this type of service. "Cries for help," for drugs, equipment, transportation, etc., are also examples.

b. Special programs--e.g., collaborative programs between medical centers in developed countries and similar organizations or health service facilities in underdeveloped countries, or less well developed regions of developed countries.

c. Liaison of hospital and treatment centers with outposts in jungles and other remote areas. An entire aborigine medical service has been set up in West Malaysia, based primarily on a radio communications network organized by a U.S. Peace Corps member who was an amateur radio operator. The radio equipment consists of small transceivers powered by bicycle-driven generators. Aborigines have been taught to work the equipment and to call for help when the need arises.

TRAINING

1. For teaching medical centers in developed countries, there is a unique opportunity to present individuals or classes a wide range of real health problems found in remote or underdeveloped areas. For example, a group involved in health program planning could be supplied actual field data as it is encountered and obtained. The class could analyze the data in order to delineate the health situation of the region under study and to establish priorities and objectives for dealing with health problems. Possible solutions to the health problems could be elaborated by the class and fed back to the group in the field for evaluation as to feasibility and usefulness.

As programs were implemented, the class could become involved in the day-by-day activities, the difficulties encountered, how these were handled, etc., thereby vicariously participating in an actual ongoing health program.

2. For those in the field or in teaching centers of less developed countries, the continued relationship with a health science center of a developed country would have great value and would afford the opportunity to confer about subjects of mutual interest, to secure professional advice regarding problems, etc.

Not to be underestimated is the potential value of an educational program within a developing country in which, by means of point-to-point radio communication, health professionals in remote areas can be kept up to date on medical advances and changing health practices. This is important, not only from the standpoint of the maintenance of effectively trained personnel, but also as a means of maintaining morale among those who might otherwise be out of touch with medical progress, and who often have the feeling of being "forgotten men".

RESEARCH

The ways in which radio communication might serve as an adjunct to research in various aspects of health service programs or in health problems seem unlimited. Some of the obvious uses are as follows:

1. A study of the range and kinds of health services and teaching that can be enhanced through the use of radio communication.

2. International collaborative studies on health problems and/or health delivery systems.

3. Evaluative research concerning outcomes of health service programs delineating critical factors involved, etc.

OBSTACLES OR BARRIERS TO THE USE OF AMATEUR RADIO IN AUGMENTING HEALTH SERVICES

Many reasons have already been cited substantiating the potential value of amateur radio as a support for health service systems. In addition, it has been established that amateur radio encourages a country's sociological and technological advancement in many ways and has proved to be a positive force in fostering international goodwill.[4] None the less, there do exist some obstacles or barriers that might limit or prohibit the kinds of communication activities which have been proposed. These are as follows:

1. Technological-- in order to carry out the various functions outlined, special equipment and technically competent individuals are required at both ends of the circuit. Also, equipment must be maintained. Spare parts may not be readily available in remote areas. However, radio amateurs are resourceful individuals and these problems usually can be overcome, even in remote jungle areas.

2. Financial-- although simple radio communication gear is relatively inexpensive, highly specialized equipment is more costly. However, capability to carry out all the services and functions envisioned from a base station can be obtained using commercial equipment at a cost ranging from $3,500 to $6,000 in the United States. Equipment can also be purchased in kit form at considerable savings or built from scratch at still less cost.

3. Political--each country has its own rules and regulations concerning requirements for licensing amateur radio operators. Although reciprocal licensing agreements among nations do exist, such agreements are not universal. Consequently, a national from one country may not necessarily be permitted to operate a radio station in another country.

Another practical political consideration relates to the problem of division of control and authority in those collaborative programs involving personnel from several countries. One of the problems that faces universities and other organizations with teams abroad is that of poor communication with the parent institution at home. A radio communication link could be an invaluable asset in these circumstances, but may be resented and actually resisted by those in the host nation who feel that their control over the project may be reduced. Clearly, these matters require frank discussion and resolution.

4. Legal

a. Licensing-already discussed

b. "Third party restrictions"--this refers to the restrictions that prohibit individuals other than the licensed operators of the stations in contact from communicating via amateur radio, unless the countries involved have specific treaty agreements that permit "third parties" to communicate via amateur radio. Strictly interpreted, this prohibition also applies to the communicating about third parties and would potentially prohibit the biomedical data of a third party, such as a patient. Third party agreements basically entail relationships having to do with the financial aspects of international telecommunications, including telephone communication. While these restrictions could interfere with a medical amateur service, it is very possible that special agreements could be worked out, recognizing the nonprofit and humanitarian aspects of the character of the communication service.

c. In recent months, the Federal Communications Commission has questioned the legality of such activities as the Eye Emergency Net under existing U.S. amateur radio regulations. Quoting its Section 97.39, the F.C.C. states that an amateur station license may not be issued to nor for the use of an organization except a bona fide amateur radio organization. It further notes that the rule applies to any amateur radio station transmitting a message on behalf of a non-amateur organization regardless of whether the particular station originated the message or is relaying the message from another amateur station.[5]

Taken literally, this interpretation of the rules makes the Eye Emergency Net operation illegal and so would be the proposed activities which have been described. However, the present ruling is currently being reconsidered. In the event that satisfactory resolution is not achieved, there remains an alternative--the establishment of a special radio service utilizing amateur radio operators which would be exclusively devoted to assisting the health services designated.

5. Time differential--the time differential between various parts of the world, coupled with varying radio propagation characteristics, would occasionally interfere with reliable radio communication under certain circumstances.

Discussion and Summary

The "message" of this paper is that in rural and underdeveloped areas of the world, as well as for certain kinds of medical problems in developed areas, health care can be materially enhanced in a variety of ways by the use of modern radio communication techniques.

Because of the barriers and obstacles discussed, it is likely that the present amateur radio service cannot be used to provide the range of services envisioned. However there is precedent for the establishment of special radio services for particular needs--e.g., police, fire, and other similar functions. The Military Affiliate Radio Service of the United States is another special radio service which serves a special function, and one which makes substantial use of amateur radio operators. Hence, while the amateur service may not be used per se to augment health care, there is no reason that a new radio service, e.g., a "Medical Assistance Radio Service," could not be established, allocated frequencies close to existing amateur bands, and authorized the use of amateur radio manpower and equipment.

Recently, preliminary discussions were held at the Federal Communications Commission in Washington and at the International Telecommunications Union in Geneva. Officials of both organizations felt that the development of a special radio service to assist health care was practical and worthy of serious consideration. Satellite communication has increased enormously in recent years, and many radio services previously making use of frequencies near those employed by the amateur radio service have moved to satellite communication frequencies. This has freed their old frequency slots, and these are now potentially available for reassignment to new radio services.

The Medical Amateur Radio Council and other amateur radio organizations will continue to develop ways and means of augmenting health services with communication techniques. It is probable that the establishment of a new radio service, as described, will be requested. It is important that organized medicine be aware of the contribution amateur radio could make to health care. It is also important that organized medicine support this effort in many ways: first, by officially recognizing the work and the programs of the Medical Amateur Radio Council; second, by officially backing the establishment of a new radio service, or the modification of existing radio services as required; third, by making the public aware of the potential contributions which can be made by the programs discussed.

Health care is now a prime national and international concern. To fail to make use of resources which are conveniently at hand and available at very little cost is wasteful, if indeed not negligent, particularly when such resources offer new and innovative ways to relieve human suffering and to meet basic human needs.

