

Worldradio

May 1972-45¢

international friendship-local public service

Amateurs help in tornado emergency

by Louis Huber, W7UU

A classic demonstration of a monitoring service's capability in an emergency occurred Wednesday, 5 April 1972, when a tornado struck Vancouver, Washington. Six people were killed outright, with hundreds suffering injuries in varying degrees. Six million dollars' damage was done by demolition of a school, a supermarket, a bowling alley and portions of other buildings.

The tornado struck at 12:49 p. m. PST. NAMS (Northwest Amateur Monitoring Service) received the first news of the disaster when James Townsley, K7SUX/mobile, checked in with Monitor Control (Edward Galerneau, W7DFL) in Tacoma.

"I'm on my way to Red Cross headquarters," he said. That is also the meeting place for the Clark County Amateur Radio Club. K7SUX contemplated putting the club station on the air; however, it was out of order and he continued to do what he could as a mobile. Later the club station (W7AIA) did get on the air with a Swan 500C transceiver brought down by Albert Armstrong, W7IOU.

With the first "raw" news of the disaster from K7SUX, NAMS cogwheels jumped a bit--wonderment at first, then a casting about as to what best to do. Arnold Ford, WA7-NVF, and Gerald Foster, W7ZF, in Portland, Oregon (across the Columbia River from Vancouver) themselves well aware of the vicious wind because of torn-off shingles and other debris flying about, were on the air along with W7UU (Seattle) and Monitor Control W7DFL.

"Better set up a local control station," suggested W7ZF.

"Better have it on 3960 kHz locally, and let NAMS keep on as usual on 3970 3970," added K7SUX mobile.

About this time Reuben Tuominen, WA7KKC, (Vancouver) was driving almost in the tornado-struck area. ①

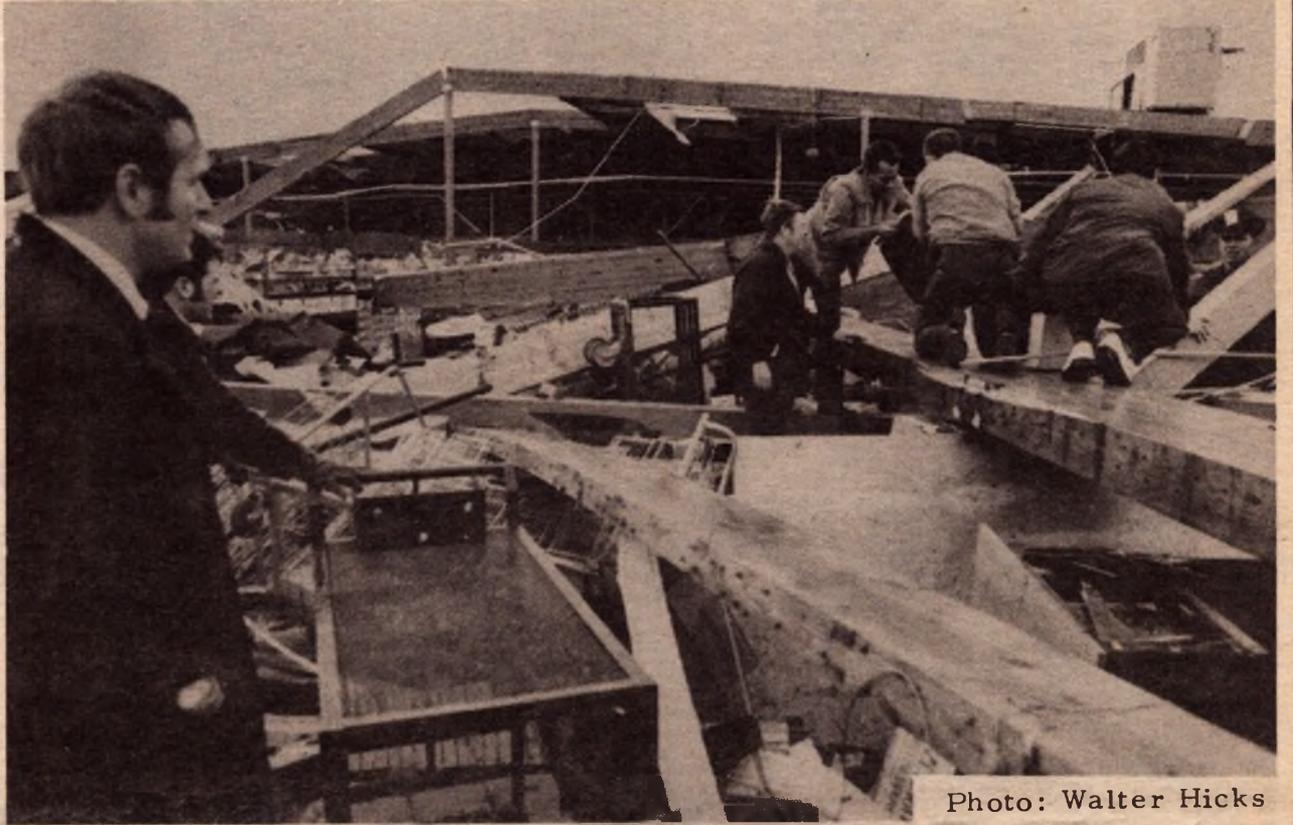


Photo: Walter Hicks

His home was almost in the tornado's path; he had to detour around the devastated area to get home--thus he knew almost precisely the limits of the devastation.

"I'll take it and go down to 3960," said WA7KKC, as soon as he got on the air. This was at 2:40 p. m., less than two hours after the "killer wind" (as the newspapers called it) struck. Let us mention here that WA7KKC has been licenses only a little over two years. His performance in this instance, and for the next three days, leaves no doubt as to his proficiency--it was tops!

WA7KKC's son, Monty, a student at Washington State University (Pullman), was home on vacation. He spread out a map of the city and they circled the devastated area.

"Give us addresses," said WA7KKC --for health-and -welfare inquiries already were coming in -- "and we'll see if they're in the disaster area. That's the best we can do right now."

Bill estimates that somewhere around 1,000 inquiries were handled that same day -- over his station and others in Vancouver. Something less than that during the next day (Thursday), plus a few stragglers on the third day (Friday) and Saturday--

probably 2,000 altogether. Telephone service was destroyed in the devastated area, of course, and remained "out" locally until midafternoon Friday, although some telephones got into operation somewhat before that.

Incoming long-distance calls were met by the "recorded announcement" during this period -- so Amateur Radio was the only way relatives had for finding out how their kin had fared.

WA7KKC was on the air continuously from soon after the disaster until 6:30 p. m. (a stretch of four jam-packed hours); then he grabbed a bite to eat and drove over to the Red Cross headquarters. By this time W7AIA, the Clark County Amateur Radio Club station, was on the air by means of WA7MQC's transceiver. Bill, WA7KKC, manned the city map at the club station, checking out addresses one by one as they came in thick and fast.

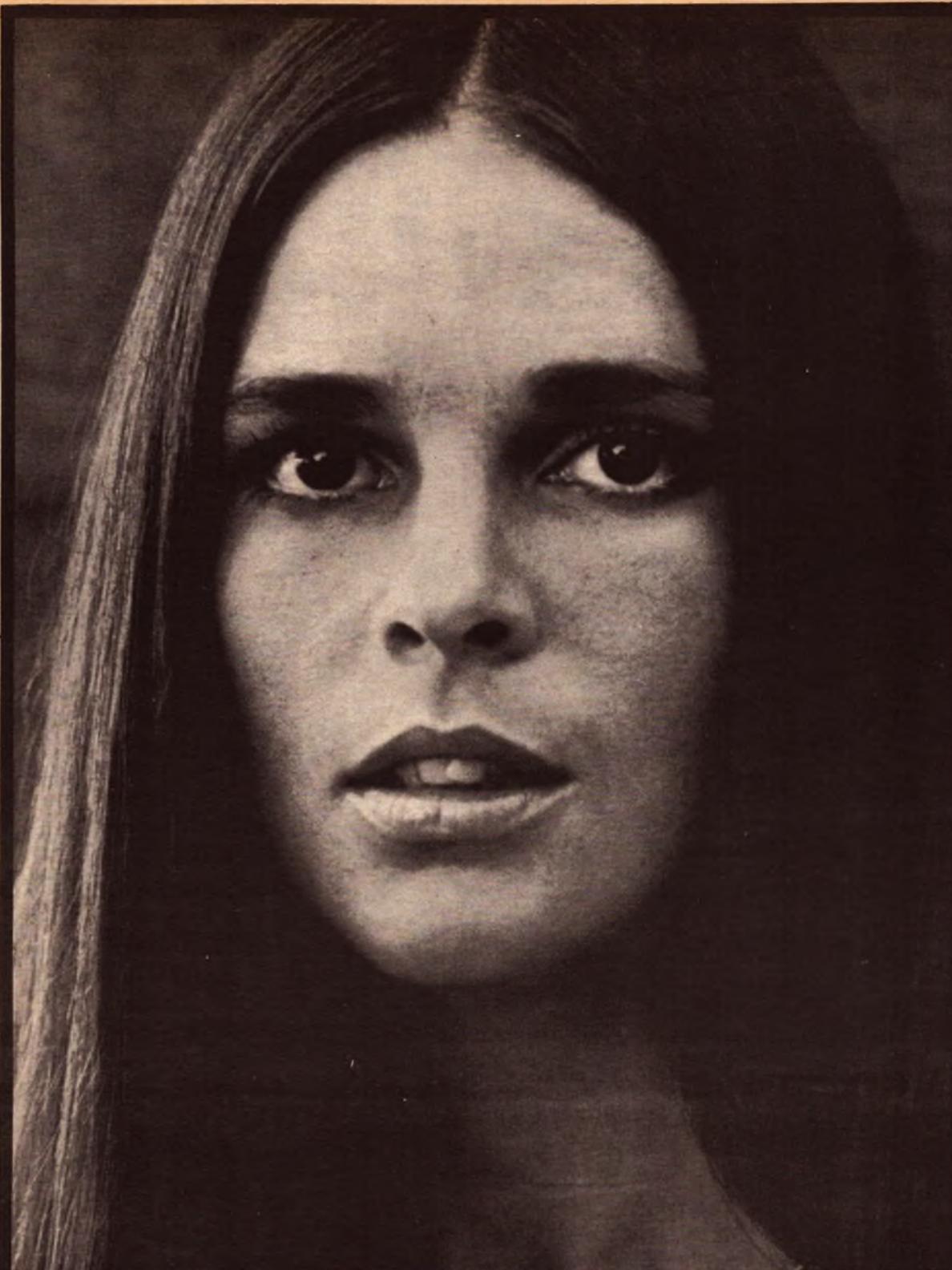
Mid-evening brought some phone-patch activity through other Vancouver amateur stations (for telephone service was possible outside the devastated area, of course); Robert Sherman, W7EEA, (who is totally blind) handled a number of them with great efficiency on about 3950 kHz. Sally Hansen, WA7-OAS, with other Vancouver amateurs (Turn to page 22, please)

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What's Happening

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Worldradio

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May 1972



INFORMATION

Staff
 Armond Noble, WB6AUH
 Stu Churchon, W6OMK
 Bill Horsley, WB6WCY
 Darleen Souigny, WA6FSC
 Sid Hall, WB6BNZ
 Ken Welsh, WB6FKV
 Dan Turk, WA6JRP
 Stan Kellogg, W6KPR

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Worldradio is two-way communications. Send in Amateur Radio news and information. Share your knowledge with your fellow amateur and Worldradio reader. Photographs will be cared for properly and returned. We are most interested in your comments and suggestions. We would appreciate being placed on the mailing lists of Amateur Radio club bulletins.

Worldradio has a Swan 270 Cygnet (220 v.) transceiver, in carrying case, available for loan to medical personnel, relief agency staff, etc., going overseas on the short-term volunteer tours.

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

COMMUNICATIONS

FCC

The Federal Communications Commission has assigned numbers to three petitions for changes in the amateur rules, as follows:

RM-1877, by Ray Dopmeyer, an ex-amateur, to prohibit delivery of amateur messages by collect phone call, except when specifically authorized.

RM-1880, by W6DDB to delete the Novice 80- and 2-meter bands and assign harmonically related frequency segments on the 40-, 20- and 15 meter bands.

RM-1907, by WB2OZW, to assign 2x2 calls (WA2AW as example) to Extra Class licensees with less than 25 years service, and to shift SSTV to the high end of each phone band or to dividing line frequencies.

More petitions to the FCC for rule-making include:

RM-1912, by K4PJW, to grant General Class licenses to Conditionals over 65 who have not been cited for rules violations, and anyone over 70 to be considered unable to travel, thus eligible for Advanced Class exam by a volunteer.

RM-1920, by C.W. Tazewell, to combine the Novice and Technician classes, with the 28-29.7 MHz band added, a new code and theory-less renewable Novice class with telephony only on 10-, 6-, and 2-meters and over 220 MHz.

RM-1873, by W9JT, to limit CW to 50 kHz segments at or near the bottom of each major band, with the rest exclusively for sideband (including a small segment for Novices.)

(by E.S. Van Deusen, W3ECP, in AUTO-CALL)

ACTIONS IN DOCKET CASES

By Chief Hearing Examiner Arthur A. Gladstone on March 27:

Terminated the hearings and certified to the Commission proceedings on orders to show cause why the licenses for the following stations should not be revoked:

Peter J. Metz, Valinda, California, licensee of Amateur radio station WB6LXJ; Bruce F. Evangelista, Bolingbrook, Illinois, licensee of Amateur radio station WB9GQS/M4.

YLRL

The international organization of women amateurs meets in Long Beach, California, May 26, 27, 28, 1972 at the Edgewater Hyatt House on Pacific Coast Highway overlooking the Long Beach Marina.

All licensed YL's are invited to join in the biggest "Eyelash" QSO celebrating the 33rd birthday of YLRL at this sixth international convention.

As "33" has become the traditional sign-off salutation for QSOs between YLs, the 33rd birthday is a high point in the history of this organization of women amateurs from all over the world, now numbering close to a thousand members.

The host club of Los Angeles YLs plan a visit to the Queen Mary, harbor tour, special tour for OM's to Swan Electronics in Oceanside, entertainment, prizes, operation of club station W6MWO.

The program includes entertainment by Chris, WB2YBA, and Flo, W7QYA. Mae Hipp, WA7QGO, YLRL President will preside at the convention. All YLs attending are encouraged to come supplied with a pocket full of snapshot copies as "swaps" to exchange with calls and autographs.

Pre-registration (before May 15) of \$12.50 includes Birthday Luncheon and Luau banquet; \$14.00 after May 15. OM's banquet ticket \$6.50.

Write Convention Committee, Box 3092, Long Beach, CA 90803, and "Join the YL Crew in '72."

(de Roxanna Griggs, K6ELO)

Medical traffic

On February 17, 1972 at 20:57 PST Leon Saroff, WB6YFT, picked up an emergency call on 3952 kHz, the Western Public Service System Net. The call was from Bob Rose, XE2MMK, in San Vincente, Baja California and concerned a 50-year old woman in a semi-coma due to an ear infection. Saroff relayed a message to the woman's physician, Dr. Leonardo Simons, in San Diego. He advised the patient be taken to the Catholic Hospital in Ensenada, 75 miles north of San Vincente and he would make arrangements for her admittance and care. Bob Rose, XE2MMK, on December 28, 1971, was taken ill and WB6YFT arranged for a Coast Guard helicopter to fly him to San Diego where he was operated on for bleeding ulcers. (See "Worldradio" 17 January 1972) During this latest emergency Andy Winter, W6OAW was net control.

ARRL

Official Bulletin #367 March 30, 1972
The election of Robert W. Denniston, WØDX, to the presidency of the International Amateur Radio Union has been assured by the early receipt of a majority vote from member societies. Denniston was proposed for the IARU post by the ARRL at the January Board of Directors meeting. Previously, the ARRL and IARU presidency was a combined position. Increased responsibilities and demands, however, led to separation of the offices. Formal announcement of Denniston's election will be made in the June IARU Calendar issued to member societies.

Official Bulletin #368 April 6, 1972
On April 10, 1972, David H. Houghton marks 50 years of service to the League. His conscientious watch over detail, his personal integrity and devotion to duty played a large part in the growth of the League. Although formally retired as Circulation Manager of ARRL in 1965, he has continued to serve as Treasurer. David H. Houghton is probably the only individual who will ever be able to say that he worked at the Headquarters for half a century. His many friends, co-workers and business associates join in saluting DHH on his 50th anniversary of service to amateur radio.

Official Bulletin #369 April 13, 1972
Effective April 30, the W1AW schedule will change to Eastern Daylight Saving Time. The full operating schedule for the summer months, including the new W1AW frequencies, appears on page 107 of the April issue of QST. Note that W1AW bulletins, and code practice continue to take place at the same local clock time in most areas. For example, daily code practice at 10, 13 and 15 wpm occurs at 7:30 pm Eastern time and 4:30 pm Pacific time. Newly revised copies of the printed information will shortly be available without charge from ARRL, 225 Main Street, Newington, Connecticut 06111. Please enclose an addressed stamped envelope to expedite your request.

Official Bulletin #370 April 20, 1972
Attention DXers. Announcement is hereby made of the deletion from the ARRL Countries List of the Ryukyu Islands in view of their retrocession to Japan. DXCC credits for contacts made prior to May 15, 1972 may be claimed for the Ryukyu listing. Contacts made on or after that date will be creditable as Japan. Further information appears on page 124 of the May issue of QST. An additional note of interest to members of the DXCC Honor Roll is the availability of a special pin, details page 121 of the May issue.

Friendship

Blind Since Birth, Girl Becomes a Radio Ham

By LLOYD WATSON

and Makes Friends All Over World



Ginny Collawn, WB8LSW/HK3, and Ruth Paez, HK3BLD, in Bogota, Colombia

Recently licensed Ginny Collawn, WB8LSW/HK3, says, "I had, for a long time, looked forward to operating my radio but really had not anticipated the tremendous pleasure and satisfaction arising from contacts with other hams. I could not help but be amazed to discover how wonderful people are, and to establish friendships with those I thought were just going to be voices! I realize I don't have to convince you of the joys - it's just that there is nothing quite like it."

Friend Phil, W9LDX

(Phil Pector, W9LDX, currently living in Germany, has been travelling through Europe, Africa and the Middle East for the past 15 years. He is one of the biggest boosters of "Worldradio" on the continent. Below is an excerpt from a recent letter from Phil.)

I have been a ham for over 20 years and I have received a tremendous amount of joy from the hobby and the people involved. I have always tried to put something back into the hobby and the industry which nourished it. I certainly do not want to be classed as a parasite. I have donated my time, old parts, books, subscriptions, money, you name it, to our less fortunate ham brothers. I have talked to and assisted many individual hams, clubs, student clubs and other groups in other lands. I have demonstrated my own equipment and allowed others to help me enjoy my good fortune.

