



Worldradio

NEWS of the month of September, 1972 - 50¢

"Ham" Craze Hits Jordan King Leads Way to Radio Wave Hobby

ZERQA, Jordan (UPI)--When King Hussein took to the radio waves as Jordan's first "ham" operator, he little realized he was starting a craze in his kingdom.

The King began operating about two years ago as JY-1 on a radio set given to him as a gift by his English-born wife, Princess Muna. Soon, Muna herself joined in as JY-2.

Now, amateur radio stations are sprouting up all over Jordan-and girls are as keen as boys on the hobby.

Despite its mechanical implications, more than 100 girls in Zerqa have started tuning in to the ether. They are mostly daughters of soldiers living in this garrison town 25 miles northeast of Amman.

In the boys' school a station is already in operation and teen-agers have been making new friends in Europe, the United States and Australia.

The girls get in on the act once a week when a class of 31 girls moves to the boys' school to take instruction from Sgt. Mahmoud Hussein of the Royal Jordanian Signals.

Hannah Mohammed Bashir, a 15-year-old class member, said, "I want to exchange views with my contemporaries from other countries and give them a true picture of our country in the Middle East."

An older student in the class is Fatmi, a teacher from the girls' school. She said, "This is a new thing in Jordan and I want to be one of the first girls to take it up."

S. Sgt. Mahmoud said his girl students are "about equal" with the soldiers he has taught.

Another new "ham" is Capt. Zeidan, headmaster of Faisal College, an army school for children of soldiers killed in action. He has been a soldier for 24 years, most of them in the signals.

The Jordanian call-sign is still very rare however. "Sometimes I have six stations coming up on top of each other trying to contact me when I want to close down," he said.

The Army Education Section is sponsoring the new radio stations under the direction of Maj. Gen. Ma'an Abu Nuwar, the army director of moral guidance. He sees it as a way of getting boys interested in joining the royal signals.

(From the "Los Angeles Times")

Death Takes Helmut Hochberg, DL8ST



One of Europe's, and the world's, most popular amateurs, Dr. Helmut Hochberg, DL8ST, recently died. The story and a tribute, written by John Barrows, W6ECS/DL5HU, and Adda Barrows, WB6EPQ/DA1BO, appears on page 12.

Late Flash!

SOME ADDITIONAL TELEPHONY OPERATION IN TWO HF AMATEUR RADIO BANDS, APPROVED BY FCC

(FCC-Sept. 29)--Rules authorizing a small increase in telephony (voice) operation in amateur radio high frequency bands 3.5 and 7.0 MHz have been adopted by the Commission (Docket 19162). The FCC said that the additional telephony activity could be accommodated without causing serious deterioration in the telegraphy operation in these frequency bands.

The Commission decided, however, not to permit telephony expansion in the 14.0 MHz HF band, saying it would result in serious degradation to non-voice communication. It also found that the 21.0 and 28.0 MHz HF bands were not crowded enough to warrant an expansion of the telephony segments of the bands.

The Commission originally proposed to expand telephony sub-allocations in the five amateur radio high frequency bands from 3.5 to 29.7 MHz, in a rule making notice, adopted February 24, 1971. Also proposed were changes to expand the General-Conditional Class of sub-band operator privileges in four amateur radio HF bands, to provide additional Amateur Extra and Advanced sub-bands in those HF bands where they do not presently exist, and to make adjustments in HF band allocations to facilitate these proposals.

Numerous comments on the proposed rule changes were received from persons and amateur radio organizations in the United States and foreign countries. A delegation from one country made an official visit to the FCC to discuss the proposals.

Telegraphy users opposed expansion of telephony in the HF bands, citing an expected reduction in the effective use of telegraphy bands. Telephony users supported the proposal because the telephony bands are crowded. Foreign amateurs opposed any telephony expansion by the United States, particularly in the 14.0 MHz band.

There are no formal, internationally agreed, sub-allocation plans reserving portions of any of the high frequency bands for any one type of emission. Amateurs in various parts of the world, particularly in Region 1, operate under informal "gentlemen's agreements." The high frequency (Turn to page 2, please)

OSCAR 6

The OSCAR 6 launch is scheduled for a piggy-back ride aboard the ITOS-D weather picture satellite. Launch date is October 9, at 1714 GMT, or possibly any of the four following days. OSCAR will be separated after seven minutes on the first orbit. Then both birds will be flying close together in polar orbits over 900 miles high.

Stations should be able to use the OSCAR repeater at least twice a day for 22-25 minutes. Check for the latest data from WIAW or AMSAT station W3ZM on 7280, 14280 or 21280 kHz. Input frequency is 145.950 MHz and output or listening frequency is 29.450 MHz.

Here's how to figure orbit times: Period of orbit-115.138 minutes--Inclination-107.76 degrees--Change per orbit-Add 28.81 degrees--Beacon frequency-29.450 MHz.