References

1. Duke University Medical Center. Project MED-AID, Durham, N.C.
2. Stanford Research Institute, Amateur Radio: An International Resource for Technological, Economic, and Sociological Development, Menlo Park, California, 1966
3. Sprague, William L., Secretary, MARCO. Personal Communication, 1971.
4. Stanford Research Institute, loc.cit.
5. QST. Editorial, "It Seems We Have Problems," Vol. LVI, No. 10:9, 1970

MARCO-IMRA save a young life

Through the cooperation of IMRA and MARCO (Medical Amateur Radio Council), many amateurs being members of both organizations, another life was saved and medical information was gained.

On September 3, 1971, Carlos Aurelios, HC1CV, requested medication for a leukemia patient being treated by Dr. Claudio Canzares in Quito, Ecuador. Brother Bernard Frey, WA1FKE, and Dr. John Schindler, W4RFA, worked on the procurement of the medication with Sol Katz, WB4EZZ. The medication was transported to Quito through the courtesy of Ecuadorian Airlines and the expenses were defrayed by the Radio Club of Quito.

Medical personnel were particularly interested in this treatment for the leukemia victim because it is a little out of the ordinary and all were interested to see how the young man would respond to the Cytosar and Thioguanina. We are happy to report that from the hopeless condition in September we now have a young man back at work in December.

Other stations cooperating in this operation (with a minimum of fanfare and excitement) were: Frank Savat, WA5YOI; Warren Mulhall, WA2BPV; Sister Mary, WA5VBM; Enrique Gangotena, HC1GE, and Juan Moscoso, HC1JJ.
(de Sister Mary, WA5VBM)

Rev. Daniel Linehan, W1HWK

by Christine Haycock, M.D., WB2YBA

At ten years of age, Rev. Linehan, with the assistance of two local "hams", built his first radio equipment. This was achieved with the use of such items as Quaker Oats cartons, the spark coil from a Model T Ford, and the outlay of $18.50 by his father. He had ambitious plans to build more sophisticated items, but World War I took all amateur radio operators off the air. After the war his time was spent in college and in the seminary, and it was impossible for him to continue his interest in radio.

During this period he was teaching physics including courses on the Electromagnetic Wave Theory and the Fundamentals of Communication. It was not until the early fifties that he finally obtained his present amateur radio license and call letters.

His most interesting activities in radio occured when he operated stations from both polar regions in the same year. In 1954 he was the geophysist on an expedition to the Arctic where studies were being made to relocate the magnetic North Pole. In December of that year he went to Antartica on a Navy expedition. In both areas he operated the radio station. In 1957 and 1958 he took his own equipment to Marble Point in Antartica and operated as KC4USC.

Throughout the years he has handled traffic for our men overseas, and whenever possible he gets on the Hurricane Net and relays messages and emergency traffic.

Among the many awards he has received are the U.S. Navy Distinguished Service Award in 1958, The Golden Plate Award in 1962, The Department of Defense "Antartica Medal" in 1965, the Boston Medal for Distinguished Acheivement in 1967, and the DeForest Audion Award and Medal in 1970. This latter award pleases him the most because it was presented to him by the Veteran Wireless Operators of America as a result of his contributions to Geophysics and Electronics.

Being a member of the clergy, his main interest now lies in the International Mission Radio Association which was initially founded as a way for members of the clergy throughout the world to communicate. It soon became obvious that other "hams" wanted to assist their efforts to aid missionaries in procuring equipment and supplies, so membership was then opened to anyone who wanted to help. The organization has grown steadily in size and activity since its founding in 1963. At the present time the MARCO net follows IMRA on the air, and many of its activities dealing with missionary doctors overlap and complement each other.

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The International Mission Radio Association needs regular checkins in those areas. If interested contact: Sister Mary, WA5VBM.

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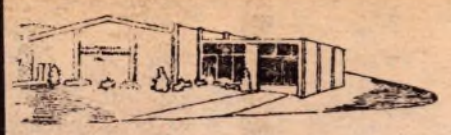

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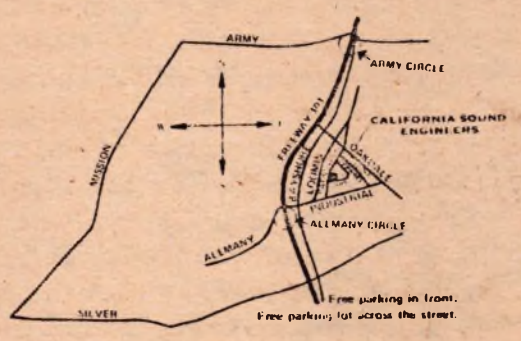

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NAME OF NET	FREQ.	DAYS	GMT	MIN	PURPOSE	COVERAGE
AMATEUR RADIO MISSIONARY SERVICE (ARMS)	3907	MWF	1200*	45	T	EASTERN US
CENTRAL GULF COAST HURRICANE NET (CGCHN)	3935	DY	0100	30	T	USA
CHRISTIAN AR FELLOWSHIP E SECTION	3905	M-S	1200		TO	1 2 3 4 5 8 9 Ø
CHRISTIAN AR FELLOWSHIP INTERNATIONAL SEC	21405	DY	1800	60	TO	WORLDWIDE
COAST GUARD NET	14337	M-F	1700*	60	T	USA
CONFUSION NET	21400	DY	0200	90	T	ALL PACIFIC & US
EARLY BIRD TRANSCONTINENTAL NET (EBTCN)	3940	DY	1000	90	TW	USA
EAST COAST AMATEUR RADIO SERVICE (ECARS)	7255	DY	1200*-0330*		ET	EASTERN US
EYE BANK NET	3970	DY	1200*-0100*	20	O	56 EYEBANKS IN 35 STATES
40 METER EYE BANK NET	7294	M-S DY	1245* 0045*	45	E	USA
HALO MISSIONARY NET	21390	M-S	1900*	60	T	WORLD WIDE
INTERNATIONAL HANDICAPPERS NET	14287	M-F	1500*	120	O	WORLD WIDE
INTERNATIONAL MISSION RADIO ASSN. (IMRA)	14280	M-F T-S M-F	1900* 0100 1600-0300	60 60	ET	INTERNATIONAL (MONITOR 1st 15 MINUTES OF EACH HOUR)
INTERSTATE 75 METER SSB NET (75ISSB)	3985	DY	0100	90	T	CENTRAL & EASTERN US
MEDICAL AMATEUR RADIO COUNCIL (MARCO)	14280	DY	0200*	60	O	INTERNATIONAL
MARITIME MOBILE SERVICE NET	14313	DY	2130*	90	T	WORLD WIDE
NET FOR THE BLIND	14305	DY	1800		TO	WORLD WIDE
CENTRAL & SOUTH AMERICAN NET	7040	DY	0200-1230			
CANAL ZONE NET	21330	M-F	1600	120		
MIDWEST AMATEUR RADIO SERVICE (MWARS)	7258	DY	1300*-0430*		ET	MIDWEST US
NATIONAL POST OFFICE NET (PON)	3597 7097 14060	T-S	0230 0200 0030	30	ET	NATIONAL
NORTH AMERICAN SSB TRAFFIC NET	14285	M-S	1400		ET	NORTH AMERICA
NORTH AND WEST EYE BANK NET	3960	DY	0500*	20	O	WASH., CALIF., UTAH ORE., BC, ALASKA, W.IDA., W.ALTA.
PACIFIC AREA NET (PAN) (ALT. FREQ. 7135)	3675	DY	0430		A	PACIFIC AREA
PACIFIC INTERISLAND NET	14330	MWF	0830		T	PACIFIC ISLANDS
20 METER INTERSTATE SSB NET	14278	M-F	1500	180	T	USA
WEST COAST AMATEUR RADIO SERVICE (WCARS) (MONITORED 24 HOURS)	7255	DY	DAYLIGHT HOURS		ETO	WESTERN US, MEXICO CANADA

nets

nets

NETS

nets

more nets listed in next issue

nets

NETS

CODE:

DY-DAILY, E-EMERGENCY, T-TRAFFIC HANDLING, L-NTS, A-NTS AREA, O-OTHER, W-WEATHER. AN ASTERISK (*) INDICATES THAT THE NET MEETS ONE HOUR EARLIER PER GMT DURING PERIODS OF LOCAL DAYLIGHT SAVING TIME.