I refuse to become the well-known "Ugly American" when I visit other lands. When I see our fellow hams

struggling to acquire many hard to get components it really bothers me for I recall all the material I have seen discarded. This then makes me sit up and take notice of what a really great country the U.S. is. The longer I stay out of the states, the prouder I become. I have become more aware of the many opportunities that exist for us. Being away from one's own homeland provides a different point of view.

I am still trying to figure out what on earth the present young generation in the U.S. is revolting from. If they are dissatisfied with the many available benefits to them, then let them step aside. They can provide a chance for the less fortunate individuals to absorb the good fortunes which they may be discontented with. In fact, I have plenty of friends overseas who I am sure would gladly exchange places with them.

Probably more people should go abroad and take a closer look at conditions and then compare them with the ones they left behind. Most people in other lands, that I have come in contact with, have expressed their desire

Joan Carlson, blind since birth 21 years ago and denied the ability to live in the world of sight, has found a happy substitute in the world of sound.

To her neighbors, Joan is that slender, delicate-featured girl next door with light brown hair and a big smile. To her many friends across America and around the world, however, she is the voice of WB4GHD, ham radio operator in Miami, Fla.

WB4GHD is a light, tinkling voice — on the air up to six hours a day during the summer months.

And if WB4GHD has trouble transmitting because of atmospheric conditions garbling voices, she can still talk to her friends — by tapping out messages over the radio in Morse code.

"It was baffling at first," Joan says about her ham radio experience. "But now I love it. I have several hundred friends, and I've memorized most of their call signs.

"Many of the people I talk to all the time don't know that I'm blind. How could they? But it doesn't seem important."

First introduced to ham radio during her days at the School for the Blind in St. Augustine, Fla., Joan won her novice's license in 1964 and her advanced ham radio operator's certificate in 1970.

"I've been involved in no high dramas yet," she said, "but listening and talking is



always very interesting. A ham radio operator could never be lonely, the whole world is out there."

Joan has not only found new friends across the world through her interest in radio — she has also found romance.

She met Steve Miles, 24, a fellow ham, when they were both active in a radio club while they were students at Miami-Dade Junior College.

They plan to marry when Steve graduates from the University of Florida.

(From MIDCARS "Radio Watch" de "National Enquirer")

to travel but were unable to. When a ham visits foreign hams, most obstacles are soon overcome and they are quickly absorbed into the local environment. I have gone the tourist route, but I much prefer the ham route.

One thing that always rekindles my enthusiasm is, when I see the efforts of the handicapped adult or child. I remember how when I was in my teens, I sweated to get my ticket even though I had command of all the normal human abilities. I can only marvel at and praise the courage of the handicapped ham who is able to obtain a license. Some of whom have gone on to surpass many of us so-called normal types. I've been assisting a handicapped group in one country. I was asked, "Why do you donate your time and money to assist us?" All I could answer was, "Because I can." This always stopped the questions.

I suggest you come up with a pocket edition of the "participants" list. This could also include their address, profession and possibly their telephone number and other pertinent information of interest. The book could be so designed that pages could be added in (Turn to page 28, please)

Don Payne, K4ID, says

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Carl Sletten, W1YLV

Editorial

The Federal Communications Commission is considering the possibility of having the call signs of Amateur Radio Operators reflect the class of license. We are opposed to this proposed rule.

First, Amateur Radio is a democratic hobby! From their shacks, generals chat with privates, college presidents discuss things they have in common with high school dropouts and janitors are on a first name basis with corporation presidents. At the local radio club a common laborer often sits next to the physician and they learn something from each other.

Hams find that the search for strata and status that afflict our society disappear and a QSO can be pleasant. We don't need call letters spelling out a "Duke", "Lord", "Earl", pecking order.

It has been stated that such a system is necessary in order for the monitoring stations to identify an operator in a portion of the band to which he is not entitled. Which brings us to the second reason to oppose such a move.

The FCC has long said that they do not have the funds or the manpower to police the bands against "jammers". As reported in this publication (April 1972, page 4) Chairman Dean Burch said, "The Commission does not have the staff nor do we attempt to budget for a staff to operate like a local police department which could investigate each individual complaint".

"Jammers", we believe are a far more serious problem, and a destructive anti-social element than the operator who may drift down in the band. We are certainly not condoning such actions, since they are violators of the law, but this situation strikes us as quite similar to if your local police chief went on television to announce, "We have found it quite difficult and expensive to apprehend murderers and bank robbers so we're not going to make a maximum effort in that direction, however to make up for it we are launching an all-out major thrust to catch jay-walkers."

From the conversations on the bands, the correspondence that comes into this office and talking to amateurs at conventions we believe the amateur population is far more concerned about "jammers" than "drifters".

We suggest that all the paper shuffling, manpower and funds that would go into re-issuing nearly 300,000 licenses be instead channeled into catching "jammers".

We also wonder how the ham population will feel when all their awards, wall signs and plaques, call letter badges, tie bars, lapel pins, rubber stamps, QSL cards, etc., have to be replaced with their new call.

But the issue is even greater than the financial inconvenience. According to the way we interpret the structure of this nation we are not governed but are the government. We are self-governing. Those who have titles and hold offices are but our public servants who operate the machinery of government for us. And they are there to do the bidding of the people. And that's it. They are there to do the bidding of the people, not the other way around. And knowing the political philosophy of Mr. 6

Burch, we would expect that he would agree wholeheartedly with that interpretation.

It is rather obviously apparent that the amateur population wants "jammers" caught and prosecuted. And if that's what the people want, that's what the people should get. If the taxpayers want the FCC to function like a police department or a law enforcement agency, the FCC should function that way.

The FCC has also announced that when amateurs renew their licenses that on a random basis certain operators will be asked for their logs to make sure they have met the requirement for operating a certain number of hours in order to retain their license. While to lie on the renewal application is indeed a violation of the law we are hard pressed to think of a more innocuous act against humanity.

It resembles the local police chief now admitting that the campaign against jay-walkers isn't going to well so the next major struggle will be against those who throw gum wrappers on the sidewalk.

It should be noted that at one time the Commercial Radio Operators licenses, in order to be renewed, had to be signed on the back by the person you worked for. Later the FCC waived the service requirement and the licenses are renewed even if they have never been utilized.

Possibly such a direction would be beneficial with the amateur licenses also. If a person passed the tests, is willing to spend the money to renew every five years, and never got on the air, no one would be harmed and the government would make a few dollars. They could also be able to spend their time on more meaningful pursuits.

At present hard narcotics are pouring into this country practically unchecked. As a consequence a good portion of a generation is going to grow up with their brains made of mush. Seems that those that deal in such poison are as immune as "jammers". Again, a lack of manpower and funds is quoted. Seems since our taxpayer-supported enforcement agencies can't catch the major drug pushers they will instead spend manpower and funds to go after those who (due to the press of business, school, or other obligations, or maybe just too broke to buy gear) didn't spend five hours on the air in the past year, but would still like to retain their license.

Somewhere in this nation there must be a more demanding and challenging problem facing us that justifies the expenditure of precious money and the assignment of educated people than those few that might fudge on the renewal form. Seems that most who lose interest allow their licenses to lapse. It could turn out to be an expensive pursuit of an almost non-existent offense.

The whole situation seem similar to a story in the paper about the police in Toledo, Ohio. Making a routine check of their files they found an outstanding warrant on a drunk and disorderly charge dated 1940. They immediately charged out and arrested a 68-year-old man for the offense committed 31 years ago. We well imagine that the citizens of Toledo would prefer the police spent their time apprehending the crook who stole their car that morning or robbed their

store last night rather than an elderly harmless man who went on a toot prior to WW II.

Amateur Radio does indeed have its own similar agonies.

On the west coast (as in other parts of the country) we have been plagued by the same jammers, who come on at the same time, the same frequency, just about every day for years now. They cannot be caught, it seems. But two of our more responsible amateurs received citations because while chatting across the Los Angeles basin on 75 meters at 2 a.m. they forgot to identify until four minutes after the mandatory ten minute interval had passed.

It seems the amateur body would far rather see a maximum effort made against the truly destructive elements existing than a piece-meal campaign against such offenses mentioned above. The analogy to the Toledo police department is striking.

Remember, you are the government, the agencies do what you want. They must hear from you as to what directions you want them to take. People get exactly the type of law enforcement they deserve. We are after all, self-governed.

In the spirit of fairness, any disagreement with the above will be granted equal space to a spokesman for a responsible organization or agency. Individual comments will go into the letters column.

ARRL BULLETIN #371 April 27, 1972

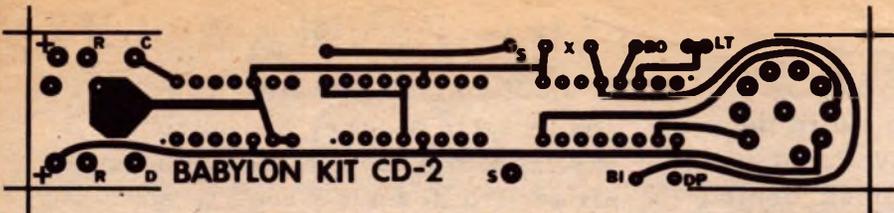
Early this summer work will begin on the Fall 1972 ARRL Net Directory. If your public service net has not been reregistered since July 1, 1971, it will be necessary to do so before July 1, 1972 to ensure listing in this coming tabulation. All public service nets are eligible for listing in this free annual directory. Send to ARRL at once for the net registration card, enclosing an addressed stamped envelope to expedite delivery. Remember that all public service nets must reregister within the year ending July 1, 1972.

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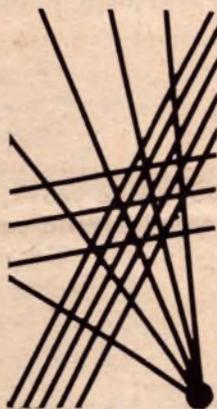
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Unit includes board, SN7490, SN7475 quad latch, SN7447 7-segment driver and RCA "numitron" display tube w/decimal 1" x 4.5" module will mount on 1" centers. kit \$12 - wired and tested \$15.



Linear Special

TEN (10) TELEDYNE TO-5 741 operational amplifiers with a two page sheet of application notes covering the basic circuits using op-amps. \$0.75 each. Op-amp package 10-741's, data sheet and application notes-only \$7.00

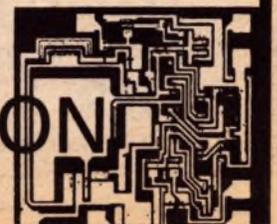
**OVERSEAS
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INVITED**

7492 divide by 12 counter.....	1.40
7493 4 bit binary counter.....	1.40
74154 one of 16 decoder.....	3.00
74192 up/down decade counter....	2.25
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LED Red Emitting Lamp.....	.60

All IC's are new and fully tested - leads are plated with gold or solder. Orders for \$5 or more will be shipped prepaid. Add 35¢ handling and postage for smaller orders. California residents add sales tax. IC orders are shipped within two workdays of receipt of order-kits are shipped within ten days of receipt of order.

Money Back Guarantee On All Goods Sold

BABYLON



"Emergency! Requesting an ambulance and assistance from the Michigan State Police in Wayne county on 194 east of State road. It's a two car accident and both traffic lanes are blocked. Two women are trapped in one auto lying on its top. The driver of the second auto was thrown clear and is in the ditch, apparently unconscious. I'll stand by on the scene until aid arrives."

This is an everyday example that can or does happen to the Midwest Amateur Radio Service. When it does, ham radio operators go into action, and assistance is on the way to the scene in a matter of minutes. The amateur radio operator with a two way radio in his car can often times get help to an accident scene faster because he is on the scene and sees what is needed. MWARS devotion to Public Service has without a doubt saved lives in many serious situations.

Although there is little publicity on such occurrences, it isn't done for the publicity, but from the desire to put a hobby to use and give aid voluntarily to anyone in need of such service. The people who work in this group aren't Supermen or people paid to do their thing. They are traveling salesmen, vacationers, or just someone headed to or from work who runs head on into a situation just after it happened.

It all started as an idea in January of '69 as four men chatted about how ham radio could be used for public service. A suggestion that they form a group that would monitor a certain frequency all day long. The 40 meter band was chosen because it is the best for all around mobile operation. Usually a mobile can talk 400 miles away regularly and 7258 Mhz. was to be the listening channel.

Those four men with a dream never imagined what would happen in the few short months that lay ahead. The idea caught on and mushroomed until today the service boasts over 700 members with officers duly elected to keep things running smooth. The entire Midwest is covered from Colorado on to the Gulf of Mexico, to the New England States and Canada. The service is run on a voluntary basis with no charge levied for its use. Its operation is seven days a week and all who participate are licensed by the F. C. C.

The intent is to keep a clear channel for mobile operations as they have less power than most home stations and could get lost in the shuffle quite easy. Volunteers act as control stations to keep things running smoothly--someone needs weather information in St. Louis, confirmation of motel reservations in Little Rock, car trouble near St. Paul, a vacationer needs a phone patch into Detroit to talk to his family, all this being done from their cars as they continue on down the highway.

They are average people like you and me, take the past president Ed Brown, WØWYJ, from St. Louis. He recently bought a new mobile rig for his car and proceeded on a very cold day to install it. Many hours later and half frozen he had it installed and working. Elated over the fact it worked, he decided to take a drive and try it out. Ed jumped into the car, started the motor, closed the door and started to back out when he noticed it had quit working! Well after many attempts to locate the problem, he discovered to his embarrassment that he had wired it to the dome light and every time he closed the door the radio quit and the light went out. Or the time Don, W8QHW, from Cincinnati wired his rig to the stop light switch and drove around with his foot on the brake to make it work. The prize was taken by W9FZC, John,

in Madison, Wisconsin. It seems John was in a hurry and grabbed a car from the State motor pool and proceeded down the road to an appointment with destiny. A short time later he was pulled over by a Milwaukee sheriff's cruiser. It seems John's face got a little red as he learned that the tags on the license had expired. You ask, What does John do for the State of Wisconsin? Well, he sells license tags.

Midcars is serious - funny - generous. If one of the members need help with a project at his or her home, a group will get together and lend a hand. Sharon, WA8ETY, from Imlay City was in need of help with an antenna as she had just moved to a new location. W8MZS, Jonesy from Detroit, K8GHS, Gordy from Saginaw, and W8NXD, Ronn from Muskegon drove over to give a hand. If you ever saw a funny sight, that was it. The antenna was mounted on a 45 foot piece of 2" water pipe and mighty heavy. It was too awkward to move by conventional means so they put it on their shoulders and started down the road. You can imagine what the passing motorists thought as they drove by and saw it. They carried that thing half a mile down the road then across a big field. They were all surprised that it still worked after it was reinstalled in the new location. It was really worth it all as Sharon's dad cooked an Italian dinner that was out of this world.

Many get-togethers are planned during the year all across the U.S. Picnics are the most popular, with Hamfests and an eyeball QSO over a cup of coffee running second. Amateurs are one of the friendliest fraternities in the world, as radio knows no limit to race, creed, or color.

Grab a radio - tune it to 7258 Mhz. - listen in and just maybe we will be talking to you!



Around the World

Worldradio

"the people paper"



**THE PEOPLE OF ASIA
NEED BOOKS AND JOURNALS**

UNESCO has designated 1972 as International Book Year. The Asia Foundation's Books for Asian Students program has set a goal for the distribution of one million books and journals for this Year. Your help will be greatly appreciated.

Books in the sciences, technology, social sciences and humanities dated 1960 or later in good condition, and professional and technical journals in runs of ten years or more are needed.

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**BROADEN
YOUR
HORIZONS**

**LEARN A
LANGUAGE**

APPEAL FOR HELP

This is written in the hope that your readers can help to brighten the lives of shut-ins, too often confined within four walls and cut off from the world outside.

For many of these unfortunates—children and adults alike—even a simple hobby can brighten their days. One such hobby is stamp collecting.

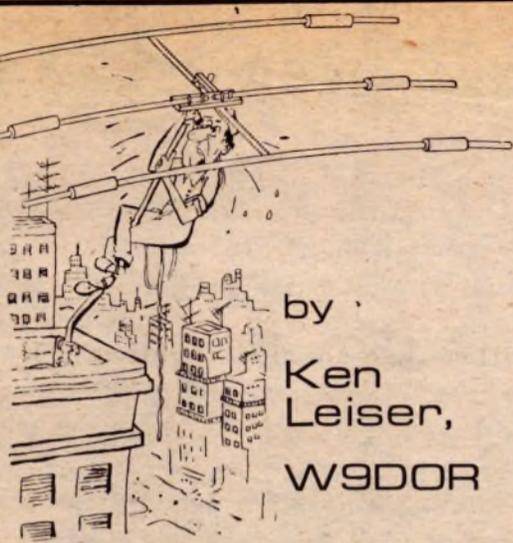
That is why we have started a project called "Stamps For Shut-Ins."

We need foreign and American postage stamps in whatever quantity you can provide. We also need albums that perhaps are gathering dust.

J. RAYMOND

Stamps for Shut-ins,
1815 Grant Street,
Berkeley, Calif. 94703

Drawing from QSL card of
Luis Gomez, LU8AJG



by
Ken
Leiser,
W9DOR

"We Never Heard Of Such A Thing"

good time to check the entire antenna system very thoroughly. After all, I had no definite proof that the coax cable was at fault. I removed the trap sections and examined each one closely.

While handling one of the trap sections, imagine my surprise when water started dripping steadily from one end of the trap!

I knew that I had found the cause of my trouble!

Reviewing the data that came with the beam revealed the following statement: "Exclusive patented weather-sealed trap design, and "since moisture cannot enter the frequency divider sections or the extending elements, it is not necessary to tape or otherwise seal them.

There was no easy access to the inside of the trap as the aluminum sleeve was double machined crimped near each end. Using a hammer and cold chisel I got a start near the end of the sleeve, and proceeded to peel it off, similar to peeling an orange.

Of course, this ruined the sleeve, but by using care, the trap coils were not harmed. It was found that three of the six sections contained a considerable amount of water. The other three trap sections were completely dry.

Now the reason for the strange SWR readings was apparent.

When the antenna moved, water in the trap sections sloshed around and the SWR went way up. It could not return to a lower reading until most of the water had drained off the coils to the low side of the trap.

Next I conducted tests to determine how water had gotten into the trap sections. I found the water had worked its way into the trap sections in either one of two ways. Water within the inside of the antenna element had worked past a plastic plug, pressed into the end of the element within the trap section. Water had entered the trap section from the outside by working past the double machine crimp near the end of the sleeve.

Measurements revealed about nine feet of 1-1/2"x.035 seamless aluminum tubing was required for the trap sleeves. Each sleeve must be cut to the exact required length since the length is a critical factor determining the trap frequency. After numerous phone calls and trips to several stores, I knew that the tubing could not be found locally.