Julius Van Dongen, WA6FOX, (ex-PAØ) asked for a list of nets. Thanks to IMRA, we were able to comply.

MARN
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 an amateur radio operator's license. There are no dues and the nominal membership fee is perpetual. Write for information.

MARN
11049 Avenue E
Chicago, Illinois 60617
U.S.A.

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The *Worldradio* Foundation

ten percent of your subscription fee is divided among:

Airmen's Memorial School

Located on the island of New Britain, off the coast of New Guinea, the school was the first education for the children of Ewasse Village. It is a non-profit foundation project of Fred Hargesheimer, WØEBG, of White Bear Lake, Minnesota. The area's natives nursed Fred through illnesses and protected him for eight months during 1943 after his P-38 crashed. Fred, an electrical engineer, is currently on a one year leave of absence from UNIVAC and is teaching math at the school. He is operating as VK9FH.

S.S. HOPE

Amateur radio has always been a part of the journeys of the HOPE as she covered the world treating the ill and serving as a teaching hospital. The HOPE also maintains permanent medical facilities in Peru, Ecuador, Nicaragua, Colombia, Ceylon, and Tunisia.

Amigos de las Americas

Working in Guatamala, Honduras, Nicaragua and Colombia, the nondenominational group administers immunizations, teaches hygiene and reading and helps in many ways. The volunteers go down for three week tours, paying a large share of their own expenses. Many amateurs are involved in the project.

International Mission Radio Association

The organization furnishes communication for those in remote areas of the world such as missionaries and Peace Corps workers. Funds are used to purchase radio equipment for missionaries of all faiths.

Colegas y Amigos

The Southern California and Mexico Amateur Radio Mobile Group has as its primary aim the promotion of international good will. They assist an Old Folk's Home and a Girl's Orphanage in Ensenada, Mexico. The group also works with the Flying Samaritans - the pilot-doctors who fly into remote areas of Mexico to give medical assistance.

Handi - Hams

A group in the Midwest (WØ) who teach the blind, handicapped and bedridden persons to become amateurs. The organization also, through donations, gives radio equipment to the handicapped.

Radio Amateur Invalid and Bedfast Club

The club, based in London, helps blind and disabled amateurs in Britain, Australia, New Zealand, Canada, South Africa, Finland and the U.S.A. Equipment is repaired, antennas are erected for the disabled, and amateur radio literature is distributed to the handicapped.

Minh - Quy Hospital

Located at Kontum in the central highlands of Viet Nam, the hospital is staffed by an American woman doctor from Seattle, Dr. Pat Smith, and two nurses. The facility, which attends to the illnesses and injuries suffered by civilians, also receives help from a Swiss medical team. Assisting the hospital is a continuing project of Sgt. Steve Olson, W6EQM, who was stationed near the hospital with the Special Forces. He is now in Fresno, California.

Hadley School for the Blind

The school, located in Winnetka, Illinois, operates an amateur radio correspondence course, given without charge to the blind. The course has over 150 blind students (and a waiting list). Students are located in the United States, Australia, New Zealand, India, Hong Kong, Scotland and other countries. Volunteer chairman of the program is Byron Sharpe, W9BE.

Reserve

A reserve to be used for emergencies, grants, purchase of equipment to be loaned to hams engaged in humanitarian projects and to implement suggestions from readers of Worldradio.

All expenses and clerical time necessary to operate the Foundation will be donated by the publication and its staff. On a quarterly basis, a record of disbursments will be reported in Worldradio.

"I believe in the family of mankind"... Mark Twain

participants *Worldradio subscribers*

This listing is provided to facilitate your acquaintance with those of similar interests.

(Continued from last issue)

Gay Milius, Jr., W4NJF, Virginia Beach, Virginia
H. Dale Strieter, W4DQS, Cocoa Beach, Florida
Art & Madeline Greenberg, W2LH-W2EEO, New York, NY
Herb Johnson, W6QKI, Encinitas, California
Hal Moore, W6DEF, Redwood City, California
Thomas Chisnell, WA6SPL, Spring Valley, California
Harold Whyte, VK2AHA, Newcastle, NSW, AUSTRALIA
Sidney Lagorio, WA6JGZ, Kensington, California
Paul Schuett, WA6CPP, Lodi, California
Robert Nicholson, W6DXK, La Habra, California
Rev. J. Carroll Ruoff, VP1CP, Belize City, BRITISH HONDURAS
Mike Head, WA5TWM, Oklahoma City, Oklahoma
Albert Abaffy, W6YF, Sacramento, California
Forrest Nelson, HC8FN, Galapagos, ECUADOR
Harry Gartsman, W6ATC, Beverly Hills, California
Robert Bellows, KG6AQB, Apra Heights, Guam
Joe Roney, SWL, Van Nuys, California
Victor Self, WA9YLE, Champaign, Illinois
Patricia Markos, K3YBR, Pittsburgh, Pennsylvania
Jack Decker, K8KPW, Muskegon, Michigan
Alfred Woolf, WB6SFP, San Francisco, California
Stanley Zimmer, WB4JRY, Largo, Florida
Bill Beuning, WAØIIB, St. Cloud, Minnesota
Al Priestly, WA6NHD, San Jose, California
Richard Schisler, Jr., WB2RUM, Clifton, New Jersey
H.C. Welsh, W6KQB, Sacramento, California
Dr. John Schindler, W4RFA, Miami, Florida
Harry Grace, WB6RZI, Sonora, California
Lacey Ann Gude, -, Washington, D.C.
Al Maston, W6JYQ, Sacramento, California
Harry Verburg, WA6UBP, Santa Ana, California
Dr. Corrie Lovercheck, WA7LOW, Jackson, Wyoming
Elizabeth Kuegeman, K7UXN, Eastsound, Washington
Miles Saibic, WA9JIH, Stickney, Illinois
Rosemary Davidson, WA8VXE, Battle Creek, Michigan
Alan Bloom, WA3JSU, Middletown, Connecticut
Pat Philippi, WN9DAA, Downers Grove, Illinois
Paul Wilson, W4HHK, Collierville, Tennessee
Charles Armiger, WA3FTH, Baltimore, Maryland
Eugene Darlington, W6TTS, Albany, California
Lloyd Locke, K1COS, Reading, Massachusetts
William Vandiveer, K2DW, Port Washington, New York
Ray Hauck, K6QPE, Sanger, California
Gerald Starkey, WA6LIJ, Mountain View, California
Richard Carbine, WB6UDS, San Rafael, California
Craig Upson, WA5YGH, Albuquerque, New Mexico
William Canterbury, W9UIJ, Rockford, Illinois
Ivan Aldrich, WA5WQT, Florence, Mississippi
Arthur Shorey, K3ZRY, Dover, Delaware
Roger Cole, W3DXK, New Castle, Delaware
John Adams, W6UBJ, Santa Ana, California
Earl Stranberg, WA6JYY, North Edwards, California
J. Gilbert Smith, W4AMC, Robersonville, North Carolina
Carl Adler, W6RHD, Forest Knolls, California
George Hinds, WB8JYR, Westlake, Ohio
Donald Goodman, WA2FLA, Niagra Falls, New York
Ed Hayes, W7SA, Tucson, Arizona
Steven Mann, WN4VPD, Burlington, North Carolina
Lou Seeberger, WA6HQT, Tarzana, California
J.C. Ellison, K6MVF, San Diego, California

(Continued next issue)

1st Alien Operator Licensed

Effective Oct. 26, Hartwin Weiss, a licensed amateur radio operator with the highest privileges in his native Germany, became WA3KWD in the United States, under new legislation covering aliens.

Prior to Public Law 92-81, introduced by amateur radio operator Barry Goldwater and signed into law by President Nixon Aug. 10, Mr. Weiss was ineligible for a United States license, since he was not a U.S. citizen.

Provisions were made for foreign visitors, but Mr. Weiss, a full-time student at the University, part-time engineer at HRB-Singer and a resident of Millersburg, had renounced his German citizenship and declared his intention to become a U.S. citizen. No provisions existed for immigrants, until the new bill was secured.

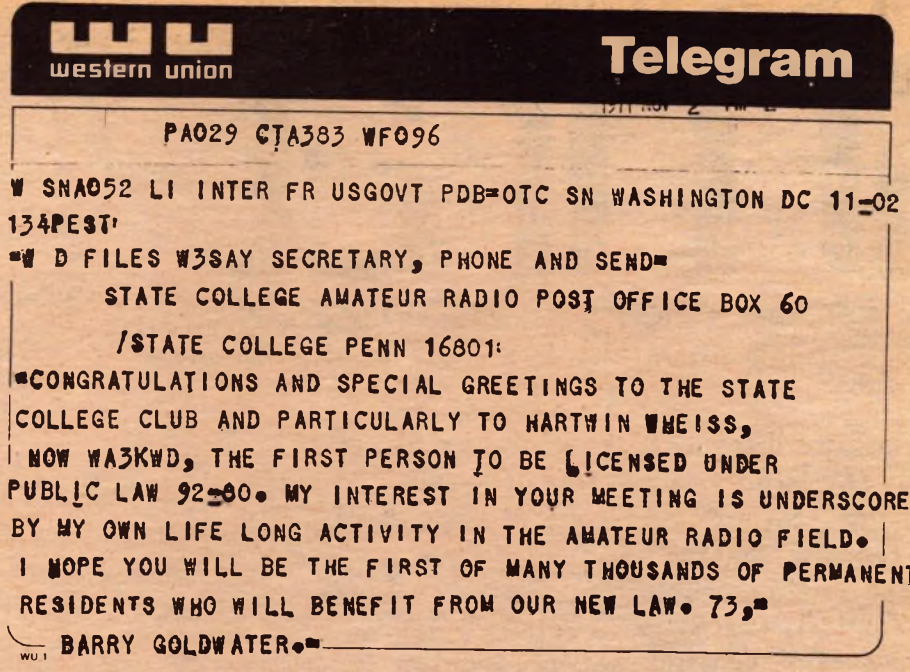
Mr. Weiss, a member of the Nittany Amateur Radio, State College, became, with the club's assistance, the first alien to obtain a U.S. amateur radio license by FCC examination. His license in Germany was equivalent to the "extra class" license in the United States, and he qualified for "extra" in the FCC examinations.

A telegram of congratulations was received by the State College club and Mr. Weiss, from Sen. Barry Goldwater.

Under the new law also, a novice class license has been issued to a permanent U.S. resident from Great Britain.

(From the Centre Daily Times, State College, PA. Dec. 16, 1971)

Hartwin Weiss- WA3KWD ex DJ4UG



western union **Telegram**

PA029 CTA383 WF096

W SNA052 LI INTER FR USGOVT PDB=OTC SN WASHINGTON DC 11-02 134PEST

=W D FILES W3SAY SECRETARY, PHONE AND SEND=
STATE COLLEGE AMATEUR RADIO POST OFFICE BOX 60
/STATE COLLEGE PENN 16801:
=CONGRATULATIONS AND SPECIAL GREETINGS TO THE STATE COLLEGE CLUB AND PARTICULARLY TO HARTWIN WEISS, NOW WA3KWD, THE FIRST PERSON TO BE LICENSED UNDER PUBLIC LAW 92-80. MY INTEREST IN YOUR MEETING IS UNDERSCORED BY MY OWN LIFE LONG ACTIVITY IN THE AMATEUR RADIO FIELD. I HOPE YOU WILL BE THE FIRST OF MANY THOUSANDS OF PERMANENT RESIDENTS WHO WILL BENEFIT FROM OUR NEW LAW. 73,=
WU1 BARRY GOLDWATER.=

The telegram tells the story. On August 10, 1971, President Nixon signed Public Law 92-81 to make certain aliens eligble to receive FCC issued licenses for the operation of amateur radio stations.

Senator Barry Goldwater, K7UGA, had introduced the legislation to enable aliens who were permanent residents of the U.S. and who had filed a Declaration of Intention to become U.S. citizens to take the FCC examinations and become licensed amateur radio operators.

They were formerly disqualified on the basis of citizenship and because of their permanent residence in this country, they could not operate under the reciprocal provisions of the Communications Act.

Hardy took his FCC examinations for General, Advanced and Extra Class licenses in Philadelphia in mid-September. His DJ4UG license was equivalent to our Extra Class license, thus he qualified for Extra here in the U.S.

The new WA3KWD lives with his wife at Millersburg, Pa. but spends Monday through Friday in State College where he is a student at Penn State and a part-time engineer at HRB-Singer, Inc.

He is a member of Eta Kappa Nu, the engineering honorary society, IEEE, ARRL, PSARC and a full member of the Nittany Amateur Radio Club.

The above news from the Nittany club paper was sent to Worldradio by Mary Neilly, Mrs. W3LNW.

FOREIGN LANGUAGE QSOs Communicate

LEARN SPANISH ON THE AMATEUR BANDS THROUGH QSOs EN ESPANOL

AUDIO LINGUAL TAPES AND CASETTES GIVE THE RIGHT DIALOG FOR AMATEUR RADIO CONTACTS IN FOREIGN LANGUAGES. NEW SIMPLE COURSES AVAILABLE EXCLUSIVLY THROUGH FOREIGN LANGUAGE QSOs

The amateur bands provide an interesting language laboratory for stimulating, progressive experience in oral communication in foreign languages. It is easy to learn greetings and how to exchange signal reports. This regular practice in listening and speaking enables one to advance from passable communication to lengthy pleasant chats. The manuals and tapes give you the proper technical phrases to enter this game.

The goal of international friendship and good will through amateur radio is best reached by understanding the language of other countries. Your use of his language tells him immediately that you have more than a superficial interest in his culture. With conversational use of a foreign language, travel is much more interesting, too.