At this time a long distance phone call was placed to the antenna manufacturer with the explanation that the traps had been loaded with water. I was told, "We never heard of such a thing." In order to avoid the additional delay of sending in the trap sections for reassembly, I inquired if they could furnish me the aluminum sleeves so that I could reassemble the traps myself. After a few days and two more phone calls it was confirmed that the sleeves were being shipped.

As I waited for the shipment to arrive I pondered how I could prevent this problem from happening again. The solution for water entering the trap sections from the inside of the antenna element is to prevent water from getting inside the elements in the first place.

Therefore, the element must be sealed watertight at the ends, at the sliding sections, and at element to boom mounting brackets. The ends of the trap sections themselves must be sealed watertight to prevent water from entering the trap from the outside.

I used epoxy to seal these joints and also sealed the end of the coaxial cable in this manner. Sliding element joints must, of course, be set to the correct length before sealing. The use of silicone seal rubber caulk for sealing the sliding joints will provide a semi-permanent seal which will facilitate disassembly of the antenna, if required in the future.

When the sleeves arrived, the sections were reassembled. Rather than machine crimping I used a hammer and blunt punch. I feel sure that this alternate method provides satisfactory electrical continuity and mechanical rigidity, although the appearance is not as attractive as the original crimp. The application of epoxy on the ends of the sleeves to provide watertight sealing completed the reassembly job.

My station is now back on the air and the tri-band beam is again functioning normally. I am confident that I will not be off the air again because of the same problem.

Perhaps you will never experience this same problem, but if similar symptoms develop at your station, don't overlook the fact that "it happened to me."

In case you purchase a new trap beam check it over very carefully before installing it. You may decide to apply some watertight sealing of your own. This could prevent you from being off the air sometime in the future because of water in the traps.

"Water in the traps? We never heard of such a thing."

*Anatomy of the B-T Field Strength Meter, by Fred Schulz & Joseph Glabb. Published by Blonder-Tongue in "Solution 1" June, 1968.



FOR SALE: Robot SSTV monitor, serial # 15203 - \$300. Fred Muller, WA6LQL, 1133 86th Ave., Oakland, Calif. 94621

ARRL CONVENTION:
West Virginia State ARRL Convention. July 1-2, 1972, Jackson's Mill, West Virginia



REMINDER TO THE READERS-
Those who enjoy "Worldradio" and would like to help their paper grow are invited to send in the names and addresses (or calls) of friends who may be prospective readers. A sample copy will be sent without charge.

HAWAII HAMFEST:
June 18, 1972 - 10 a.m. until ? - Nimitz Beach, located at Barbers Point Naval Air Station. Swap meet, door prizes, contests, demonstration of SSTV, lots of fun for everyone. Registration for door prizes \$2. Good swimming and picnic area so bring a picnic and the family and make a day of it.

My 400 watt PEP transceiver and three element tri-band trap beam have been in daily use for about a year. Performance has been satisfactory and my log shows that I have had many fine contacts, including several new countries.

The first indication that all was not well came one morning as I switched to 14 MHz and tuned up the transmitter. Tuning was normal into the dummy load, but to load the antenna I had to move the loading control to almost 1 o'clock instead of the usual 10 o'clock setting. Checking 10 and 15 meters disclosed that on these bands the loading control also had to be set higher than normal.

Later in the day I got in a pile-up on 10 meters and finally did work the VR1 for a new country. My signal report was Q5, S9, which wasn't too bad, considering the band conditions, but it seemed to take me much longer than usual to make the contact.

Obviously there was trouble somewhere in the antenna system. I wondered if the transmission line was at fault, and I recalled the cautionary note that I had read * which stated, "Do not use foam filled cable, since the dielectric tends to deform when bent." My transmission line was foam filled coax cable.

The next morning I connected my SWR bridge in the line at the transmitter. It had previously been removed to use for checking another installation. On all bands, including 20 meters, the SWR readings were found to be reasonably low, and this morning the loading control setting was close to normal.

My thoughts returned to the coax cable. Perhaps it had a defect in the looped portion near the rotator. To check this, I rotated the antenna and the SWR immediately jumped up to 3.5. Then I rotated the antenna again, expecting to find a position where the reading would return to a lower figure. Although the reading fluctuated as I moved the beam, a lower reading could not be obtained.

By now I was convinced that the beam must come down. With the help of several people, the self-supporting tower and antenna were lowered to the ground.

During this operation was the only time that I have been glad that I have only a 30-foot tower.

A close visual examination of the cable, connections to the driven element, and the elements and traps, revealed no cause of the trouble.

Continuity checks showed that there were no open trap coils. Since there was no coax cable available locally, I placed an order for 100 feet of cable.

Anticipating considerable elapsed time before my order would arrive, this was a

Anatomy of a Volunteer---Part I

By Larry Lazar, WA2AAD-HK3

For weeks we, my Peruvian driver and I, had been waiting for the road to Piscobamba to open. Like a hundred other roads it was blocked in dozens of points by landslides which were all triggered simultaneously in thousands of places at 3:24 PM, Sunday, May 31, 1970. That is the time and date of the infamous Peruvian Earthquake; it brought me, hundreds of doctors, nurses, engineers, pilots and other relief personnel from all parts of the globe to a devastated 40,000 square mile area known as the Departamento de Ancash.

During the cold nights spent in Ancash, I had plenty of time to reflect on what I was doing 5,000 miles from home.

I remembered I was in my apartment in the old and fashionable Brooklyn Heights section of New York City awaiting responses to my job resumes. For the previous three years I had held two concurrent jobs: one as part-time Residence Director and Proctor for a well known science and engineering university; and, the other as full-time Personnel Director of a young 100 man engineering and R&D firm. Three weeks before I had laid off 3/4 of the company's engineers and scientists and, after helping to place them with other companies, I wrote my own resume and resigned.

I still held my part-time position which meant not only managing the school's residences but also counseling the many soon-to-be engineers and scientists it housed. Continually I had to bridge the so-called "generation gap" between these college students, the university's administration and, of course, myself, an OM of 26!

My little world had consisted of not only recruiting nearly non-existent Air Pollution Specialists (and helping them move clear across the country with family and cherished possessions) but also solving problems of tuition, final exams, pot, the draft, graduate school, sex... (My private life included: Off-Broadway shows; studying for my Masters in Industrial Management; girl watching in coffee houses; Air

National Guard training sessions; baby-sitting for any one of six nephews; paying traffic violations; and ham radio.)

The point of the above paragraph is that for most hams, everywhere, amateur radio is a hobby amongst a myriad of activities. In the case of this young and busy New Yorker, there was no exception.

From the age of 14, I plied the hobby with alternating periods of activity and disenchantment. I made the transition from coffee-can 5 watt Novice transmitter to Heath HW 100; and, I oscillated between DX chasing and homebrewing, between pro and anti-ARRL groups. Late at night, I often was ragchewing with locals about the virtues of quads and yagis, about the disgracefulness of splatterers and deliberate QRMers. In short I considered myself a pretty average ham.

Being able to enjoy daytime skip is just about the only good thing about being unemployed. One fine and sunny June afternoon I found myself tuned to 21.425 KHz, the frequency of what I learned to be the International Peruvian Earthquake Net. Set up in Peru by Uda (OA4J), Bernie, (OA4ON), and the Catholic Information Center, (OA4CCF), and Stateside by Nat (W2AIM), Gerry (K4DI), the Colonel (K4OL), and Cliff (W1IM), the Net had grown to span practically the whole Western Hemisphere.

I was listening intently to the latest reports: the City of Huaraz lay in ruins; Yungay with its 20,000 inhabitants was buried by a mud avalanche; all roads blocked by landslides; and, military airlifts and reconnaissance flights were impeded by a massive dust cloud hanging over the earthquake zone.

I found it difficult to believe! Searching through the New York Times yielded no confirmation of the reports. I remained skeptical until I personally heard Brother Hilary, OA3H, describe how he dug his rig out from the rubble of his former shack and how he watched the rise of the dust cloud generated by the crumbling of the adobe homes of Huaraz.



Enough was heard to keep me glued to my rig. News began to trickle through the wire services, but the magnitude of the catastrophe was still only known by those monitoring 21.425. One evening (the net was running nearly round the clock) OA4CCF, operated by Father Daryll Hunt, Director of the Catholic Information Center, ordered SSB transceivers and walki-talkies for use in the earthquake zone. To this date, I do not know exactly what prompted me to ask him: "Do you have anyone to set up the emergency net?" His response was: "No, we are badly in need of someone." It took ten minutes to give my resume over the air and just four days to arrive in Lima.

An infinite number of details had to be arranged; my National Guard Commander's permission to leave the country; a leave of absence from the Dean of Students; passport, long-johns and sleeping bag; immunizations; power of attorney for my brother, etc., etc., The Primate and Cardinal of Peru secured a complimentary air passage for me and the 800 pounds of communications equipment I was to bring. Braniff Airlines worked overtime, and, by the evening of June 18, 1970, I was flying southward at 500 MPH, clutching my Spanish dictionary and browsing through a pamphlet on tropical diseases. In less than 10 hours, I was to be for the first time outside of the Continental U. S. and to begin a three month nomadic existence as "Padre Lorenzo".

WORLD QSL BUREAU

5200 Panama Ave. - Richmond, CA 94804 USA

Dear Radio Amateur: Here is how our bureau operates. Please keep this handy for future use.

WHAT WE DO

We distribute QSLs by a combination of direct, other bureaus, and clubs. The majority of QSLs are sorted, processed and mailed out within 48 hours of receipt. All QSLs are checked for possible QSL managers and are sent direct to such QSL managers with an SASE included for reply via the ARRL QSL Bureaus. We utilize every possible aid to operate the World QSL Bureau in an accurate and efficient manner, including the use of computers, postal stamping machines and mechanical equipment. We are presently handling more than 1,000,000 QSLs a year. Our goal is to handle all the QSLs in the world.

WHAT YOU DO

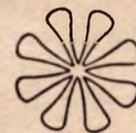
Send us all of your QSLs for anywhere in the world, including all intra-USA QSLs as well as QSLs for all foreign stations. The price is 5¢ each. Please arrange cards alphabetically. List call of station that QSL is for, only once. Do NOT include address of that station. Payment must accompany QSLs. U.S. cash preferred, but check, money order, stamps or IRCs accepted. We absolutely guarantee that your QSLs will be sent out as explained in the previous paragraph. If unable to forward, for any reason, your QSLs will be returned.

WANT TO HELP?

Many of our intra-USA QSLs are delivered via radio clubs. If you belong to a radio club, please send us a list of the calls of the club and the address to which we can send QSLs, in bulk. If you can act as QSL manager for us in your area, let the club(s) and us know about it. Please send us all your outgoing QSLs and urge everyone you know to do the same.

73 and 88

Lloyd Colvin, W6KG
Iris Colvin, W6DOD



IMPOSSIBLE? BARGAINS IN SURPLUS ELECTRONICS AND OPTICS

THIS MONTH'S SUPER SPECIAL!

CALCULATOR KIT



First announced in our January advertisements, the response to B & F's calculator kit can only be described as fantastic! We supply complete kit of everything (except a case) to build a professional calculator, for under \$100.00. Includes extra large scale integration MOS Chips for calculator functions, complete professional keyboard, all parts for clock and drivers, all

printed circuit boards, eight, seven segment readouts, power supply and complete step-by-step instructions.

Keyboard Functions: The input is organized to accept the following inputs: Numerals 0-9 plus decimal point - Constant Multiplier/Divisor Set - Decimal point Set - Clear - Clear Entry - Multiply - Divide - Sum and Execute - Subtract and Execute - Alternate Display - Equals.

Display Functions: The output is designed to produce the following output functions: Eight digit numerical display, in BCD code - Negative Sign Indication - Overflow Indication - Zero Suppression - all nonsignificant zeroes are suppressed.

Operational Description: The following descriptions apply for the designated calculator operations:

Figure Entry: Up to 16 digits - Up to seven decimal fraction digits - Entry of positive quantities only - Entry may be cleared without destroying intermediate results in accumulator - Decimal point.

Addition: Addition results accurate up to 16 digits - Overflow of 16th digit detected - Signed results possible during chained operations.

Subtraction: Subtraction results accurate up to 16 digits - Overflow of 16th digit detected - Signed results possible.

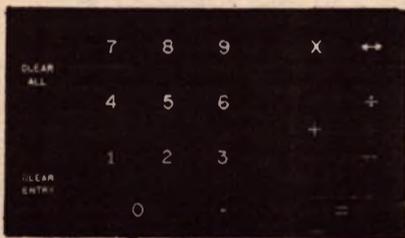
Multiplication: Product up to 16 digits with the eight most significant digits available for display. The least significant eight digits can be displayed on command of the Alternate Display key - Signed results possible in chained operations - Round off is not implemented (results truncated if necessary) - Solution time is 80 ms maximum at 200 KHz.

Division: Quotient up to 16 digits with eight most significant digits available for display. The least significant eight digits can be displayed on command of the Alternate Display key - Signed results possible in chained operations - Solution time is 120 ms maximum at 200 KHz.

General: Continued (chained) operation - capability is provided for continued multiplication, division, addition, and subtraction - Clear - all storage registers and display are cleared by command of the Clear Key. Decimal point position is not modified - Storage - the machine storage registers are dynamic shift registers - Overflow - overflow is indicated but overflow information is not saved. Further operation of keys (except "clear" or "clear entry") is inhibited - Electronic interlocking - electronic interlocking is provided which prevents erroneous operation due to simultaneous depression of two or more keys - Clear Entry - enables correction of a figure input error (and clears figure entry overflow condition).

- EALS16DCK, Sh. wt. 10 lbs. \$98.50
- Case (additional) 10.00
- Large scale integration MOS chips only 29.00

CALCULATOR KEYBOARD



We are offering the keyboard for our calculator separately. The keyboard provides a single closure for each key, brought out to an edge connector. May easily be matrixed or encoded in any fashion by external jumpers or used as is, depending on the input circuitry required. Brand New!

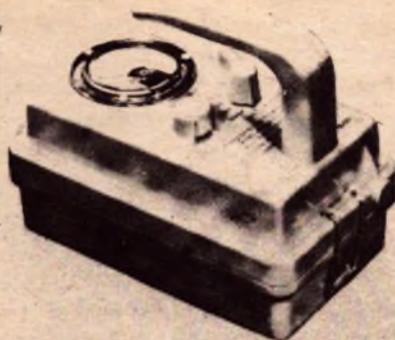
- Calculator keyboard \$14.50

BOOKS

Discounts on technical books are rare, since the publisher discounts are low, but B and F is happy to give you a 10% discount and postpaid delivery in the U.S. on what we feel are some of the best books in the electrical engineering field. They are:

- Alley and Atwood, *Semiconductor Devices and Circuits*, Wiley, 1971. Without relying on calculus, this book describes basic semiconductor devices and explains their use in electronic circuits. The operations and uses of linear and digital integrated circuits are given considerable coverage. List Price \$11.95, B & F Price \$10.75.
- Paul Siegal, *Understanding Digital Computers*, 2nd Edition, Wiley, 1971. A great introductory text for logic and computer design. We supply it as part of our logic experimenters kit. List \$12.95, B & F Price \$11.75
- Eimbinder, *Semiconductor Memories*, Wiley, 1971. List \$11.95 \$10.75
- Eimbinder, *Designing with Linear Integrated Circuits*, Wiley, 1969. List \$10.95 \$9.85
- Barna, *Operational Amplifiers*, Wiley, 1971. List \$9.95 \$8.95

RADIATION METER ("Geiger Counter")

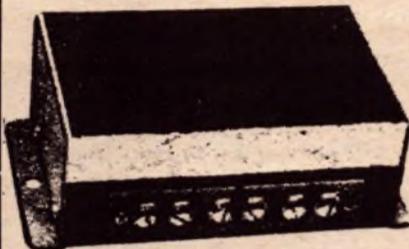


You can buy a complete radiation meter, complete with original instruction books, at less than the price of the meter movement alone. Range is 0.02 to 50 Roentgens/hour. This is not sensitive enough for prospecting, but useful for other radiation measuring and monitoring purposes. If not used for its original function, then the case,

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This supply delivers 12-14 volts D.C. at 1.2 amperes. Useful for hundreds of applications, use it to power projects, as a battery charger, for toy trains, you name it. At our low price you should order several to have around. No filtering

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lighting a florescent tube by just holding it near the supply. We supply the flyback transformer, two power transistors, resistors, instructions and an experiment manual. Use our 12 volt supply advertised on this page as a supply for this if you don't already have one.

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Add \$1.00 Postage & Handling
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SANKEN HYBRID AUDIO AMPLIFIERS AND SUPPLY KIT



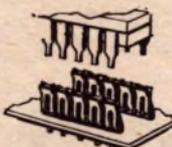
We have made a fortunate purchase of Sanken Audio Amplifier Hybrid Modules. With these you can build your own audio amplifiers at less than the price of discrete components. Just add a power supply, and a chassis to act as a heat sink. Brand new units, in original boxes, guaranteed by B and F, Sanken and the Sanken U.S. distributor. Available in three

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- 25 Watt RMS Amplifier \$14.75
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- Complete kit for 100 watt rms stereo amplifier (200 watt music) including two 50 watt Sanken hybrids, all parts, instructions, and nice 1/16" thick black anodized and punched chassis \$88.00
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Molex soldercon connections for I.C.'s. With these you can build low cost I.C. sockets by just cutting off the number of connections required, i.e., two strips of seven for 14 pin socket.

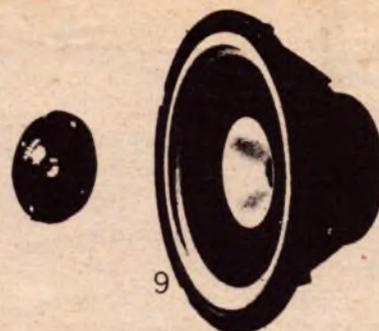
- 500 Molex soldercon \$ 4.75

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15 volts @ 100 milliamps. Brand new, 115 VAC input, manufactured by Analog Devices, similar to their model 902. List price \$49.00, our price \$32.50.

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A local manufacturer went out of the speaker enclosure business, and we were lucky enough to buy his inventory of Jensen high-compliance (acoustic suspension) speaker systems. These systems consist of a 12" extended range woofer, a hemispheric dome tweeter, plus crossover. The dome tweeter response extends into the supersonic.

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by
C.F. Rockey,
W9SCH

Although not a new thing by any means, a number of us have been devoting ourselves to what we call QRPP, -- under five watt Amateur Radio.

Many of us have become disturbed by the pathological proliferation of superpower, commercialized gear and alarmed by the electronic pollution that such thoughtless "overkill" has engendered throughout the world.

Particularly stimulated by the work of Dr. Adrian Weiss, K8EEG/1, and his little magazine, The Milliwatt, many of us believe we have experimentally demonstrated what mathematics has long predicted.

Only a few watts indeed are needed for practical and enjoyable communications.

For instance, just yesterday afternoon a student of mine successfully completed an eight hundred mile QSO without ever using more than fifty milliwatts input.

Using five watts input and a simple zepp antenna only twenty feet above Illinois dirt, I have worked twenty-three countries and dozens of states during the past two years. And this is "kid's stuff"; the real experts have trebled and quadrupled these results!

QRPP has proven to be such fun that my hundred watter is collecting dust in a corner of the shack. This has put new gusto in the game for me!

Of course, excellent QRPP equipment is available ready-made, from Ten-tec and others, but many of us find here the motivation for reviving that most-admirable of amateur arts, "home-brewing". There's education and genuine satisfaction in working someone far-away with a rig that you've built yourself.

Many of us build our own gear, both solid state and vacuum-tube, and the cost is tiny.

Perhaps the best-recognized yardstick for QRPP performance is measured in miles per watt. Just divide the geographic distance worked (If it exceeds one hundred miles, of course, anything less is just a travesty.) by the DC power input to the final stage, to evaluate your relative standing. One thousand miles per watt qualifies you as a bona-fide QRPP'er. The record is in the billions, I guess but a consistent per-

formance of two hundred miles per watt is respectable and within easy reach. (By the way, how does your 2-KW P.E.P. linear stand-up to this test?)

QRPP works on any band, and with any mode (Including, we're told, amateur TV.) but the majority of us find CW most convenient and practical. Look for us, we're looking for you!

Because QRPP requires those attributes: dedication, diligence, and personal skill, as are most respected by the gentleman sportsman, we like to call QRPP, "The sport of the gentlemanly amateur."

Now QRPP may not just be your bag. But think of the ill-will stirred-up throughout the world by the thoughtless use of the high-powered transmitter, particularly by us U.S. amateurs. Responsible travellers tell us that few crannies of this planet are unpolluted by the "big signal" of some Yank.

Intruders are always resented. Besides, there's an international law requiring the minimum power be used for effective communication always. And since when does "effective communication" require an S9 plus 40 DB signal (Unless the receiving operator is using galena and an oat-box tuner, which isn't common nowadays.)?

If every U.S. amateur reduced his power input by a factor of four, few DX contacts would be damaged, we feel, and the electronic image of our country would experience a new renaissance.

Rancho



Sordo Mudo

(deaf-mute)

by Hank Beisher, WB6TZQ

Way back in January, I found XE2YX calling CQ. We had a very nice QSO and I received an invitation to visit him.

Ed Everett, known as XE2YX, and his XYL, Margaret, own a ranch about twenty five miles northeast of Ensenada on Hiway 3 which is used as a home and school for deaf Mexican children.

A non-ham friend and I set out for Mexico during the last half of spring vacation from school. We arrived at Ed's in the late afternoon, just in time for dinner. We met his family and all the deaf children at dinner.

Besides five of his harmonics living there, he has 12 deaf children, ranging in age from 5 to 18, 3 of whom are girls.

After dinner, we got the tour of the ranch. Of the 500 acres, rocky hills take up about 400. He has a house, workshop and a dormitory, with another one under construction, and of course a chow hall.

This ranch is there because Ed feels that there is a need to train deaf people.

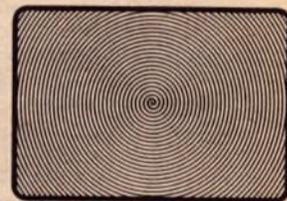
In Mexico, deaf people have a hard time making it without any schooling. The ranch is supported by donations from churches and other groups, most notably, hams.

We spent one-and-a-half days longer than planned, helping out, visiting Ensenada, and taking pictures. While we were there a reporter/photographer from the London Mirror showed up to do a story for his paper. The ranch has been written up in the L.A. Times and a story was also done in "Worldradio", the amateur radio paper. (see 27 Dec. 1971)

Ed's rig consists of a Swan 270B to a dipole for 40 & 80 and for 20 meters a 14 AVQ. Every time he operates is like Field Day, the only source of power is a generator. The Mexican government wants \$3,500 to run powerlines across the highway. He has access to poles, line, xfms, and the people to install it but unfortunately the government has its rules.

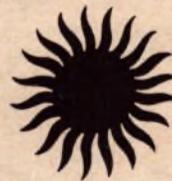
Ed can be found on the Taco Net, 3855 kHz at 1900 local. His signal at that time isn't the greatest but Q-5 if the QRM isn't too bad.

I hopefully will be going back to Rancho Sordo Mudo after school is out. The scenery is beautiful and the air is clean. There is a great deal of work to be done before September rolls around. He hopes to have a separate classroom by that time and twice as many kids as he has now. Besides he invited me to visit again and help out. (From Mt. Diablo ARC "Carrier")



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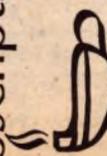
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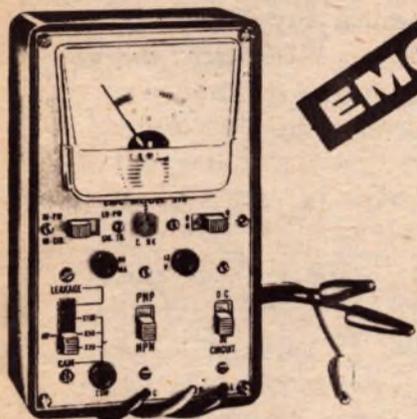


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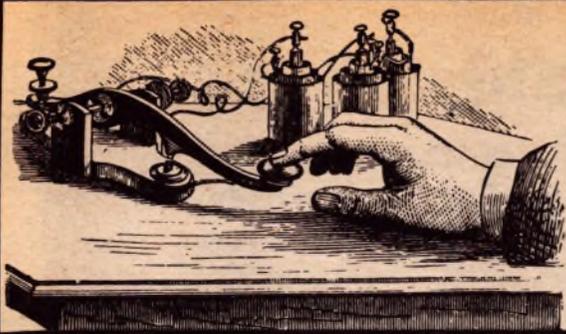
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REPORT TO THE READERS

This past month has been a very good one for your paper. Subscriptions have been coming in at a good rate and more of the perceptive advertisers are finding out that they can display their products before the most active amateurs on these pages.

Advertising is the very life blood of a publication. Without it you are one dead pigeon. Without results for them they, sensibly, will not remain. Please notice which, out of the 300 or so businesses in the field, of them are interested in "Worldradio".

A most touching thing, this past month, was the number of readers who, from the goodness of their heart, sent in "something for the kitty". The accompanying remarks really helped spur on the effort. Another help has been the number of gift subscriptions for both U.S. and overseas amateurs. Phil Pector, W9LDX, (living in Germany and travelling throughout Europe) seems to be engaged in a one-man effort to spread the concept of international friendship in Europe. Again, he unleashed a raft of gift subscriptions for European amateurs which met the postage bill of last month's issue for all the subscribers.

Speaking of gift subscriptions for the overseas hams, we are going to try something new. Such gifts from U.S. hams have proved to be a popular item and the gifts have made the new proposal possible. You have noticed that every publication charges more for foreign subscriptions. The reason is simple—the postage costs are much higher. Also, the papers must be placed in a wrapper (regulations) and stamps must be attached as our mail imprint is of no value overseas. All very time consuming and expensive.

A factor we have been considering is that our \$6 tariff represents, for the ham in many overseas countries, a sizeable portion of a day's wages. So, in an effort to make subscriptions more easily available for our overseas brother hams and to encourage more gift subscriptions from U.S. to overseas hams, we are lowering the price of non-U.S. subscriptions to \$4. We believe this will help increase the international flavor of the paper and result in some more interesting articles and pictures. Presently one out of every eight readers is an overseas ham and we have subscribers in 58 countries.

"Worldradio" was represented at the Fresno hamfest. A most enjoyable time was had. On hand were the "actives", the people who make things happen such as Claude Owens, WB6MDN; Max Meyer, WB6KOL; Les Lester, W6LHQ; Tom Eavenson, K5BWZ/6, etc. Overheard were Whit Whitley, K6PKC, of Swan, and Fred Deeg, K6AEH, with Standard, telling each other the qualities of their own particular line of 2 meter FM gear.

Of great interest was the program presented by Dr. Michael Gauthier, K6ICS, and his brother, Barrie, K6ICQ. They showed color slides of the road races in Mexico for which amateurs furnish communications from the various checkpoints. The joy of it is that not only is it a public service but also an exciting time for the volunteer operators. Ray Hauck, K6QPE, and the others who have been there before are certainly enthusiastic about participation in the event. Mike is looking for more operators for the Baja 500 to be held 7 through 9 June, a chance to be under clear blue skies (remember them?) If interested, contact K6ICS. Mike was also most generous with prizes at the dinner from his firm.

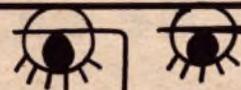
A hamfest, even more than exhibits and prizes, is people. And they certainly were at Fresno. It was nice to meet Milt Bramer, W6DKQ, and the warmth of an event is certainly enhanced by the charm and grace of Harriet Amborn, W6DOY. We certainly wish we could have spent more time individually with the many good people, but there were so many there!

Did get to chat with our fellow Armenians: Ralph Saroyan, W6JPU, who was honored at the dinner for having spent 16 years as SCM, far longer than anyone in the Pacific Division, and Berge Bulbulian, WB6OSH. Berge has been active in a sister city program with Torreon, Mexico. He was telling attendees about the FM:West Conference to be held in Fresno on June 3. You can rest assured that any event with Berge as ramrod will be well executed.

Viekko West, K6ORP, was telling people about the Greater Bay Area Hamfest and ARRL Pacific Division Convention to be held October 14 and 15 in San Mateo. While yet five months away, Viekko already has a program put together that looks like a three-ring circus, it is jam packed with items covering every interest.

"Worldradio" will be at both, FM:West, and the Greater Bay Area Hamfest, we hope to meet our friends, the wonderful people who make this paper possible.

Armond, WB6AUH



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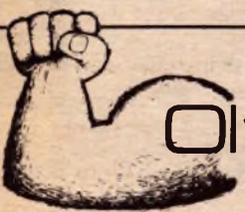
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Moona, SU1MI, with her OM Dr. Mohd Taher, at her 14 MHz cw station

Moona Taher, SU1MI, Egypt's only XYL operator (and daughter of Ibrahim Mohamed, SU1IM) is a bachelor in dental surgery and busy as a dentist at the Government Hospital of the Cairo El Azher University, where her OM is a lecturer in dental surgery. Married for three years, they have a six month old daughter. Moona has been licensed since early 1972 and is active on 14, 050 kHz cw. She is looking forward to operating on SSB.

(Information courtesy of Ursela Dieckman, DL8DU, de Alfred Muller, DL1FL.)



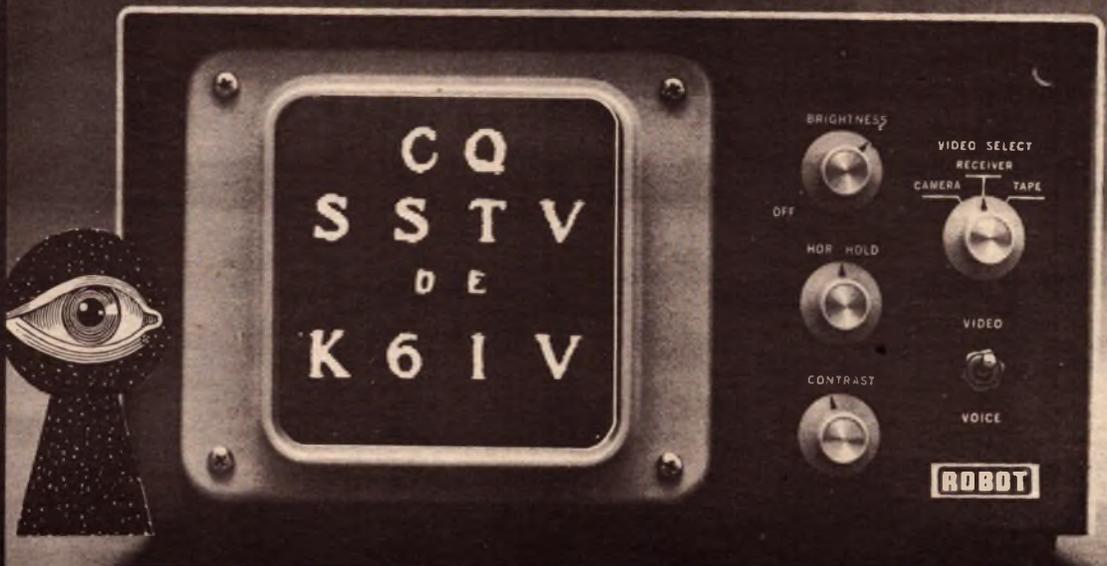
Olympics: DL

OLYMPIC GAMES VISITOR LICENSES:
To simplify the granting procedures for German short-term licenses during the Olympic games, visiting foreign radio amateurs may simply show their home license at the local telecommunications authorities in Munich or Kiel. Between June 1 and September 30, 1972, visitor licenses will be granted free of charge and the assigned calls are of the type W1RW/DL. The Oberpostdirektion (OPD) offices are: OPD Munchen, Dienststelle 25-1, Arnulfstrasse 60, Munchen, and OPD Kiel, Dienststelle 25/26-2, Stresemannplatz, Kiel, Federal Republic of Germany. Office hours are 0800-1200 and 1400-1600 Mondays through Fridays.

During the games, radio amateurs of the Munich VFDB will run a special event station in the building of said OPD, which will be open for operation by visiting radio amateurs.

(de Alfred Muller, DL1FL, International Liason Officer, Deutscher Amateur Radio Club)

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Articles on: the role Amateur Radio played in rescue operations after the Peru earthquake (by Natan Sterental, OA4OS)-the travels of Kenny Mahoney, K6OPG, three months around the world and the amateurs he met-and much, much more. Then the July issue will be our one year anniversary issue and we are planning a "spectacular"

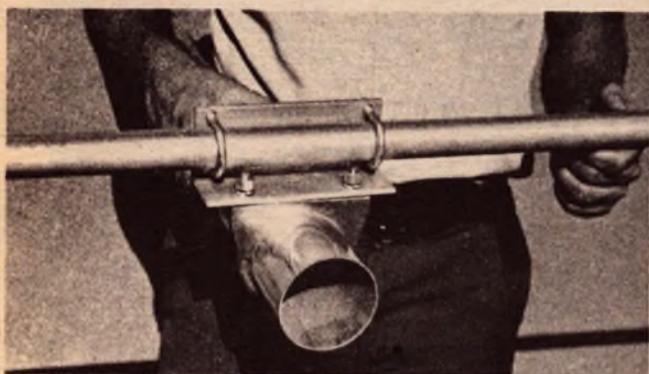
Dockets Finalized

RAMS News (Sacramento, Calif.) reports the following:

On April 28 a member of the Ladd Pioneer Radio Club (San Francisco) worked W4BW, A. Prose Walker, Chief of the Amateur and Citizens Division of the FCC, with some interesting information exchanged.

A final Report and Order on Docket 18803 (repeaters) will be released in three or four weeks, this will be followed by 19162 (phone band expansion) and then 19245 (Eyebank net) which will spell out allowable third party traffic.

After the dust is settled, a new docket will be sent out for comment giving each license class a different prefix.



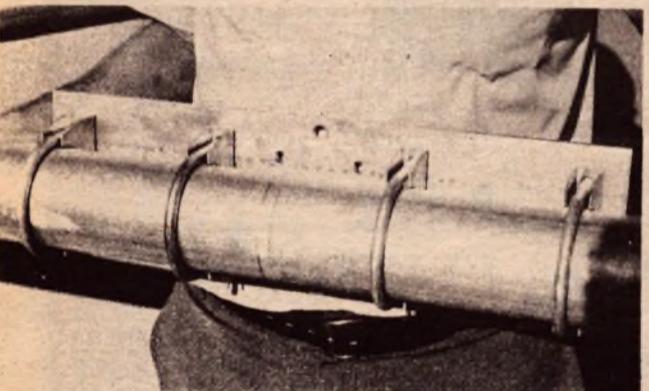
Our 20, 15 and 10 meter element to boom clamps are constructed of thick wall aluminum angle. With our unique clamps there are no holes drilled in the element. All hardware plated.

All 20, 15 and 10 meter beam elements are constructed of the finest aluminum available, 6063-T832 a top quality alloy. All tubing is seamless extruded hard drawn.



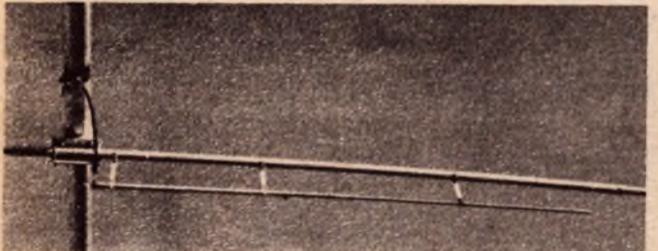
Our 40 meter element to boom clamps are constructed of aluminum bar plate 1/4" thick, 5" by 18" long. The element is secured with 6 ft. coupler and 4 full circle clamps to the mounting plate. Two 3" full circle clamps secure plate to boom.

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



All our beams have a boom to mast plate of 1/4" to 3/8" thick aluminum secured to the boom and mast with plated full circle clamps. All booms 30 ft. or more use two sections of boom secured with a heavy wall boom coupler, the boom can be tilted on booms 30 ft. or longer.

A 20 meter element consists of a 12 ft. section of 1 1/8" OD .058 wall center section, two six ft. pieces of 1" OD .049 wall middle section, and two six ft. pieces of 7/8" OD .049 wall end sections. Reflector has two additional 2 ft. end sections of 3/4" OD .035 wall. 15 meter elements use 1 1/8" and 1" tubing. 10 meter elements use 1" and 7/8" tubing.



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3 ELE. 40 METER BEAM

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

2 ELE. 40 METER BEAM

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

7 ELE. 20 METER BEAM

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

6 ELE. 20 METER BEAM

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

5 ELE. 20 METER BEAM

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

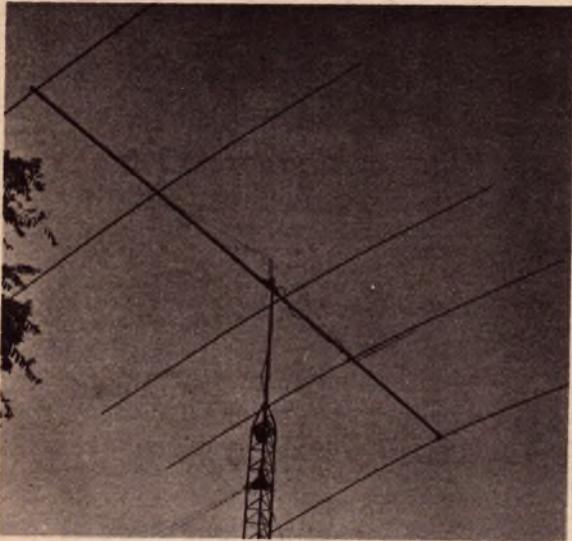
4 ELE. 20 METER BEAM

GAIN	10DB
FRONT TO BACK RATIO	25DB
BOOM LENGTH	30 FT.
MAX. ELE. LENGTH	36 FT.
SWR	1.1 TO 1
WIND SURFACE AREA	8.0 SQ. FT.
WIND LOAD (80 MPH)	195 LBS.
WIND SURVIVAL	100 MPH
TURNING RADIUS	21.5 FT.
NET WEIGHT ASSEMBLED	41 LBS.