FOREIGN LANGUAGE QSOs have complete audio-lingual courses now available in Spanish, German and Japanese. We also have English tapes for native Spanish speakers. Manuals give complete translations for QSOs, special radio jargon and radio terms. Running times for the Spanish and Japanese tapes-1 hour and 20 minutes. The German tape runs for 1 hour and 30 minutes.

English-Spanish Course, QSOs EN ESPANOL, on 7 inch tape $11.95, C 90 Cassette $10.95, 5 inch tape-$11.95, Manual only-$2.50.

Japanese course is the same price as the Spanish course.

English-German Course, QSOs AUF DEUTSCH, on 7 inch tape &13.95, C 90 cassette $12.95, on 5 inch tape $11.95, Manual only-$2.50.

The tapes are prepared by native hams who know the right phrases actually used by foreign hams.

Orders mailed PPD 3rd Class in USA. Send checks to:

FOREIGN LANGUAGE QSOs, W1YLV
Box 53, Acton, Mass. 01720

Carl Sletten, W1YLV

People Helping People

imra

Sister Mary, WA5VBM

14.280 MHz

(continued from page 4)

Awards Committe was overwhelmed by the hundreds of letters received from grateful persons and organizations in Central and South America and in this country praising Sylvester Connolly for the marvelous work he has been doing these many years. A plaque and cash award were presented to Syl at the American Radio Relay League's National Convention held in Boston last year.

The station at W1MD is busy day after day with countless phone-patches into the Boston area. He has helped many religious organizations of all faiths in contacting their missionaries in the jungles of South America.

Born in Boston, of Irish extraction, Syl has been a ham for more than 50 years. First licensed as just plain "1MD", he has used many modes of operation-Spark, Modulated ICW, CW, AM, and SSB. In the early days before any broadcast stations existed, Syl worked 200 meters. (How many hams can make that statement?) He was chief operator for four years at the Boston College radio stations, "1PR" and 1XK" and he was code instructor with the University Extension Division of the Commonwealth of Massachusetts, holding a certificate for 35 wpm.

Syl has been married to his XYL, Alice, for 42 years and they have two daughters and eight grandchildren. No junior operators and no junior, jr. operators, yet. but Syl did get some help from one of his daughters in his ham work. (Syl fell heir to a tower on top of a seven story building in Boston and his daughter helped him carry it...section by section...down the seven flights of stairs!)

In 1936, Syl moved to Hingham, Massachusetts, a suburb of Boston, where he began re-accumulating his station. The main items in the shack are his KWM-2, 30L1, and a well used phone-patch. His antenna is a TA-33 activated by a Ham-M rotor and a homebrew selsyn beam indicator. The antenna is on a 50 ft. Rohn tower which was mentioned above. He has a unique system of cables and pulleys running into his garage and he raises the tower by attaching a cable to the rear bumper of his car and then driving out of the garage.

In 1969, Syl retired from his job at the Jordan Marsh Co. (a furniture dealer) after 42 years of service. This gave him a free hand for hamming?? He also enrolled in a 10 week Spanish course being offered at a local high school. He has taken the same course three times. This fluency in Spanish has greatly enhanced his ability in handling traffic from Central and South America.

Sylvester Connolly first became associated with the International Mission Radio Association (IMRA) back when it was still called the Catholic Mission Radio Association (CMRA) and membership was restricted to the clergy. The late Monsignor Walter Furlong, W1JS, protested this restriction in regard to Syl... W1MD was handling more missionary traffic than any of the bona fide members.

The protest was recognized as valid and Sylvester became one of the first non-clerical members of the CMRA.

You might call that breaking the collar barrier.

Our hats off and our heartiest congratulations to Sylvester Connolly, W1MD. He truly deserves the title "Ham of the Year." Look for him on the 1900 GMT session of the IMRA.

-

GET ACQUAINTED QSO PARTY

DATE: February 21, 1972. TIME: 1500 GMT until bands go out or voices give out. PLACE: 14.280 MHz, 7.280 MHz, 3.950 MHz. PURPOSE: to get to know IMRA members better. This will give members who never get to talk to each other because of skip conditions, a chance to get acquainted. This was one of the ideas which came out of the Convention in Canton, Ohio. Brother Robert Kreutzer, W8GYR, is the QSO Party Manager.

-

BROTHER BERNARD, OFM Cap.
(Order of Fliers Minor capuchin)

Brother Bernard Frey, WA1FKE, had very narrow escape from death while installing his tower at his new QTH in Providence, R.I. In his own words, let's hear his story:

"I'm slowly getting back on my feet. I'm using crutches to help me get around. The X-rays showed that I had nothing broken, but you should see my two black eyes...and the bruises. I'm black and blue. The badly torn up left leg keeps reminding me that I had a bad fall. Here is how it happened:

" The building I was on was a three story structure that used to be a hospital, so the ceilings are higher than normal adding almost another story to the building. The Brother who had been helping me all morning had to go to school, so I decided to do a few unimportant things with the tower guy cables...like change them from the rotor to the tower and add a fourth one, etc. The tower is the 11 ft. one that I had on the hotel in Springfield. I was secured with a good safety belt and the tower base was made of two 6" by 6", ten feet long with a plywood top and sides.

"It seemed plenty heavy enough to keep the tower up with anyone on it. I had just secured one guy permanently to the corner of the building and clipped another one off...this was my big mistake, for moments later the tower began to fall (with me strapped to it).

"The next thing I knew, I was upside down, still secured to the tower, my left leg caught between a chimney and a structural beam jutting out of the building. I was saved by my leg getting caught, otherwise, I think the whole tower(with me attached) would have landed on the ground, about four stories down. My glasses had fallen off and "gone the route" and I wasn't sure how much longer it would be before I would be joining them.