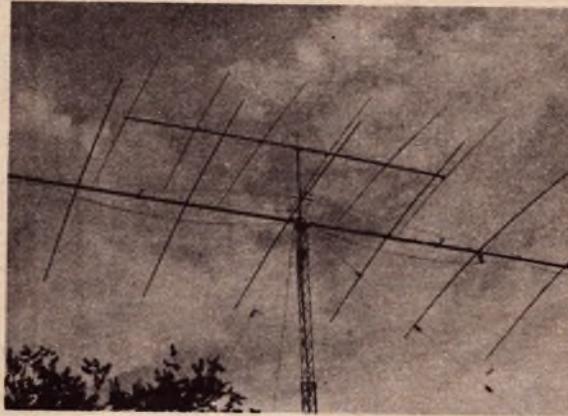
3 ELE. 20 METER BEAM

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

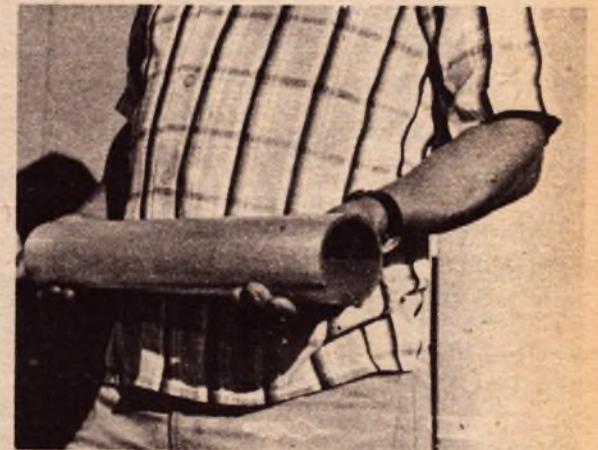
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W7CVD's 5 ELE. M520



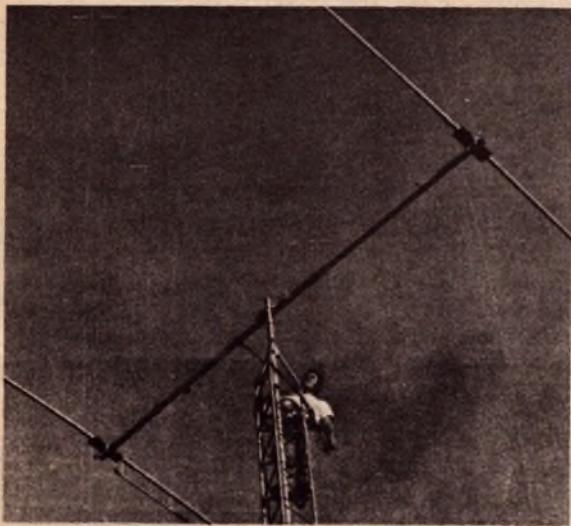
W7GVA's 7 ELE. M720 AND 6 ELE. M615



MACHINED 18" BOOM COUPLER FOR 30 TO 40 FT. .065 WALL BOOMS

WIDE SPACED 40, 20, 15 AND 10 METER MONO AND DUO BAND BEAMS

Designed for years of maintenance free operation by using top grade heavy aluminum construction 6063-T832, 6063-T6 and 6061-T6.



40 METER 2 ELE. BEAM

NEW IMPROVED WIDE SPACED 40, 20, 15 & 10 METER BEAMS

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All our beams come complete with adjustable reactance tuned gamma match network which can handle 4 KW plus on CW and SSB.

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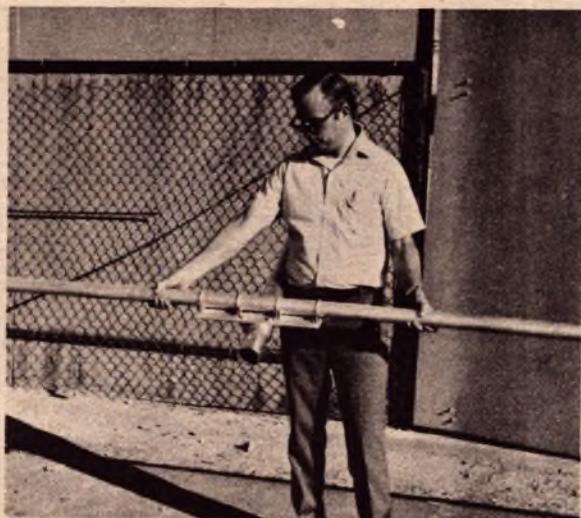
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WILSON MONO BAND BEAMS	
Model No.	
M340	3 ELE. 40 METER BEAM (full size) Gain 8.5 DB. Boom length 38.5 ft. 3" OD .200 wall to .065 wall. \$375.00
M240	2 ELE. 40 METER BEAM (full size) Gain 5.5 DB. Boom length 16 ft. 3" OD .065 wall. \$189.95
M720	7 ELE. 20 METER BEAM Gain 14 DB. Boom length 58.5 ft. 3" OD .200 wall to .065 wall. \$389.95
M620	6 ELE. 20 METER BEAM Gain 13 DB. Boom length 50 ft. 3" OD .200 wall to .065 wall. \$299.95
M520	5 ELE. 20 METER BEAM Gain 12 DB. Boom length 40 ft. 3" OD .065 wall. \$169.95
M420	4 ELE. 20 METER BEAM Gain 10 DB. Boom length 30 ft. 3" OD .065 wall. \$139.95
M320	3 ELE. 20 METER BEAM Gain 8.5 DB. Boom length 20 ft. 3" OD .050 wall. \$ 89.95
M715	7 ELE. 15 METER BEAM Gain 14 DB. Boom length 40 ft. 3" OD .065 wall. \$169.95
M615	6 ELE. 15 METER BEAM Gain 13 DB. Boom length 32 ft. 3" OD .065 wall. \$139.95
M415	4 ELE. 15 METER BEAM Gain 10 DB. Boom length 20 ft. 3" OD .065 wall. \$ 89.95
M810	8 ELE. 10 METER BEAM Gain 14.5 DB. Boom length 40 ft. 3" .065 wall. \$169.95
M510	5 ELE. 10 METER BEAM Gain 12 DB. Boom length 20 ft. 3" .065 wall. \$ 89.95

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DB54	5 ELE. 20 & 4 ELE. 15 INTERLACED BEAM Gain 12 DB—20 10 DB—15. Boom length 40 ft. 3" OD .065 wall. \$229.95
DB43	4 ELE. 20 & 3 ELE. 15 INTERLACED BEAM Gain 10 DB—20 8.5 DB—15. Boom length 30 ft. 3" OD .065 wall. \$179.95
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40 METER ELEMENT

No frills, no gimmicks, just top quality, heavy duty, full size beams at lower prices than any other manufacturer.



Travels with Darleen

Orleans and travels all over the world on business, dealing mostly in agricultural products, feed concentrates for poultry and cattle, and other related chemicals and even, popcorn!

Weather here in Lima has been summer-like with highs in the high 70's and low 80's and humid at times but comfortable in the evenings. Natan said he will write a comprehensive article for WORLD-RADIO on the role Amateur Radio played during the Peruvian earthquake disaster. He will send lots of pictures and thought the May issue would be a good time to run it as that is the second anniversary of the earthquake.

Natan and his family are very warm, personable people and make you feel at home immediately. He has a textile factory (wool) and they make blankets, etc. Natan has arranged an interview with USIS for me to tell them about my good will trip via Amateur Radio.

I think the first person to have worked me on all continents was Ray McClure, W8CNL, in Battle Creek, Michigan, now there are several others so I will have to think of something rather novel for the WAC Darleen award.

Carl, VQ9R, and his XYL, Amy, plan to be in California during the third or fourth week in March and I have invited them to Sacramento. He works in the Seychelles Islands in the Indian Ocean but holds a W8 Call.

Friday, February 4th

Natan drove me to the airport on his way to work so I could catch my Fawcett Jet Flight 215 to Cuzco. I arrived at Cuzco at about 10:30 a.m. after a most beautiful flight over the Andes with many snow-capped mountains. Cuzco is located 730 miles from Lima at an elevation of about 10,800 feet above sea level which is quite a change from Lima which is only about a few hundred feet above sea level.

I followed the instructions which Natan and Becky gave me explicitly; namely, to take an hour's siesta after arrival at my hotel; eat a light lunch; a short siesta after lunch before commencing on a sightseeing tour in the afternoon.

Cuzco was itself once capital of a great empire. The very name Cuzco comes from the Quechua word "Qosqo", meaning "navel", indicating that Cuzco was the center of Tahuantinsuyo, the Inca Empire. The Spanish arrived in the city in 1533. The buildings in Cuzco are Inca, Spanish or interesting combinations of the two. The church of Santo Domingo, of Spanish construction, has been built over the walls of

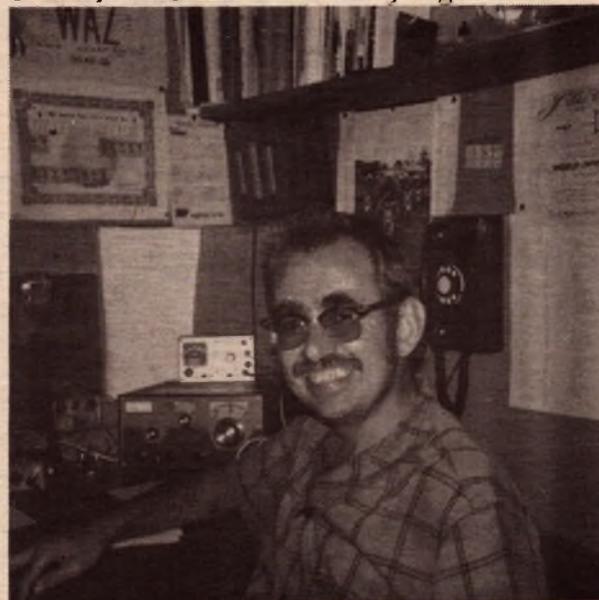


Natan, OA4OS, and Becky, OA4AJ, Sterental

Natan and his wife had invited him to join us for dinner and we went to a lovely restaurant specializing in seafood. After dinner we went to the Radio Club. What an unbelievable radio club - about 45,000 square feet, they have their own recreation rooms, club station, QSL bureau, meeting rooms, ladies TV room, dining room, kitchen and bar.

Thursday, February 3rd

Took it easy today. Picked up my tickets, vouchers for a trip to Cuzco, Machu Picchu, Pisac Village. Will leave Friday, Feb. 4th and return to Lima on Monday, Feb. 7th. On Wednesday, Feb. 9th will fly to Pucallpa and visit with Paul Wyse, OA8V, who lives in the jungle and



Paul Wyse, OA8V

works for the Wycliffe Bible Translators. Will return to Lima on Saturday, Feb. 12th, that night Natan and his family are having a ham radio get together in my honor.



Darleen Souligny, WA6FSC, (left) and Ann Carnett, TG9KE

(Over the past year Darleen Souligny, WA6FSC, has travelled, operated and met people on every continent.)

Continued from last month's issue

Lima, Peru

Wednesday, February 2nd

7:15 a.m. -- sure was a short night! Got on the Southeast Asia Net for the first time in many months and Father Moran, 9N1MM, was Net Control and I got to talk to Carl Reder, VQ9R, who is a very good friend of mine and I guess we had about a 45 minute QSO under favorable band conditions. I stayed on the air until about 9 a.m. and then had breakfast and chatted with Ed. Took a short siesta and Natan's youngest daughter, Lily, took us on a sightseeing tour of downtown Lima, the Cathedral, public buildings and we returned home for lunch.

In the afternoon, Esther, OA4NCS, Natan's and Becky's oldest daughter



Esther Sterental, OA4NCS

took us on a tour of a private museum depicting the historical life, pottery, jewelry, and culture of the various people who have inhabited Peru over the past centuries. Shortly after our return home, Cliff Ryan, WA5WEY, Vice-President and Technical Director of J.T. Gibbons, Inc., came by for an eye-ball QSO. It was a great pleasure to meet him after our many contacts. He is from New

...and the people she meets



Coricancha, the great Inca Temple of the Sun. The palace of Inca Wiracocha, Kiswarkancha, forms the foundation for the construction of the Cathedral. We visited the greatest of the Incan fortresses, Sacsayhuaman. This fortification was built on three levels, with three entrances on each level. There is a system of bastions that once circled the entire hill. It was built to protect the city from enemy attacks. Stones were brought from quarries over a mile away. These gigantic blocks, some estimated to weigh over 500 tons were fitted together so perfectly that a knife point can not be inserted between.

Then we visited Tambomachay, known as the "Inca's bath", it is thought to have been a summer palace for one of the emperors. It is about five miles from Cuzco and is the only site in the region where water still runs in the ancient aqueducts. I found the people to be most friendly and helpful. I also saw my first llamas on the side of the road.

The children were exceedingly friendly and colorful in their costumes and also some in very ragged clothing, in fact, one child had trousers which consisted only of patches, none of the original was in evidence, but they seem very well adjusted despite their evident poverty. Returned to the hotel late in the afternoon, ate a corvina bass dinner at about 7:30 and retired early since tomorrow would be a long day.

Saturday, February 5th

The telephone awakened me at 5:30 so I got up and in my half-asleep condition managed to get to the dining room to partake of a continental breakfast before leaving for the Cuzco train station at 6:30.

Left Cuzco for Machu Picchu by railcar and it was a most fascinating journey of about three hours going down from the altitude of Cuzco of about 11,000 feet to about 6,000 feet as Machu Picchu is located in the high jungle. There is no highway to this area. We passed along many fields and small villages and the change of scenery from the highlands to the low valley was spectacular.

Machupicchu is 70 miles from Cuzco. About 11:00 a.m. we arrived at the railroad station and were met by a number of small mini-buses. From the railroad station at the bottom of the valley, one must climb 1,500 feet to the ruins. The 20 minute bus ride climbs a hill so steep that the road had to be built with 13

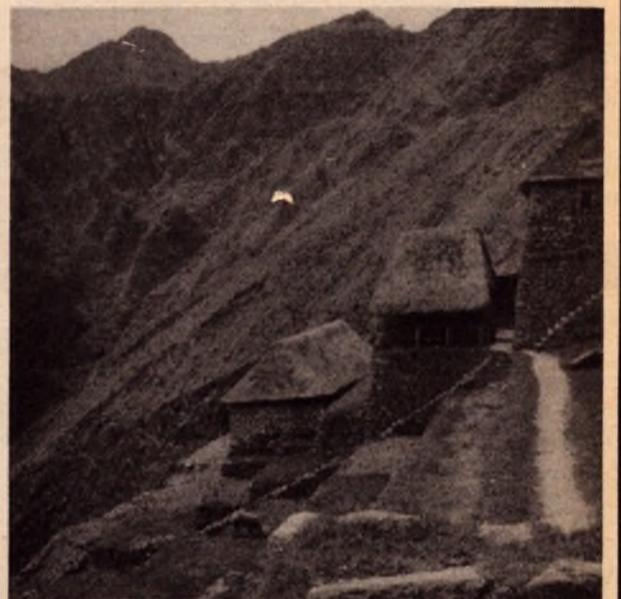
hairpin turns. This road was cut out of the rock when it was constructed in 1948. Finally, we arrived at the small tourist hotel at the top of the hill and then proceeded by foot to the ruins. It was like stepping many centuries into the past and makes you realize how advanced the Inca culture must have been.

The lost city is surrounded by 1,000 foot precipices and was never discovered by the Spanish. Because it was so well hidden it was chosen as a sanctuary for nobles, priests and the virgins of the Sun. It is surrounded by snow-capped mountains. The art of farming on terraces was developed to a remarkable degree and the slope of the hillsides determined the width and height of the terraces. Hundreds of these terraces were built to provide the city with food such as potatoes, corn, beans, tomatoes, sweet potatoes, and other crops. A small channel brought the needed water supply along the terraces.

The citadel of Machupicchu is located in the most inaccessible part of the grand canyon of the Urumbamba River. The altitude is 8,000 feet above sea level and 1,500 feet above the river bed. These ruins were discovered by Yale professor Hiram Bingham on July 24, 1911. Bingham was the head of an expedition for the National Geographic and was searching for lost Incan cities. After five months of fruitless search, he met an Indian, Melchor Arteaga, who told him of a lost city between the mountains of Machupicchu and Huaynapicchu. The Indian led Bingham to the ruins.

The film "Secret of the Incas" starring Charlton Heston was filmed on location here. There are more than 200 buildings including baths, temples, altars and houses, all connected by endless stairways. All of the construction is of granite blocks put together with such skill that a knife blade can not pass between them. As in all Inca constructions, no mortar was used.

There were many other visitors on this day including many from Germany, some from Argentina, Spain, Ireland, England, Canada and the U.S. We were very fortunate in having magnificent weather as it is quite common to have rain here. I really went mad taking pictures. You just can't imagine the beauty of this area until you see it and it is a must on any tourist's itinerary in Peru. Thanks to the Sterental's helpfulness, all of the arrangements were made for this wonderful trip. The



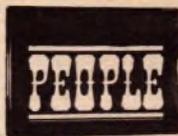
train was about 1 1/2 hours late in leaving and we did not arrive back in Cuzco until nearly 8:00 p.m.

After changing clothes at the hotel, had a lovely steak dinner, and then went with a local teacher to some of the local places. I was amazed at what young ages the local girls date. Much of the music was typical of the same types which you would find in the U.S. and the same types of dances also prevailed. The teacher who showed me around had met many of the movie stars who came to film "The Secret of the Incas" and so I am looking forward to seeing this film when it is repeated again. Went back to the hotel and I dropped into bed exhausted.

(Continued next month)



Carl Reder, VQ9R



Seychelles Is.

"I like to spend the time of day, not just 5x9, goodbye." - QSLing is a vital part of Amateur Radio, especially in a DX location." - Amateur Radio is a great fraternity, nothing else like it in the world." - Such were the comments of Carl Reder, WB8JDR, better known as VQ9R, when he was interviewed at the "Worldradio" office.

Carl, a Maintenance Support Specialist with Pan American Airways, presently at Station 89, Mahe, Seychelles Islands, Satellite Facility Control, U.S. Air Force, passed through Sacramento while on his vacation.

Mahe, the largest of the 92 island chain, is one thousand miles off the east coast of Africa at 52 degrees East and 4 degrees South. There is 140 inches of rain a year but the rainfalls are of short duration.

Like many radio amateurs, Carl is quite an international traveller. Born in Pittsburgh, Pa., his first glimpse of the rest of the world was with the USMC when as an aviation machinist (F4U-F6F-TBF) he was sent to Okinawa and Saipan. During repatriations he was stationed at Tsingtao, China, (a seacoast city on Shantung Peninsula, built by the Germans) where he learned enough Mandarin to be an interpreter.

Working with Philco as a Tech Rep in the field of ground power generators and power distribution he spent 1953 in Japan. He became fluent in Japanese. While traveling he has seen Japanese nationals in a restaurant and struck up conversations bringing a great deal of joy to the tourists who weren't familiar with the local tongue nor were the locals familiar with theirs.

Carl spent 1954 in Korea working on mobile radar installations and then there was another stop on Okinawa. He returned to the U.S. working at Selfridge AFB and Vandenburg AFB.

In 1963 he went to Mahe where in 1965 he met and married his wife, Amy. The Seychelles were a French possession for many years until becoming a British colony in the late 1700's. The children of the island are educated by Swiss and Canadian teaching brothers. There are about 45,000 natives. Employed at the tracking station are 150 U.S. civilians and 3 military. Carl has been there longer than any American.

As for his reasons for spending the last nine years at that remote location Carl mentioned the remoteness, wonderful climate and the beautiful group of islands. The average temperature is 85 degrees. Carl has a 25-foot sailboat and likes to fish for yellowfin tuna, bonita and carrangue. He likes the "easy living".

Once a year he gets a 35 day vacation plus 10 days travel time. In 1968 he went on a world tour seeing 22 countries in five weeks. Last year he visited South Africa, Zambia and Kenya.

Carl is the only American on Mahe who has learned to speak "Creole", an embellished pidgin French spoken by the natives.

He explains that he gets along very well with the local people.

During the 1971 Boy Scout Jamboree local Scouts went to his shack and were put in contact with Scouts at the shack of Father Moran, 9N1MM, in Nepal. The boys in Mahe told the lads in Nepal that the Seychelles were the "pearls of the Indian Ocean" where upon the Scouts on the other end told that Nepal is "the diamond of the Himalayas." The rig of VQ9R also furnished contacts with Scouts in Australia and to Kenya through the efforts of Jimmie Kean, 5Z4KZ.

Carl says he was interested in Amateur Radio for many years but it wasn't until the 11th of June '71 that he was licensed. He tells that since then there have only been three or four days that he hasn't been on the air. He related that Darleen Souligny, WA6FSC, was a big influence on him as he would listen to her to observe good operating practices. As to getting the license, his approach was to buy a rig from William Lane, VQ9L, so he could tell himself that since he had spent the money for a rig he had best buckle down and work for a license.

His station is a Swan 500C, a homebrew quad at 35 ft., a three element yagi at 68 ft., a one-element delta loop for 40 meters and an inverted V for 80 meters. Carl has worked W6CN on 80 cw.

The country total for VQ9R (as of 25 March) was 180 worked with 121 confirmed. As for QSLing Carl says, "I like to make sure they go out, I'm conscientious about that, even though it seems to be taking up more and more of my time. I've received offers from QSL managers but I don't like the idea of somebody else doing my work, and it seems to take away the personal touch." Carl also reported that he very much enjoyed working Novices on 15 meters and that he had received some "beautiful" letters from Novices.

Carl calls Amateur Radio "Fabulous" and said his interest in it continues to heighten. He said it is "quite valuable to someone in an isolated area as you are never without someone to talk to." He also says, I've come to have quite a few very good friends, feel very close to them, even though we have never met in person." He may soon get to see his world-wide chums as he is becoming very interested in SSTV.

His recent trip to the U.S. (his first since he was licensed) also "heightened my interest in Amateur Radio, through meeting several hams." Carl visited with Eugene Walsh, K2KUR; David Donnelly, WB2SQN; Richard Dingman, WA6BXC; and was the guest of honor at a dinner put on for him by the DXers in Sacramento, California.

Carl enjoys getting in the pileups, works in the Commonwealth Net and the Southeast Asia Net. He relates that Mahe enjoys good reception as there are no man made noises and he advises the best time for 6s



Amy Reder (l.), with Darleen Souligny, WA6-FSC, in front of the State Capitol in Sacramento, Calif.



Carl, VQ9R, at the "Worldradio" Staff ARC Club Station, WB6QHL.

to reach him is 1500-1600 Z short path.

As for what it's like to be on the other side of the pond he tells, "I hear operators call me five times and then give their call once, I know my call, it's their call I need. If I can get two letters of their call I'll stick with them until we make it." As for the use of speech compressors, Carl has a strong opinion, "They get out but you can't hear what they're saying."

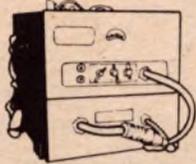
Carl also has philosophical opinions regarding Amateur Radio generally. He says, "I must contribute something, this is the type of hobby that everyone should try to contribute something to. Surprising, there are a great number that don't, that have a negative attitude."

One is moved to comment that Carl certainly has a positive attitude and a more friendly, warm, outgoing, guy you'll never meet. It was quite a day here at "Worldradio" with Carl; his wife, Amy; Darleen, WA6FSC, (here between jaunts); Paul Schuett, WA6CPP, who had come up from Lodi; and Al Maston, W6JYQ, were making it seem like a miniature hamfest.

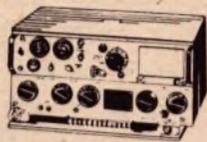
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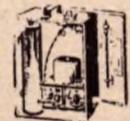
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Quart Bottle, each..... **\$1.25**
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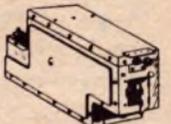
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T-23 TRANSMITTER with tubes and crystals. Brand New in Original Carton.... **\$23.50**
MD-7 MODULATOR with tubes, Excellent Used **\$10.50**
Set of Plugs for MD-7..... \$ 8.50



BC-733 RECEIVER Receives radio signals being transmitted by US satellite on approx. 108 Mc. AM, crystal-controlled on 6 preset freqs. in 108.3 to 110.3 Mc range. Operates on 12/24 V DC & 220 VDC 80 Ma. Complete with 10 tubes. Can be converted to FM Receiver
80 to 108 Mc. Exc.Used..... **\$5.95**
BC-732A Control Box for above, NEW... 1.75



B-10A TRANSVERTER 28V DC
Made by Aircraft Radio Corp. Couples UHF Antenna to VHF transmitter and VHF receiver. Uses 6 tubes: 4/5763 and 2/6201. Includes 8 crystals ranging from 233.8 Mc to 257.8 Mc. Size: 11x 4-1/2x4-5/8". Wt 5-1/2 lbs.
LIKE NEW, with tubes and crystals. \$9.95



TERMS: F.O.B. NYC. 25% deposit with order, balance COD or remittance in full. MINIMUM ORDER \$5.00. Subject to prior sale and price change

G&G RADIO ELECTRONICS COMPANY

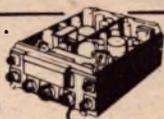
45-5 Warren St., (2nd Fl) New York, N.Y. 10007 Ph. 212-267-4605

SCR-625 ARMY MINE DETECTOR

Locates any metal buried approx. 2-ft in the ground or even water. Easily operated: varying intensity of 1000 cycle tone alerts user to buried metal mass. 64-page technical manual included. Batteries not included: 2 BA-30 flashlight cells & 1 BA-38.
OUR SPECIAL PRICE **\$44.50**



BC-645 TRANSCEIVER 15 tubes, 435 to 500 Mc. Easily adapted for 2 way voice or code on Ham, Mobile, Television Experimental, and Citizens Bands. With tubes, less power supply in factory carton, BRAND NEW..... **\$16.95**



TRANSMITTER has 4 tubes: WE-316A, 2-6F6, 7F7
RECEIVER has 11 tubes: 2-955, 4-7H7, 2-7E6, 3-7F7
RECEIVER I.F.: 40 Megacycles
SIZE: 10-1/2" x 13-1/2" x 4-1/2". Shpg wt 25 lbs.

SPECIAL PACKAGE OFFER: BC-645 Transceiver, Dynamotor and all accessories, including mounting, UHF Antenna Assemblies, control box, complete set of connectors and plugs.
Brand New **\$26.95**

HEADSET Low impedance. With large chamois ear cushions. 4-ft cord and plug. Reg. \$12.50. Our Special Price **\$2.95**
Less ear cushions..... \$1.95
High impedance adaptor for above... \$.69



SCR-274-N, ARC-5 COMMAND SET HQ!

Freq. Range	Type	Exc. Used	Like New	BRAND NEW
RECEIVERS.	Complete with Tubes			
190 - 550 Kc	BC-453	\$16.95	\$23.50	\$27.50
6 - 9.1 Mc	BC-455	---	---	\$22.50
1.5 - 3 Mc	R-25	---	\$19.50	\$21.50
TRANSMITTERS.	Complete with Tubes			
4 - 5.3 Mc	BC-457	\$8.95	---	\$11.95
5.3 - 7 Mc	BC-458	\$8.95	---	\$11.95

TG-34A CODE KEYS, self-contained, automatic, reproduces code practice signals from paper tape. 5 to 12 WPM Built-in speaker. Brand new with tech manual. takeup reel and AC line cord. **\$24.50**
Code practice tapes for above P.U.R.



BC-1206-C RECEIVER Aircraft Beacon Receiver 200 to 400 Kc. Operates from 24V DC 1.5A. Continuous tuning, vol control, on-off switch and phone jack. Very sensitive. Compact.
Complete with tubes, NEW..... **\$12.50**



BC-604 FM TRANSMITTER 20 to 27.9 Mc. Output approx 30 watts. 10 crystal controlled channels. Complete with tubes.
NEW..... **\$12.50**



ARC-R11A Modern Q-5 Receiver 190 - 550 Khz **\$10.95**
ARC-R22 540 - 1600 Khz Receiver with tuning graph **\$15.95**
R-4/ARR-2 Receiver 234-258 Mhz, 11 tubes, NEW **\$8.95**

BC-605 INTERPHONE AMPLIFIER, NEW \$3.45 EXC. USED.... **\$1.95**
TELEPHONE HANDSET, W.E. type..... **LIKE NEW \$2.95**
SCR-522 TRANSMITTER-RECEIVER, with 18 tubes, LIKE NEW **\$32.50**

AM-300/AIC PUSH/PULL AMPLIFIER
4-tube PP power amplifier with dynamotor, works on 28 VDC. Automatic gain control.
Shpg wt 15 lbs. LIKE NEW..... **\$3.95**



DUAL AMPLIFIER has two input circuits each feeding a single 6SN7GT twin triode amplifier. Complete with 115V 60 cy. power supply using 6X5GT rectifier. NEW..... **\$5.95**



IP-69A/ALA-2 INDICATOR 3" scope. Front panel controls: Vertical Pos.; horizontal pos. intensity, focus, gain, width, center freq. Pan. Operates on 115 V 380 to 1000 cps.
Complete with tubes. LIKE NEW..... **\$27.50**



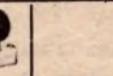
TG-5B TELEGRAPH SET for code communications or code practice. Portable, with hinged lid. Two or more units operate up to 25 miles apart. Bell call system, 1000 cycle howler, key, headpiece, canvas case, book.
Size 5-1/2x5-1/2x10". NEW..... **\$8.95**



TELEPHONE TYPE RELAY
Made by J.H. Bunnell, has adjustable sensitivity. 150 ohm coll. NEW..... **\$3.45**



DM-34 DYNAMOTOR Input 14 VDC 2.8 Amps. Output: 220 VDC 80 Ma. Size 3" x 4-1/2" x 6-1/4". Wt. 5 lbs. NEW..... **\$4.45**



BC-223AX TRANSMITTER 25 Watt, CW, MCW, Voice, Crystal control on 4 pre-selected channels, range 2000 to 5200 Kc by use of 3 plugin units, included. Complete.
BRAND NEW..... **\$27.50**



APN-1 FM TRANSCEIVER 400-450 Mc. Freq. modulated by moving coil transducer. Easily converted for radio control or 70 cms. Complete with 14 tubes, dyn.
BRAND NEW..... **\$9.95**



AM-26/AIC PHASE INVERTER AMP.
4-tube pushpull power amplifier. Carbon mike input, hi-lo imp. output. Works on 24VDC. Easily converted to dandy 9-watt amplifier. Complete with tubes and dynamotor
LIKE NEW **\$5.95**



WILLARD 2-VOLT STORAGE BATTERY
Rated at 20 Amp.-Hours. Model 20-2. Rechargeable. Compact nonspill construction. Lightweight polystyrene container, 3x4x5 1/2". Shipped dry, uses standard electrolyte. Shipping Weight 3 lbs. NEW each **\$2.79**



WESTERN ELECTRIC
1-0-1 Milliampere
3" Round. Center reading to each side. Flush mtg.
Each..... **\$3.95**



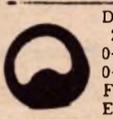
G.F. DC MILLIAMMETER
0-1 Ma. Movement. Scales: 0-2 and 0-40, 3 1/2" round.
Each..... **\$3.95**



DeJUR-AMSCO
3" Square Meter
0-800 Milliamps.
Flush mtg.
Each..... **\$3.25**



DeJUR-AMSCO
2" Meter
0-30 V Scale
0-1 Ma. Movement.
Flush mounting. **\$2.19**
Each.....



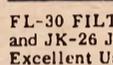
DeJUR-AMSCO
0-50 DC MILLIAMMETER
2" Round.
Each..... **\$2.75**



240-0-240 DC AMMETER
2 1/2" Round. 1-7/8" mtg. ctrs. Black face, luminous markings, zero center.
Each..... **\$2.65**



FL-30 FILTER with PL-55 Plug and JK-26 Jack, complete
Excellent Used..... **\$1.85**



NAVY BEAM FILTER

1020 cycles low impedance. Similar to the FL8 but more elaborate, with cord and PL55 and switching control on slant panel for easy viewing.
NEW..... **\$2.25**



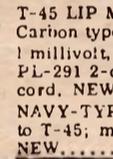
T-30 THROAT MIKE
Gives distinct voice reproduction for most uses. 2 microphones mounted in rubber neckpiece with elastic neckband. Operates between 100 & 300 ohms.
NEW..... **88¢**
Used..... 49¢



T-45 LIP MICROPHONE
Carbon type 100 ohm, 50 db below 1 millivolt, flat response, with PL-291 2-cont male plug, 11" cord. NEW..... **\$1.25**



NAVY-TYPE LIP MIKE, similar to T-45; made by Western Electric. NEW..... **\$1.25**



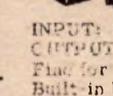
T-17 MICROPHONE
The aristocrat of carbon mikes. 50-ohm. Has handy molded-in hook to hang it up.
Press-to-talk switch on side makes mike circuit before control circuit. Latest model. Weight 2 lbs. NEW..... **\$8.50**
Exc. Used, Checked out.... \$4.95



CARTER GENEMOTO
NEW.... **\$4.95**



INPUT: 5.9 VDC 32 Amps.
OUTPUT 405 VDC 270 Amps.
Flux for mobile ham gear.
Built-in bush filter



HANDMIKE

Rugged, heavy-duty carbon hand mike with press-to-talk switch. Equipped with 4-ft cord & phone plug.
NEW, boxed..... Each **\$1.88** 2 for \$3.25



2" DC VOLTMETER

Mounts in 2-1/8" hole. Flange diameter 2-5/8" Two scales: 0-15 and 0-600. Calibrated for use on steel panel. Standard brand. SPECIAL
NEW, boxed..... Each **\$1.75** 2 for \$3.00



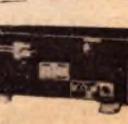
R-20 RECEIVER

Made by Aircraft Radio Corp, works on 28 V, includes 4 tubes: 2/12AW6, 12AX7, 12AT7. Size: 6-1/2x4-1/2x4-5/8".
LIKE NEW..... **\$6.50**



T-41 / APS - 18 TRANSMITTER

ANTENNA UNIT designed for 115 V 800 to 1400 cps. Tubes included are two 15E and one 15R. Complete with shock mounts and blower motor. 7x8x18", NEW.... **\$8.95**



AUTOMATIC BATTERY FILLER doubles battery life! Use one for 6V, two for 12V. Mounting bracket, instructions. NEW.... \$6.99

The DX Den



by Dennis Scannell, WB6IXC



Received a nice letter from Mat, 7P8AD, the other day. You may recall that he was the subject (or more correctly, the reason) for the article two months ago about DXing and conversation versus signal reports.

His letter was in response to the article and he was very much in agreement with the thoughts expressed therein. (I thought they must get mighty tired of passing out nothing but signal reports every time they turn on their transmitters.)

Turns out he is the manager of printing and publishing at the Mazend Institute. He sent a copy of one of their publications, unfortunately for me, it is in French.

He even set up a schedule for another contact so we could do a little "practice what we are preaching."

Several other letters and cards were received, and several personal contacts were made with other amateurs who were sympathetic and who expressed their desire to get to know the operators on the other end through a little "DX Conversation."

Fred Tinner, HB9AAQ, tells us about:

A group of active hams representing four different nationalities have recently founded in Switzerland the "Top Tour Ham Club for International Meeting and Friendship."

The aims of the group are-organization of international meetings- procurement (or assistance to procure) licenses in various countries for vacationing hams - establishment and operation of club radio stations for holders of vacationist licenses -organization of tour programs.

The club wants to offer an opportunity to all licensed hams to pursue their hobby during vacation.

Based on the reciprocal agreements between the licensing agencies of many countries, vacation licenses for a limited period of time are granted which entitle the holders to use amateur radio stations in foreign countries. The club is in a position to procure such licenses or to help hams to get them.

In order to facilitate ham activi-

ties in foreign countries, the club has established a network of club radio stations which are located in our own club rooms within first class hotels. In Portugal there is even our own club house.

Presently the following stations are ready for operation and thus are at the disposal of guest members of our club.

HB9 QTH: Bad Ragaz

HB9 QTH: Zweisimmen

HB9 QTH: Lugano

HBØ QTH: Gamprin

DL QTH: Spitzingsee

OE9 QTH: Bregenz

CT1 QTH: Armacao de Pera

as well as a VW-Campmobile with built-in radio station.

The club stations are equipped with modern, 500 W PEP transceivers, electronic key, dynamic microphone and synchron clock. Different antennas are used according to local circumstances ranging from ground planes to five element beams.



Greta Wyss, HB9ACO, at the mike of Top Tour Club Station HBØXIC, with Darleen Souigny, WA6FSC.

The mobile station is equipped with a transceiver (FT-101) and a Hustler mobile antenna.

The club presently is making arrangements with airlines and other travel organizations for an active cooperation. Interesting individual and group tours will be made available to guest members in the very near future.