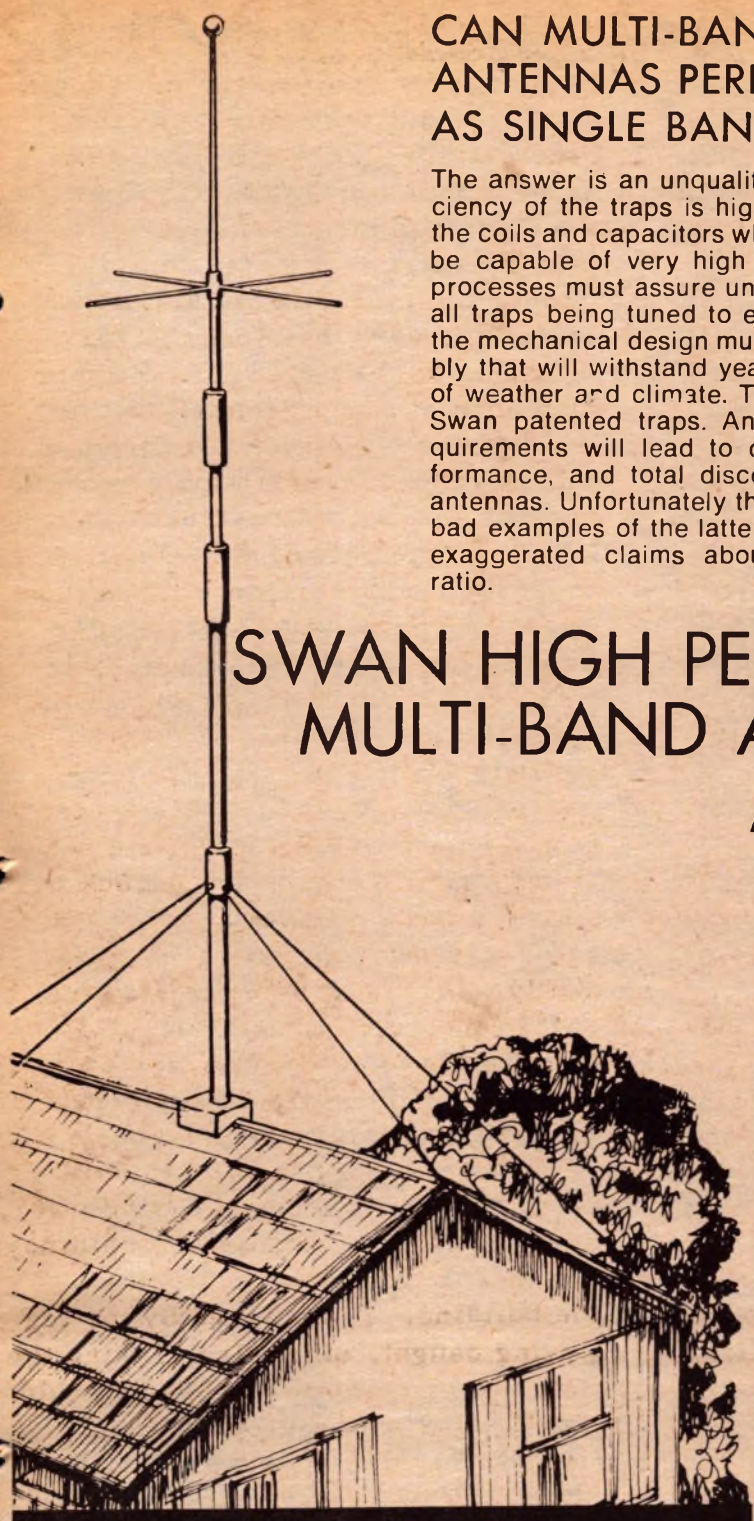
"No one was around and it being cold and the windows of the building being all shut, it was about ten minutes before I finally attracted the attention of a woman across the street. She immediately informed the other Brothers of my prediament. Seeing that I was in serious trouble, one of the fellows called the Rescue Squad while others came to the roof to keep me from falling any further. The Rescue Squad brought the hook and ladder truck and it was instrumental in getting me down. They had to saw away part of the building to free my leg. They put my leg in an air sling and carried me down the stairs to an ambulance which was waiting at the entrance of the building.

"So I got to the hospital and was X-rayed and examined, but by the grace of God, nothing was broken, I was only badly stretched. I stayed at the hospital that night for observation and released the next day. And to think Sister Mary, WA5VBM, just quoted her poem to us the other day about the ham falling from the ladder. My lesson is...you're never too old to learn."

CAN MULTI-BAND TRAP TYPE ANTENNAS PERFORM AS WELL AS SINGLE BAND DESIGNS?

The answer is an unqualified YES, provided the efficiency of the traps is high enough. This means that the coils and capacitors which make up the traps must be capable of very high Q, that the manufacturing processes must assure uniformity and precision, with all traps being tuned to exact frequency, and finally the mechanical design must result in a rugged assembly that will withstand years of exposure to all kinds of weather and climate. These qualities describe the Swan patented traps. Anything less than these requirements will lead to disappointing antenna performance, and total discouragement with trap type antennas. Unfortunately there have been some rather bad examples of the latter on the market, along with exaggerated claims about gain and front-to-back ratio.

SWAN HIGH PERFORMANCE MULTI-BAND ANTENNAS



HIGH PERFORMANCE TRAP VERTICAL

For 10, 15, 20, 40 meters with optional 75 meters add-on-kit.

Its low angle of radiation and omni-directional pattern make the Swan 1040-V trap vertical an outstanding performer. The small amount of space required for this antenna makes it the ideal choice when you just don't have room for a rotary beam. But, even if you have a beam, or horizontal doublet, for the complete station, it will complement your other systems, and with a quick select antenna switch give you a degree of flexibility you'll find indispensable.

The 1040-V can be installed at ground level or on a roof top, and comes complete with all necessary hardware and ground plane radials. The high Q patented traps have the same adjustable design as the Swan multiband beams. Precision factory tuning results in maximum radiation efficiency on each band, with low SWR across the entire band.

- **Power rating:** 2000 watts P.E.P. Requires 52 ohm coaxial feedline. Heavy duty mechanical design. Overall height: 23 ft.; with 75 meter kit: 28 ft. Wind survival rating: 100 mph. **Shipping Weight** 18½ lbs.

Model 1040-V **$49**
75 Meter add-on-kit **$29**

AUTHORIZED SWAN DEALERS

CW ELECTRONIC SALES CO.
1401 Blake St.
Denver, Colo. 80202

ED JUGE ELECTRONICS
3850 South Freeway
Ft. Worth, Texas 76110

FRECK RADIO & SUPPLY CO.
38 Biltmore Ave.
Asheville, N.C.
1012 Highway 64-70
Hickory, N.C. 28601
402-4 W. Dixon Blvd.
Shelby, N.C. 28150
1611 W. Market
Johnson City, Tenn. 37601

AMATEUR ELECTRONIC SUPPLY
4828 W. Fond du Lac Ave.
Milwaukee, Wis. 53216
17929 Euclid Ave.
Cleveland, O. 44103

ARROW ELECTRONICS INC.
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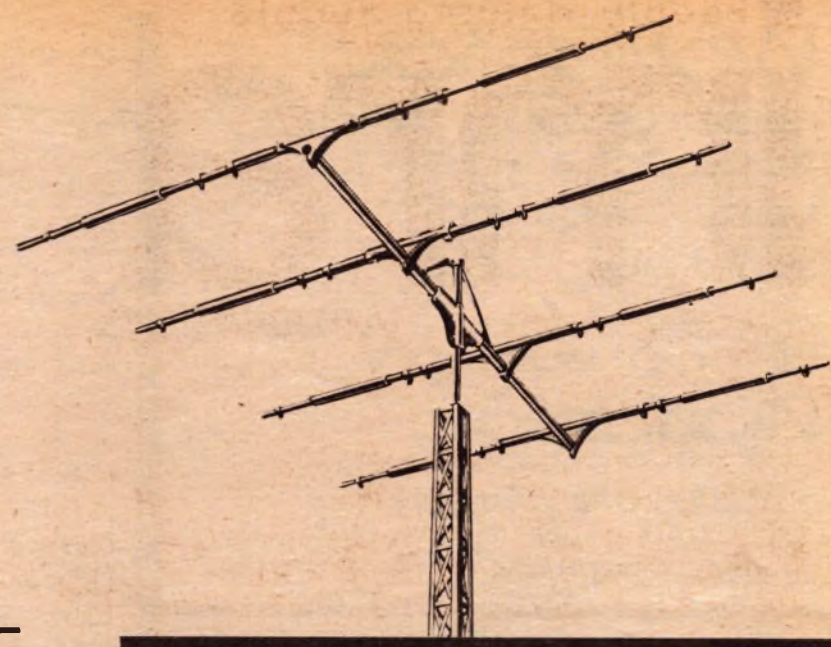
Bayside, N.Y. 11361
97 Chambers St.
New York, N.Y.
195 W. Route 59
Nanuet, N.Y. 10954
900 Broad Hollow Rd.
Rt. 110, Farmingdale, L.I., N.Y. 11735
525 Jericho Turnpike
Mineola, L.I., N.Y. 11501
225 Rt. 46
Totowa, N.J. 07512
18 Isaac St. Shopping Plaza
Norwalk, Conn. 06854

HAM RADIO OUTLET
999 Howard Ave.
Burlingame, CA. 94010

GENE HANSEN CO.
Albuquerque
Box 386, Corrales, N.M. 87048

HCJ ELECTRONICS
8214 East Sprague
Spokane, Wash. 98225

HENRY RADIO INC.
11240 W. Olympic Blvd.
Los Angeles, CA. 90064
931 North Euclid Ave.
Anaheim, CA. 92804
211 N. Main St.
Butler, Mo. 64730



4 ELEMENT MODEL TB-4H

The Swan 4 Element Heavy Duty Multiband Beam gives you 4 working elements on each band: 10, 15, and 20 meters. That's 4 working elements on each band. Other antenna brands, advertised as 4 element antennas, and even 6 element, actually offer only 3 elements on the 15 and 20 meter bands . . . and cost considerably more than the TB-4H. The 24′ boom permits optimum spacing for maximum forward gain and front-to-back ratio. All traps have been precision tuned and weather proofed. The Heavy Duty mechanical design of the TB-4H means it will easily take winds up to 100 mph, and give you years of rugged, reliable service in any kind of weather from the arctic to the tropics.

Price **$129**

3 ELEMENT MODELS TB-3—TB-3H

The "all around" antennas, the TB-3 and TB-3H provide excellent performance, while requiring a lighter duty rotor and tower than the TB-4H. With their optimum element spacing these beams will put out a signal that gets through when others fail. The TB-3 and TB-3H differ slightly in mechanical features. The TB-3H was designed for use in areas where hurricane force winds and/or heavy ice loading conditions are to be found. If you live in an area where such conditions don't occur, then the TB-3 is quite adequate.

3 Element Model TB-3 ..... **$94**
3 Element Model TB-3H **$109**

2 ELEMENT MODEL TB-2

Same design as the TB-3 but with 2 elements on a 6½ foot aluminum boom. Weighing in at only 15 pounds, this model can be a real surprise. An inexpensive telescoping mast and TV rotator will easily get it 60 feet or higher off the ground, and at that height it will out perform a 3 or 4 element beam at lesser height. If your choice is putting up the TB-4H at a 30 to 40 foot height, or this 2 element model at 60 feet, by all means put up the TB-2. You'll put out a terrific signal. Of course, if you can put the 3 or 4 element model up 60 feet, or more, there's no argument. Just don't under estimate the TB-2. It's a little bomb.

2 Element Model TB-2 ..... **$79**

SWAN

SWAN FACTORY
305 Airport Road
Oceanside, CA 92054
Phone: (714) 757-7525

SWAN

SWAN MULTIBAND ANTENNAS

single band performance with patented* tunable traps

Swan has earned its high reputation in the ham radio market by offering top quality equipment, with maximum performance and reliability at a most reasonable cost, backed up by the best customer service in the industry. The line of Swan antennas we now offer, of course, includes these same factors. We honestly believe that our antenna products are the best you can buy, or we wouldn't be offering them to you. The exclusive patented* traps used in Swan antennas explain why they consistently give superior performance. The multiband trap vertical and triband beams described on these pages will deliver your signal to that distant point with a real punch. Ask any ham who is using a Swan antenna, or better yet, check his signal on the air.

Impedance Match: Swan antennas are designed for a near perfect match on each band with 52 ohm coaxial cable. Standing wave ratio will be as low as 1.2 at band center, and only slightly higher at band edges, resulting in extremely low transmission line losses.

SWAN TRIBAND BEAMS
SPECIFICATIONS:

All Swan Multiband Antennas are rated for 2000 watts, and require 52 ohm coaxial feedline

	Forward Gain	Front to Back Ratio	Boom Length and Diameter	Longest Element	Turning Radius	Maximum Wind Survival	Wind Load @ 80 MPH	Wind Surface Area	Net Weight Assembled	Price
TB-4H	9 db Average	24-26 db	24′ x 1½″	28′ 10″	18′ 6″	100 MPH	148 lbs	6 sq. ft.	54 lbs.	$129.00
TB-3H	8 db Average	20-22 db	16′ x 1½″	28′ 2″	16′	100 MPH	110 lbs	4 sq. ft.	44 lbs.	$109.00
TB-3	7.5 db Average	20-22 db	14′ x 1½″	28′ 2″	14′ 11″	80 MPH	100 lbs	3.8 sq. ft.	39 lbs.	$ 94.00
TB-2	5 db Average	16-18 db	6½″ x 1½″	27′ 8″	14′ 3″	80 MPH	60 lbs	1.8 sq. ft.	18 lbs.	$ 79.00

California DX Conference: Jan. 22-23

The 23rd annual California DX Conference will be held in Fresno at the Del Webb Towne House over the weekend of January 22 & 23, 1972.

The Southern California DX Club, hosts for this year's affair, invite all hams who are interested in DX to attend, beginners as well as big guns.

General Chairman Frank Cuevas, W6AOA, has once again lined up an outstanding group of speakers:
Martti, OH2BH - 3CØAN, etc.
Carl, SM5SB - ZA5Z, etc.
Larry, K2IXP - VK9NP, etc.
Darleen, WA6FSC - 3B9DK, etc.

In addition you will enjoy the DX Forum, two hour cocktail party, the famous steak dinner, and the big DX breakfast on Sunday morning.

To top off the festivities, the new Signal/One Corp. of Gardena, Calif. has donated a Signal/One CX7A as the pre-registration prize.

The pre-registration fee of $14.50 should be sent to SCDXC Treasurer Jack Hollander, WB6UDC, 13531 Malena Dr., Tustin, Calif. 92680. Please make your check payable to the Southern California DX Club and include an SASE if you wish a receipt. You will receive your ticket at the Conference registration desk.

Deadline for pre-registration is January 7, 1972; after that date the registration fee will be $16.00.

Jay Holladay, W6EJJ
Publicity Chairman

Hospital needs FM equipment

A small community in Argentina needs some two-way radio equipment for their ambulance. The equipment would be used to communicate with police headquarters and the local hospital.

The request is for VHF, phase modulated, narrow band, 25 to 50 watts output, operable on 12 volts d.c. and be able to operate on 160.595 MHz and 160.535 MHz.

If anyone can contribute such equipment (used, in good working condition will be most appreciated) contact: Dennis Karzag, Medical Relief International, 27 East Canon Perdido St. Santa Barbara, Calif. 93102. (805) 966-9149

SSTV Contest

2nd WORLD SSTV CONTEST
Sponsored by cq elettronica magazine

cq ellettronica magazine proposes the 2nd World Slow Scan Television Contest. The purpose of this contest is to promote increased interest in the SSTV mode of operation as used by Radio Amateurs.

RULES:

1) PERIOD OF CONTEST
1st 1500 - 2200 GMT Feb. 5th, 1972
2nd 0700 - 1400 GMT Feb. 13th, 1972

2) BANDS
All authorized frequencies

3) MESSAGES
Exchange of picture and number of the message.

4) EXCHANGE POINTS
a) A two way contact with a station receives one point. (total points will be the number of individual stations contacted)
b) No extra points for the same station contacted on different bands.
c) A multiplier of 10 points for each continent and of 5 points for each country (ARRL list) worked is given.