Tornado Emergency

(Continued from page 1)

had 2-meter gear in operation for around-Vancouver operation -- especially with mobiles. The latter included Bill Smith, W7SNY; John Ellis, K7SUQ; James Townsley, K7SUX, and perhaps others.

The mobiles of course were used for various chores -- checking out details here and there, and providing communication where needed by Red Cross crews.

Although NAMS ceases operation at 5:45 p.m. daily, the 3960 kHz NAMS emergency operation kept right on throughout Wednesday night and into Thursday morning until about 2. a.m. Two nets (Columbia Basin and Northwest Eyebank) which use 3960 kHz normally, moved graciously to other frequencies so that NAMS could continue its work uninterrupted.

From other points in the Pacific Northwest and West health-and-welfare inquiries originated through a large number of amateur stations who got in touch with their local Red Cross offices -- where, naturally, such inquiries are placed.

There was no confusion, no fumbling, throughout the entire episode. From this we conclude that NAMS and similar monitoring services by their very nature are well equipped to cope with disasters.

At a dinner meeting of the Clark County Amateur Radio Club in Vancouver, Washington, on 29 April 1972 the American National Red Cross awarded certificates to the following radio amateurs:

W7AZN	WA7KMW	W7RQG
W7BG	WA7LTR	W7SNY
W7DYK	W7MDM	K7SUQ
W7EEA	WA7MQC	K7SUR
WA7HYV	WA7OAR	K7SUX
W7IOU	WA7OAS	K7TAR
WA7KKC	W7RCM	W7ZDR

The certificates to the above 21 hams were "in grateful appreciation for humanitarian service during the Vancouver tornado disaster" of 5 April 1972. Thus read each certificate --signed by Pat Walz, chairman of the Clark County (Washington) Chapter of the Red Cross.

AMERICAN RADIO RELAY LEAGUE
Southwest Division Convention
Santa Maria, Calif. October 21-22'72

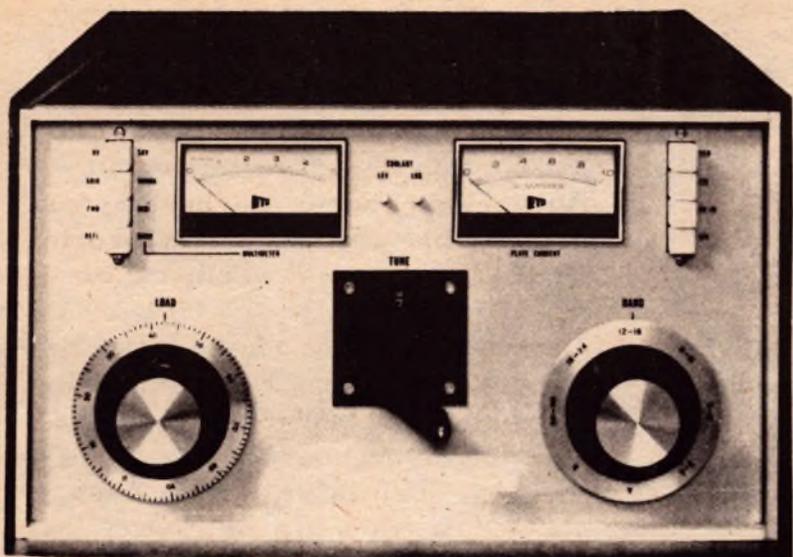


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See page 30

THE ALPHA 77A

signal/one CX-7A



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orders
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specialty

NEW Alpha 77A now by CMI

*New 8877 final * Vacuum relays and capacitor * Cool and easy max. legal power -SSB, CW, RTTY or SSTV through commercial ratings* Six second band change * Electronic bias control-plate dissipation zero until RF drive signal is actually present * THE linear for THE CX-7A

YOU will never know how little it costs to own THE incomparable CX-7A or Alpha 77A until YOU write or phone us and let us know the trade in deal YOU WANT. * We usually say yes! NO ONE ANY-WHERE BEATS OUR DEAL*



signal/one
* 160-10 Meters * 300 Watts *

*Transceiver or split frequency with two built in VFOs * CW keyer built in*

*IF shift - new patented QRM remover *

*IF noise blanker * digital nixie frequency readout * superb computer grade construction by CMI

*AFSK keyer * adjustable output power* broadband tuning * output wattmeter and reflected power meter * \$2195

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Special Sale: TR-3 \$279;

75S-1 \$250; HA-460 \$49;

Com. III \$69; DX60B \$59.

Steven Kullmer, Evergreen Inc.
Dysart, Iowa 52224

■ People Helping People

imra

Sister Mary, WA5VBM



14.280 MHz

IMRA News

Ted Barron, W1NN, died on April 24. He was buried in Boston on April 26.

Sister Mary Louise Hughes and Brother Robert, W8GYR, represented IMRA at the Dayton Hamvention.

For information on the IMRA International Convention to be held Aug. 18-20 in Rochester, Minn., write to Sister Alverna, Assisi Heights, Rochester, Minn. 55091. On the program will be Felton Jenkins, KØZZR, talking about "Emergency Communications in Time of Disaster." He is very active with the Red Cross and has received a citation from President Nixon for his outstanding work in this field. Father George Metcalf, WØJH, local Episcopal Pastor, who is a very close friend of Fred Hargesheimer, WØEBG, /VK9FH, will show color slides of Fred's experiences in the South Pacific. Ward Jensen, WØTLE, will speak about the Handi-Ham System in Minnesota. A tour of the Mayo Clinic and the Mayo Clinic Medical Museum, arranged by Dr. James Cain, WØ-AGL, is on the agenda. Father Vern Peters, WØBHO, has invited everyone to a gathering at his cabin at Harper's Ferry, Iowa. Many more events are scheduled, including a showing of the ARRL film "The Wide World of Amateur Radio."

Father Len Bose, W6BSO, has received a special invitation to the MARCO Convention to be held in San Francisco, Calif. this June and will be one of the guest speakers.

Walt Huelsbusch, K8HBH, has been handling medical traffic into Cincinnati for the Franciscans. Father Clem, W5SBJ, and Father Chris, K5RXN, have expressed gratitude to Walt and IMRA.

Dr. John Schindler, W4RFA, has been handling some extraordinary traffic into Guantanamo Bay. One of the horses, which are kept for recreational purposes, died... cause-not apparent. It was feared the other animals might be in danger and a call for help was sent out via KG4AM. Several veterinarians were called in for consultations and after much discussion one of the vets hopped on a plane to get a first hand view. He returned after giving the animals a "clean bill of health."

Saturday traffic net inaugurated by IMRA: The net will operate from 1900-2000 GMT (1800-1900 GMT during Daylight Saving Time.)



Long before he became a member, Frank Studva, WB4RBR, was an ardent IMRA fan. In fact, he started off as a CB'er and SWLed on the ham bands using an old Hallicrafters FX-111 receiver. Frank knew most of the IMRA members by call and name before he ever started studying for his amateur license under the tutelage of Joe Lanno, WB4JOB, of Miami.

While Frank was studying for his amateur license, he spent a lot of time listening to Joe, WB4JOB, Net Controlling the 0100 GMT session of the IMRA Traffic Net; and occasionally Joe put Frank on the mike. Finally in May of 1970, Frank got his General Class ticket and was issued the call sign of WB4RBR.

Frank Studva was born in Perth, Amboy, N.J., in 1937. Upon completion of his schooling, he entered the Air Force to fulfill his service requirements. After the stint in the service, he married his XYL, Dorothy, and moved to Northern, N.J., where he worked as a welder for the Rowe Manufacturing Company (vending machines). Frank and Dorothy have been married for 15 years and have three children... Marie, 14; Dottie, 13; and Nancy, 9. Dottie is the only one of the girls to show an interest in Amateur Radio.

After making many trips to Florida, Frank finally moved his family to Miami in 1963. When asked for a reason

for the change of QTH, Frank without a moment's hesitation said, "I got disgusted with all that cold weather." Frank is now Maintenance Mechanic for the City of Coral Gables, Florida.

Of Slavic and Polish descent, Frank is 5 ft., 9 inches tall, has blue eyes and brown hair which is turning gray at the temples.

The station at WB4RBR is a National NCX-200 and an SB-200 and there are antennas for all bands except vhf. Frank has a TA-33 and a Ham-M on a 40-ft. crank-up tower and he uses a pair of Hustlers back-to-back on top of this tower for 80 meters.

Besides tinkering with electronic equipment (at present he is building an SB-610 scope), Frank likes to go Snook fishing everytime he gets time to go out. He is trying very hard to learn how to swim, too, because if he ever falls out of that boat it will be curtains. And he is tired of his daughters dumping him off the float in his swimming pool.

Frank first became interested in the IMRA while assisting Joe Lanno in his net activity and has been a participating member ever since he received his ticket in 1970. When Joe is tied up as Net Control, Frank handles the phone-patch requests for Miami. WB4RBR is also a frequent NCS and assists regularly as a relay station for IMRA.

FM West

WESTERN AMATEUR FM CONFERENCE AND California Amateur Relay Council Meeting



TENTATIVE PROGRAM Friday, June 2

4 PM Registration
6-7 PM Champagne party \$1.00 per person

Saturday, June 3

9 AM Registration
10 AM Commercial Exhibits open all day
10 AM Ladies coffee hour
10 AM Swap shop open to all registered participants
10 AM Technical talks and exhibits
1-5 PM CARC Meeting
2 PM Ladies Program
6:30 PM Attitude adjustment period
7 PM Banquet

TECHNICAL SPEAKERS:

Art Fury, WA6JLJ
Signetics Corp.

Douglas Blakeslee, W1KLLK
Editor, ARRL Handbook

Program- Speaker Wayne Green, W2NSD/1, Editor, 73 Magazine
Drawing of door prizes.
Individual repeater movies or talks.

Sunday June 4, 10 AM, ARRL Forum, J.A. "Doc" Gmelin, W6ZRJ, ARRL Director

Motel accommodations to be handled direct to Tropicana Lodge, 4061 N. Blackstone, Fresno, 93726; 209-222-5641. Be sure to specify you are attending **FM WEST** and include your call. Singles, \$14., Doubles and Twins, \$18.00. Reservations must be made by May 20. Reservations will not be held after 6 PM, without a deposit in advance. Repeater Associates is not responsible for motel accommodations or lost tickets. If you have problems or questions feel free to write.

Talk in Friday and Saturday, WB6 HYL 146.34- 146.94, 52.525 simplex.

The Associates 146.12- 147.71 51.725- 51.125 51.3 simplex. 146.20 - 146.80

ADVANCE REGISTRATION

FM WEST Western Amateur FM Conference and California Amateur Relay Council Meeting

Pre-registration deadline- May 26, 1972 (postmark) Tickets purchased later will be \$9.00.

Please reserve _____ Tickets for me at \$8.00 each.

Name _____ Call _____

Name of XYL or guest _____ Call _____

City and state _____ Zip _____

I will attend the champagne party Friday night YES NO

Mail to Repeater Associates
c/o Tom Hayward, WB6GVQ
3122 Swift Circle
Clovis, Ca. 93612

Checks or money orders should be payable to Repeater Associates. No confirmation will be sent. Tickets will be available at registration desk.

Communicate Worldradio

You homebrewed, trouble-shot, modified and tuned the rig. You experimented with all the antennas, and you finally have yours tuned as sharp as a gnat's toothpick. You can hear 50 dB below the noise. What's next?

Who was that person who gave you the 5 by 9 in Brazil with your new skyhook? Who was that fellow who gave you that "first VK9" or that fiftieth VU2? Was he a doctor? A missionary? A teacher?

Worldradio is a new amateur newspaper, DEVOID OF POLITICS, believing strongly that amateur radio is only partially reaching its potential to build bridges between people — around the world or just on the other side of the local repeater.

We're all interested in the technical aspects of our hobby, but WORLD RADIO is trying to complete the picture with insight into the people who are making our hobby the unique and fascinating international service which it is today.



TWO HUNDRED METERS AND DOWN

The Story of Amateur Radio-By Clinton B. DeSoto-Courtesy of ARRL

(First published in 1936, "Two Hundred Meters and Down" is reprinted here so we may have a better knowledge of the vast and great history of Amateur Radio. This presentation is in honor of those who went before us and, through determination and hard work, gave us what we have today.)

*

Introduction...

THE RADIO AMATEUR

In Webster's New International Dictionary there appears the following definition:

Amateur: One who is attached to or cultivates a particular pursuit, study, or science, as music or painting, from taste, without pursuing it professionally.

The General Radio Regulations annexed to the International Telecommunications Convention, concluded among the governments of seventy-two countries at Madrid in 1932, contain the following definition:

Article I, (14) Amateur station: A station used by an "amateur", that is, by a duly authorized person interested in radio technique solely with a personal aim and without pecuniary interest.

This definition is essentially duplicated in Sec. 3(q) of the Communications Act of 1934, approved June 19, 1934.

The Rules and Regulations of the Federal Communications Commission state:

361. The term "amateur service" means a radio service carried on by amateur stations.

362. The term "amateur station" means a station used by an "amateur", that is, a duly authorized person interested in radio technique solely with a personal aim and without pecuniary interest.

364. The term "amateur radio operator" means a person holding a valid license issued by the Federal Communications Commission who is authorized under the regulations to operate amateur radio stations.

365. The term "amateur radio-communication" means radio communication between amateur radio stations solely with a personal aim and without pecuniary interest.

The typical radio amateur of 1936 is a young man 25 years of age. He holds a license issued by the Federal Communications Commission qualifying him as an Amateur Radio Operator, Class B, and as the licensee of an Amateur Radio Station, all valid for a term of three years.

His station, which is homemade from manufactured parts purchased largely at the neighborhood parts store, utilizes radiotelegraphy exclusively, although he expects some day to try radiotelephony. The actual value of his station is about one hundred dollars. The power of the transmitter is moderate, amounting to about 100 watts input to a pair of Type 10 transmitting tubes in the output amplifier stage, which is excited by a crystal-controlled oscillator. The receiver utilizes three tubes and is of the regenerative type, with one stage of radio-frequency and one of audio-frequency amplification. His antenna system consists of a 130-foot wire with a two-wire transmission line perhaps 60 feet long, suspended well up in the clear outside his home.

This young man is a high-school graduate. He works for a living, is self-supporting, unmarried, and is employed at a technical trade. He is quite well-liked in his community, respected for his knowledge of radio with the respect due an expert. He is somewhat lax in fulfilling his social obligations, not through lack of inclination but because of lack of time. He'll probably be married soon, and then there will be a hiatus in his amateur career, although he will eventually return to the game. He has been interested in radio for several years, a licensed amateur for nearly three. During that time he has expended approximately three hundred dollars upon his hobby.

Such is the typical radio amateur of 1936. Individuals, inevitably, depart widely from this norm. In age, they range from 8 to 80; in education, from those who halted in the grammar grades to the erudite holders of doctor's degrees; in social status, from convicts in federal prisons to scions of wealthy families

and the son of an ex-president of the United States; in occupation, from coal miners and bellhops to major executives in giant corporations. Nor are they all men: to their numbers must be added several hundred licensed feminine operators, married and unmarried, and these fall between the extremes of a little 9-year-old girl operator who can beat professionals at their own game and an aged mother who keeps in touch with her distant son--and other sons, as well--by means of amateur radio communication.

The story of amateur radio is the story of an adventurous band of free spirits, in present times more than 60,000 strong, scattered over the entire globe in every continent and every country, who hold communication far up in the empyrean spaces over roaring ocean and untracked land. It is the story of men and boys, eminent scientists and young lads in school--and women and girls as well--who at the touch of a key or soft word spoken into a microphone can leap around the world; who have wiped out for all time the age-old barriers of race and language and distance.

It is the story of a band of good fellows, happy, convivial, carefree, playing the game for the very love of it; but underneath all that carrying on with the deep earnestness of those who have successfully pierced the veil of the unknown and garnered the secrets of science. Hamfesting, they go, and ragchewing; greeting each other and passing on around a corner in the Milky Way with the careless, cordial effrontery of "Old Man" and "73" and "CUL"... and then turning to the saving of a hundred lives in a fever-ravished Alaskan village or flashing the kindly words of the homeland press to a party of explorers at the bottom of the world.

There are amateurs in every field of endeavour. There are a thousand hobbies in which the spare time of humans is dissipated. One can find countless methods to avoid ennui, to satisfy intellect and ego, and even to do service to one's fellow man. There are those who reach out into space searching infinity with their telescopes. There are others who find less of interest in the gaudy colors of a bawdy night club than can be encountered within the barrel of a microscope. Stamp collectors do (Turn to page 30, please)

THE NOBILITY NET

(adv.)

The Nobility Net of North America is a non-profit gathering of Shriners and members of the Masonic Order who have dedicated their services in behalf of the world's most rewarding philanthropy...

The cost-free care and rehabilitation of crippled and seriously burned children in our 22 Shriner's Hospitals, throughout Canada, Hawaii, Mexico and the U.S.A.

Among our many aims - to make available to parents of crippled children, who are unable to afford the high cost of

medical aid, knowledge of how to secure these surgical services free of charge; aid in providing transportation for patients; setting up of blood-banks and creating good relationships between Shrinedom and the public who are not aware of this great philanthropy.

There is no initiation fee nor are there any dues. All that a Noble or Mason need do is to check into the Nobility Net which meets each Saturday at 1700 GMT, on 14.310 MHz.

(de International Coordinator W3FQT)

(adv.)

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.

Letters

I would like to offer my reaction to comments by Wayne Green, W2NSD/1, and Don Wallace, W6AM, on page 5 of the 7 February issue of "Worldradio" in getting new-comers into Amateur Radio.

I do not agree that it is necessary to relax licensing requirements to get more people into Amateur Radio. There are plenty of people willing to do the work necessary to get a Novice license. Amateur Radio has prestige for at least three reasons: its public service reputation, the versatility of its communications, and the stiff requirements for getting a license.

One of the biggest recruiters for Amateur Radio has to be citizens band radio. Of 20 amateurs in Johnson County, Mo., at least five were citizen banders first, and four of those have or soon will have their General Class licenses. In this and adjacent counties I know of five additional citizens band operators who are actively working on their Novice licenses, Morse code and all. When the Warrensburg Amateur Club announces a radio licensing class, we get more than 12 students, and have more than five of them licensed within three months. We draw people between the ages of 12 and 50, from a county population of 20,000 and a college of 11,000.

This is the key factor: a group willing to put some effort into a licensing program. Not just a Novice program, but a Novice-and-General Class program. This successful program includes code and theory, transmitter tuning, help in erecting antennas, selecting and debugging equipment, and on-the-air-contacts. There must be a General Class Licensing class as a continuation of Novice instruction. In this way, most people with no background can be General-Class licensed within nine months. There is no problem attracting people to Amateur Radio, there is only a problem of giving them enough time.