5) SCORING
Total exchange points times the total of the multipliers.

6) LOGS
Log will contain: date, time in GMT, band, call sign, message number sent and received, points.

7) PRIZES
1st- A free 12 month subscription to cq elettronica magazine.
2nd-A free 6 month subscription to cq elettronica magazine.
3rd-A free 6 month subscription to cq elettronica magazine.

Special SWL prize

8) All logs must be received by March 20th 1972. Send them to:
Prof. Franco Fanti
via A. Dallolio 19
40139 Bologna, ITALY

feedback

You are doing a fine job for Amateur Radio. This is the kind of publicity that the Amateur fraternity needs and deserves... Lou Seeberger, WA6HQT

I can show my non-ham friends some of the aid given by hams around the world... Ivan Aldrich, WA5WQT

There is a real need for Worldradio...we could be of help to the nation and the world... Harry Grace, WB6RZI

Worldradio is a great idea...it shows what can be accomplished via ham radio...Alex Walker, WA2CTY

I am delighted I subscribed...David Jennings, M.D., WA3QQY

You have come up with a wonderful thing...your paper caters to the idea I have tried to foster; Hands Across the Seas...Gay Milius, Jr., W4NJF

the mart

Teletype fans - Read RTTY Journal, now in 18th year. Exclusively RTTY - Technical-operation-DX-VHF etc. Sample 30¢-$3.00 a year. RTTY Journal, P.O. Box 837, Royal Oak, Michigan 48068

AUTO-CALL keeps up with the latest ham info from Washington, D.C. area. Subscriptions $2.50 a year, sample copies 25¢. Address: AUTO-CALL, 2012 Rockingham, McLean, VA 22101

ARMAGEDDON! Invasion from Outer Space! Written by W3ZS. Free but stamp appreciated. Write:METHODS, 416 Palo Alto Ave. Mountain View, Calif. 94040 K6QF

Join the greatest club in the world. National Awards Hunters Club, International. For free information write To: Joseph Schwartz, K2VGV, 43-34 Union St., Flushing, New York 11355

Worldradio QRP fans: Skeds? Edward, VE3CUI, 205 Cordova Rd. Oshawa, Ontario, Canada.

SAN FRANCISCO- Ham equipment- California Sound Engineers, 475 Barneveld Ave., San Francisco, Calif. 94124

STEPS TO CHRIST. Free but stamp appreciated. Write: METHODS, P.O Box 1263 W, Mountain View, Calif. 94040 K6QF

FOR SALE! Heathkit HW-32A (20-meters), HP-10 DC power supply, Heath mobile mike and speaker. $135. May trade for 2 meter FM rig. Larry Cotariu, WA9MZS, 759 Burr Oak Lane, Park Forest South, Illinois 60466.

QUICK SERVICE!! We have received ads for this section in the Saturday mail. When that issue of the paper was mailed to subscribers on Tuesday, the ad appeared. That's quick service- subscribe to Worldradio.

TWIN CITIES HAMS-Amateur radio gear-See ECI Communications, 127 Third Avenue North, Minneapolis, Minnesota.

WANT-2 meter FM. Selling Swan 400, mobile p.s. & antennas, 6M Squalo, Two'er & 3 El. 2 M Yagi. Contact Gabe Gargiulo, WA1GFJ, 17 Whitney, East Hartford, Conn. 06118

FM- Progress Line Two Meter FM Mobile Transceiver. Two channel, 30 watt, T-power. With tone burst, pre-amp, cables, mike, head and .94 crystals. Like new-Only $150. Rod Jensen, WB6WKC/WB6NXD, 2677 Montrose Place, Santa Barbara, California 93105

Classifieds dealing with amateur radio equipment, buy-sell-trade, three cents per word.

Classifieds dealing with non-radio articles: stamps, coins, books, cameras, airplanes and the like- two cents per word.

Classifieds from business firms- five cents per word.

In an effort to boost the economy we make it possible for every business enterprise to be able to advertise its product or service. Write for Display Advertising Rates. Reach the discerning and serious amateur radio operator with an advertisement in Worldradio.

Late News

this space is for last minute news or information - deadline: 26 hours before mailing - call (916) 456-6725 with news.

On December 28, 1971 at 3:30 p.m. a "triple break" alerted the WCARS net to an emergency. The call was from Daniel Malacara, XE1PZQ, located in a remote area south of Ensenada, Mexico. A U.S. citizen, visiting friends on a ranch, was suddenly stricken with a hemorrhaging ulcer. With no doctor available, XE1PZQ was trying to reach, through WCARS, the victims personal physician in San Diego. Leon Saroff, WB6YFT, in Los Angeles, called San Diego to learn the victim's doctor was away from the city. Leon then called the U.S. Coast Guard in Long Beach and an ambulance plane was dispatched to evacuate the victim. The patient, identified only as a Mr. Rose, was attended to by U.S.C.G. personnel and then flown to a hospital north of the border. During the effort WCARS net control was Bill Schwarz, K6KZI, in Daly City.

Worldradio

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Sacramento, Calif. 95818 USA

address correction requested

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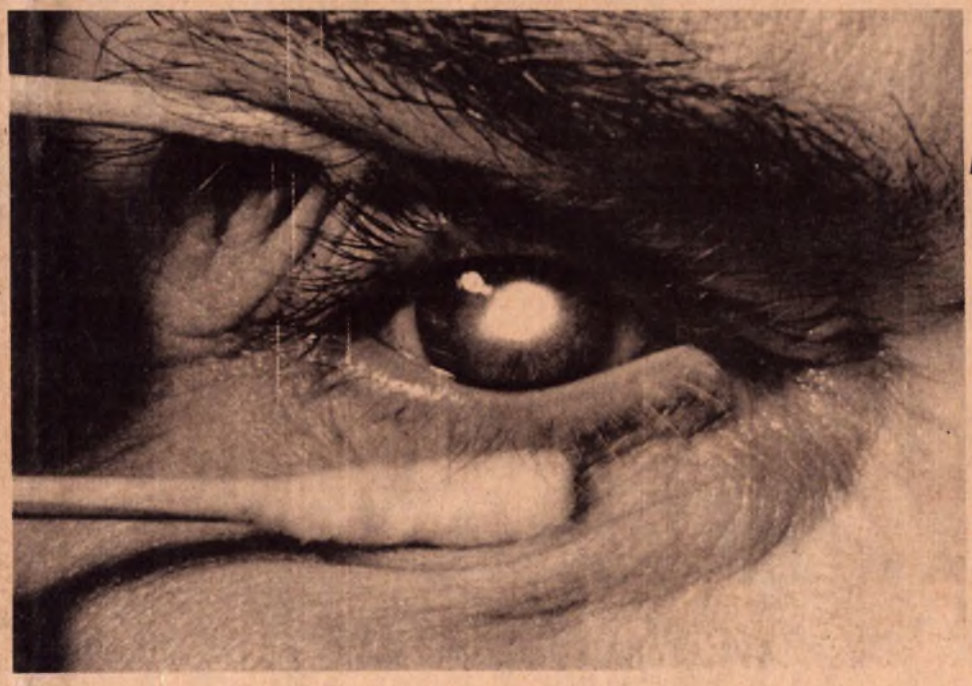

ham radio: health care resource

Clouded cornea before surgery

The Eye Bank Net

so others may see

Same eye after corneal transplant