How much time does it take to give the group a fair chance at a General? About 1 1/2 hours, two evenings a week, for three months for the Novice; about 1 1/2 hours, one night a week for six months for the General. There should also be a Novice net once a week -- if this won't get them on the air, nothing will. With this arrangement, Morse is no more of a problem than the theory.

Yes, guys and gals, it is still possible to get people into Amateur Radio. If you are concerned about it, get away from your TV or rig one or two nights a week for awhile. You will get a great deal of satisfaction from the effort. If you have any questions about the Warrensburg ARC's program, please send a large s.a.s.e. 73, and good licensing.

Clifford Chamney, KØBIX

The format and content of "Worldradio" is essential to the future of Amateur Radio... Doug Murray, W6HVN

Your publication is the most imaginative and useful thing out today. If we don't work together ham radio will become past history... Scott Freile, WA5UHR

Your dedication, your unswerving faith that ham radio is a force for good, comes through... Pat Philippi, WB9DDA

"Worldradio" is the type of publication we have been needing for many years. We need interesting, human-interest reading to encourage the development of world service through ham radio... Ernie Bracy, WIBFA

I am sure it will be appreciated all over the world in a very short time. "Worldradio" is a good way to promote friendship between hams in all countries. It is easy to read and an opportunity for me to learn better English. I like the warm personal tone... Fred Tinner, HB9AAQ

I find "Worldradio" extremely interesting... C.J. Psiloyannis, SV1DB

Excellent job of putting out current news. Larry Shima, WØPAN

You are doing a great job and covering a side of ham radio that has been pretty well missed... Win Wagener, W6VQD

We really need this publication... Bob Zuiker, WA9VIR

You've really got an S9 plus idea going... D.W. "Win" Titus, K6ART

Unique in content and format. Wishing you great success... Bob Parlin, WØSFU

Interesting and very informative... Anna Guerra, W6ZNY

I like the idea... Wally Newman, W6FEX

Like a good wine, "Worldradio" certainly is improving with age... James Weaver, Ph.D., WA8COA

Enjoy paper very much... "Bud" Fuchs, W2PND

Very interesting articles... Rev. Leo Brand, WØJCO

Congratulations for what you are doing. I know the effort you put into "Worldradio" You are on the right track... Gerard de Buren, HB9AW-WA6QAU/3

Very newsy publication... Ray Meyers, W6MLZ

I congratulate you and all who have been supporting you from the start... Phil Pector, W9LDX

I find your newspaper most interesting and refreshing... Richard Pitner, WØFZO

Your newspaper is excellent and we await it with anticipation... Raj Cauthers, K7NZO

I appreciate the way it is written so that the non-ham can gain a better appreciation for Amateur Radio... Paul Gagnon, WA6DEI

From CCRC Circle

...a paper doing a fine public relations job for Hamdom, it deserves all the help we can give. Its the kind of paper we should have in all our schools and public libraries, or wherever it can get the greatest general exposure. Please subscribe.

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From RARA & HHS Flyer
...the purpose of the endeavor is to tell the world about human-interest stories in Amateur Radio. Its issues have been intensely interesting and thrilling!! We heartily recommend this fine publication and hope that many will subscribe to this unique publication that stands for the best in people.

From HAM RADIO
..."Worldradio" covers public service, humanitarian and international aspects of the hobby as well as FCC news. Service nets, ham expeditions, unusual amateurs, amateur connected rescues and mercy missions are all reported in the new newspaper... (Wr thanks Jim Fisk, W1DTY, and Skip Tenney, W1NLB, of HR)

From Australian EEB:
...this radio amateur magazine is not only idealistic, but also practically idealistic. The point is made that mass media tend to stress the bizarre and overlook the constructive aspect of life. These people present constructive operator's amateur radio as a challenge to humanity and to the survival of amateur radio. Amazing. Try them out.

I'm 13 years old and saving up for a beam antenna. Its not so easy for me to come up with \$5.00 but I enjoy reading "Worldradio" a lot. Enclosed is \$5.00 for a one year subscription! 73 es GL with your paper... Steve Bogen, WB9FKD

Friend Phil

(Continued from page 6)
the future, or could be provided with sufficient blank pages to write the info as it became available. In effect a miniature Whos Who in the Ham World would be created. This listing I believe automatically brings the common interest (Ham Spirit) out and narrows the group down. This then surpasses the regular technique of lugging a callbook around. This method would leave the uncertainty of not knowing how you are to be received or what you may be walking into.

Don't get me wrong, I am not insinuating that hams that drop in on other hams by chance are going to be turned away. No, through my own experience I have encountered some unusual experiences that I could have avoided had I not relied on chance. Is it worth exploring? I believe it would be very useful. There is a similar book for an elite group of world travelers.

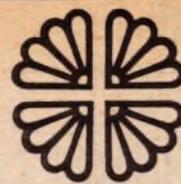
If and when I have to take leave of this great earth, I hope I can at least feel that I sort of earned my keep by helping our fellow man. In my case I like to help hams. Other people use other mediums and methods to derive their own type of gratification. But, to each his own. Each person will have to be his own judge.

Instead of just talking about helping their fellow man, perhaps more hams will start realizing there is much joy received from helping others.

Yes, there's a lot going on "out there".

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 Guatemala, Honduras, Nicaragua and Colombia, the non-denominational 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 disbursements will be reported in Worldradio.

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

participants *Worldradio subscribers*



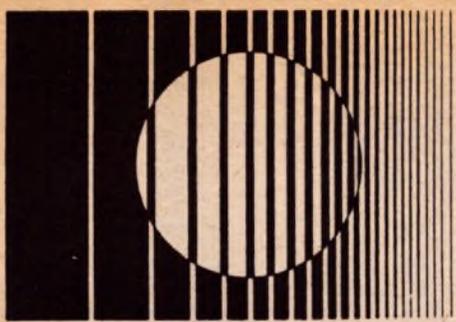
This listing is provided to facilitate your acquaintance with others of similar interests.

(Continued from last issue)

Carl Nevlin, K9DUQ, Alton, Illinois
Steve Bland, WB8FVW, Terre Haute, Indiana
Charles Fisher, W6FFN, Covina, California
Morton Miller, W6HEW, Arcadia, California
Walter Huelsebusch, K8HBH, Cincinnati, Ohio
Joe Buswell, WA5TRS, Midwest City, Oklahoma
Quement Electronics, San Jose, California
Garland Sawyers, WA6MRI, Ventura, California
Andrew Ranhosky, WA6EYU, Rowland Heights, Calif.
Steven Cerwin, K6OJO, Mill Valley, California
Joseph Westheimer, WB6KUC, Beverly Hills, Calif.
Kenneth West, W8JAX, Flushing, Michigan
Cliff Costa, -, Auburn, California
Tom Branan, WB4KQE, Ocala, Florida
John Vitellaro, K9PCQ, Bellwood, Illinois
Dennis Karzag, -, Santa Barbara, California
Gary Belcher, KH6GMP, Ewa Beach, Hawaii
Wyman Fong, W6PVQ, Johnston Island
Alfred Denson, W1BYX, Rockville, Connecticut
James Farris, Jr., WA4MGC, Birmingham, Alabama
Richard Pinter, WØFZO, Sioux City, Iowa
Charles Patton, WA5UJF, Enid, Oklahoma
Paul Leising, WB6FMQ/9, Milwaukee, Wisconsin
George Hudson, W6BTY, Sacramento, California
Tony Buzdas, K6IKV, Sacramento, California
R.H. Lindquist, W6SM, Turlock, California
Gene Richard Bell, KØBVM, St. Louis, Missouri
Joseph Bush, W6CYV, Arcata, California
Pete Peterson, W6LGW, Alamo, California
Bernie Paul, W5YVJ, Houston, Texas

Bill Bremer, W5EKP, Houston, Texas
John Myers, K5CUY, Houston, Texas
Vic Huvelle, K5MJF, Houston, Texas
Ken Sattgast, WAØPSG, Warrenton, Missouri
Anna Marie Guerra, W6ZMZ, Campbell, California
James Bedard, K2TRZ, Westbury, L.I., New York
Bruce Newlan, W6IHN, Santa Clara, California
Carl Carlson, W6CBG, Glendale, California
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Jack Moore, W5ALA, Dallas, Texas
Jane Jones, K3ZDN, Chettenham, Pennsylvania
Barbara Smith, WN9IAK, Chippewa Falls, Wisconsin
C. Francis Leary, K1YKQ, Newburyport, Mass.
John O'Connell, W1HQO, Newburyport, Mass.
William Dickie, K1WOC, Salisbury, Massachusetts
Kenneth Dawson, VE2DU, Pierrefong, Que, CANADA
Harry Riesbeck, VE2RO, Hull, Que., CANADA
Steve Bogen, WB9FKD, Highland Park, Illinois
R.H. Ebenreiter, W9LXC, Sheboygan, Wisconsin
Jeannie Willis, -, New York, New York
Rev. R.P. Lambert, WA1MTS, Wakefield, Mass.
C.J. Weber, -, San Lorenzo, California
James Smith, WAØZZZ, Minot AFB, North Dakota
Gil Snyder, WNØWUO, Council Bluffs, Iowa
David Dow, -, Sacramento, California
Stanley Kasper, W3ZGG, Lansdale, Pennsylvania
W.T. Thompson, WØNYG, Leavenworth, Kansas
Robert Shaw, HR1RTS, Tegucigalpa, HONDURAS
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(Continued next issue)



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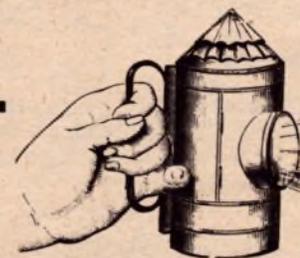
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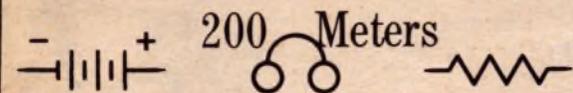


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(Continued from page 26)

an annual mutual business totalling millions of dollars; they have created an industry for themselves alone. Every field of scientific and intellectual research owes a great debt to the amateurs it has attracted and from whose achievements it has benefited.

But to none other than the amateurs of radio is existence in the world dominion of the air vouchsafed by an international treaty to which nearly all the nations of earth are signatory; for none other than amateur radio have these governments written laws and formulated regulations and issued certificates of proficiency which makes them the only class on earth capable of communicating beyond the range of their own senses without paying toll to some governmental agency or commercial corporation.

These considerations alone distinguish amateur radio. But it has many other distinguishing characteristics. Amateurs in radio transmission, as opposed to the great listening public, have for their field of endeavour the

whole realm of physics, with all the natural phenomena of electricity, magnetism, light and sound. In thousands of volunteer laboratories and in thousands of individual training schools they toil nightly--volunteer workers, amateurs: amator, lover; amare, to love--all for the love of the work and the thrill of achievement.

Into a great story of technical advance they have written another of unparalleled service to humanity, of matchless heroism in flood and disaster. Their great emergency system of communication carried on when all others have failed. In many years no community in distress in this country has been without valiant aid from amateur radio. They have never been found wanting. The part they have played in the development of radio has been tremendous. From the very first days they have been always in the vanguard. Some of the early amateurs had better equipment than was in use by the United States Navy. Radio legislation has from time to time restricted their efforts and their territory, but instead of curbing their achievements, it has only inspired them to better their operation in the territory left them and with the comparatively low power they have been compelled to use.

(Continued next month)

Burbank Hamfest

Seventh Annual Burbank Hamfest
10 am-8pm Saturday, 20 May 1972
2814 Empire Avenue, Burbank, CA.
The only major annual ham convention in the Los Angeles area. Sponsored by the Lockheed Employees Amateur Radio Club. Location is seven blocks east of Hollywood-Burbank Airport. Exhibits-Programs-Adventure-Excitement. Pre-registration-\$2.00. Send to LERC-address above.

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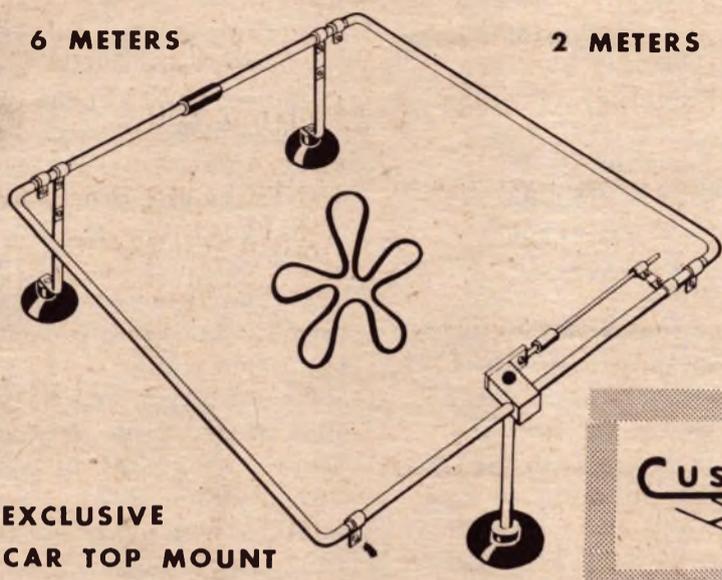
School teacher Ken Haller, W7SYE, reports that he was able to obtain a federal grant of \$600 to purchase amateur radio equipment for the grade school where he teaches.

He ordered the new equipment from Bill Ogg of L.A. Electronix at a school discount. Ken will be teaching novice classes during school hours to 7th and 8th graders. (From Nazarene Amateur Radio Fellowship "Newsletter".)

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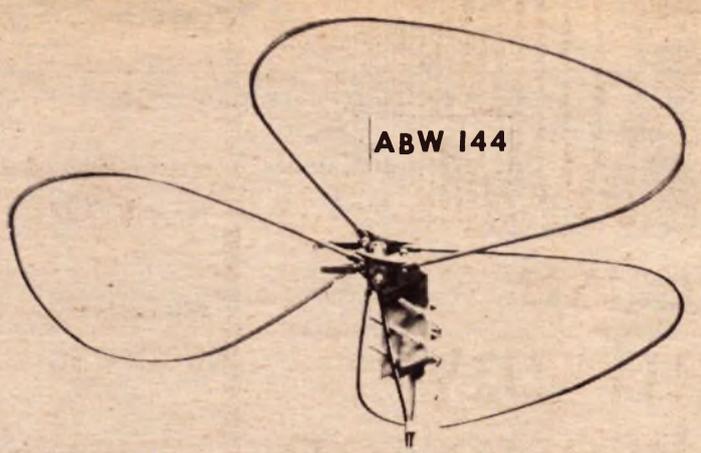
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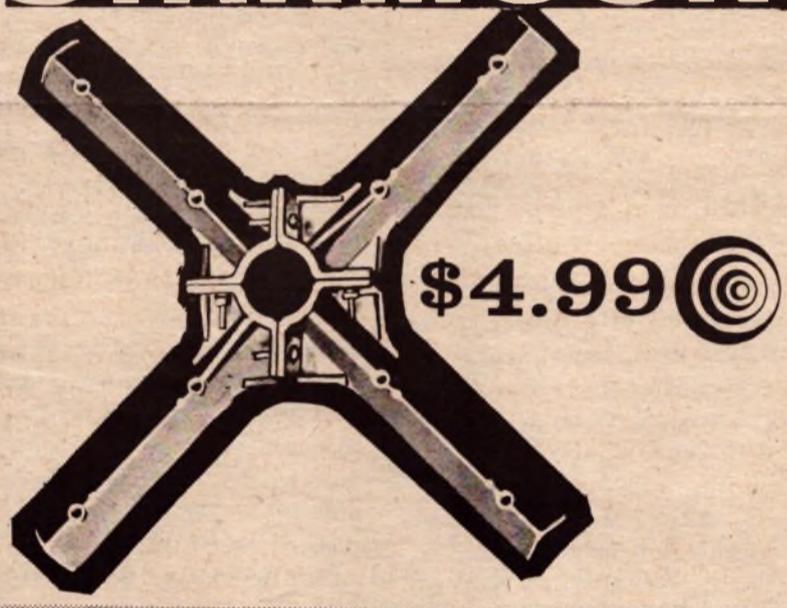


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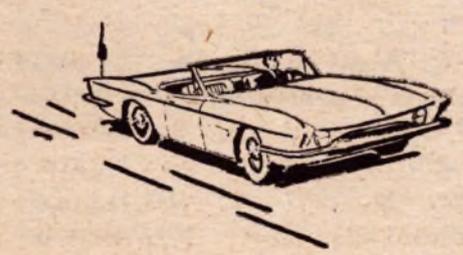


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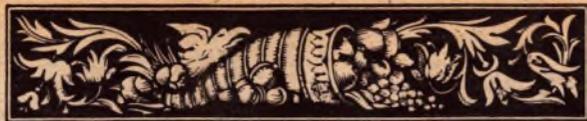
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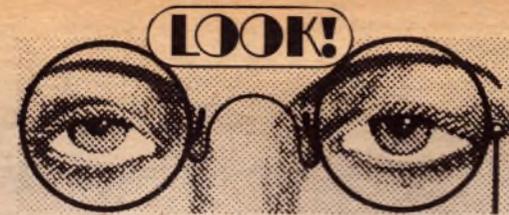
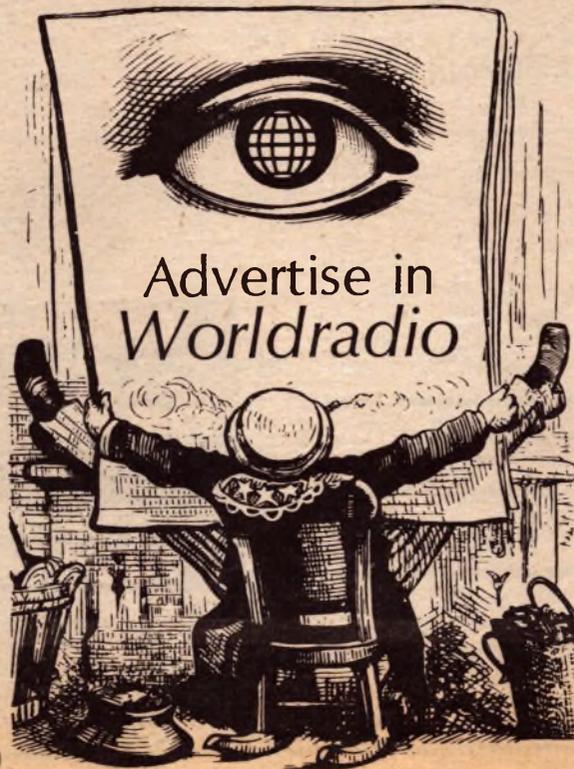
Manual for Radio Amateur Civil Emergency Service (RACES) Revised 1971 - \$3.00. Figleaf Research Services, Box 237, Bethany, OK 73099

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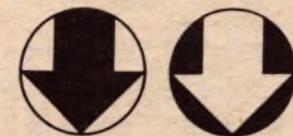
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