Orbit	Longitude West	Time (GMT)
1	323.97	1824.99
2	352.79	2020.24
3	021.60	2215.48
4	050.41	0010.42
5 etc.	079.22	0205.96

(From "RF Carrier" Dayton AR Assoc.)



Newsfront



Phone Bands Expand

(Continued from page one)

bands are widely used by foreign amateurs for telephony radio communication.

In view of the comments received on its proposals, the Commission concluded that a significant expansion of the telephony segments of HF bands would be at the expense of the telegraphy segments, and that the traditional form of amateur telegraphy "must not be compromised." The Commission also noted that foreign amateurs predicted, if U. S. amateurs were permitted to expand telephony operation into the sub-band between 14.1 and 14.2 MHz, that non-U. S. telephony stations would retaliate by moving into the 14.0 to 14.1 MHz segment, causing a deterioration in telegraphy radiocommunication and a general breakdown in inter-Region cooperation. "This must not take place," the FCC said.

The Commission stated further that crowded telephony emission on high frequency bands is a problem which expanded sub-allocation would not solve.

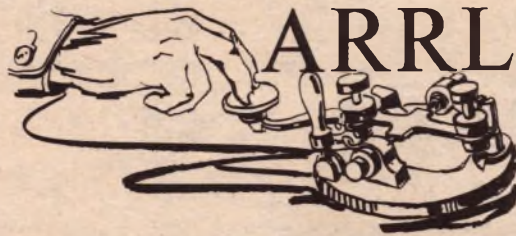
The Commission decided not to authorize an expansion of 50 kHz in the 75 meter band for telephony operation by Amateur Extra and Advanced Classes, as it had originally proposed, but to permit an expansion of only 25 kHz, limited to Amateur Extra Class operators.

The FCC ordered the 7.0 MHz telephony sub-band expanded, as proposed, to the extent of permitting A3 operation between 7150 and 7200 kHz. As a result, the frequency band for Novice Class operation was relocated at 7100 to 7150 kHz. The Commission did not adopt a proposal to provide a telephony sub-band below 7100 kHz for contacts with stations in Regions 1 and 3, but did adopt the proposal to permit telephony operation between 7075 and 7100 for American stations located outside of Region 2.

To help beginning amateur operators gain experience in telegraphy radiocommunications, a new Novice privilege segment was adopted for 28.100 to 28.200 kHz. Lightly occupied segments 21.200 to 21.250 MHz and 145-147 MHz were deleted. Because of these changes and the relocation of the Novice 7.0 MHz sub-band, the requirement that the transmitter be crystal controlled was removed.

Proposed establishment of exclusive operating frequency privileges for Amateur Extra Class and Advanced Class licensees; proposed restriction of telephony sub-bands to the Amateur Extra Class in the 7.0 and 14.0 MHz bands; and proposed reduction in the Amateur Extra restricted telegraphy sub-band were not adopted.

The rule changes (Part 97) are effective November 22, 1972.



OFFICIAL BULLETIN #389 September 7

Two new editions of popular ARRL directories are now available for distribution. The current revision of the Repeater Directory, detailing 615 repeaters, requires an addressed envelope larger than 6 by 9 inches, with 24 cents postage for first class mailing. The 1972 Net Directory can be sent first class in an addressed legal size envelope with 16 cents return postage. For both directories, send the larger envelope with 32 cents postage. Directories have been mailed to those filing earlier requests.

OFFICIAL BULLETIN #391 September 21

Attention DXers. Announcement is hereby made of the addition to the ARRL Countries List of Mellish Reef. Mellish Reef is territory belonging to Australia located at approximately 17 degrees 25 minutes south latitude and 155 degrees 52 minutes east longitude. This addition to the Countries List is made under Point 2 (a) of the criteria detailed on page 131 of the October issue of QST. Submissions for DXCC credits for Mellish may be made starting November 1. Confirmations received before November 1 will be returned without credit. With this addition, the last position in the Honor Roll will be 312 deleted. DXCC participants who can make the 312 deleted total may make submissions for Honor Roll credit during December.

ATTN: San Francisco, CA

Leland Kiff, K6PXT, is in need of an estimated 50 pints of blood (barring complications) for a scheduled operation in San Francisco. Due to hemophiliac problems he must go to surgery as hemorrhaging has destroyed the cartilage in both knees. Without the operation he would eventually be bed-ridden. Please credit blood donations to him at Childrens Hospital, 7800 California St. San Francisco, Calif. (From "Loudspeaker" San Gabriel Valley Radio Club)

statistics

	1966	1969	1972
Novice	12,325	21,729	25,307
Technician	58,879	53,955	52,138
Conditional	37,994	33,355	30,313
General	105,358	97,810	88,325
Advanced	37,610	48,070	57,818
Extra	4,599	9,283	11,852
TOTAL	256,765	264,986	265,752

FCC licensing figures provided by L. Phil Wicker, W4ACY, and sent to WORLD RADIO by Robert York Chapman, W1QV, New England Division Director, ARRL.

Washington Report: FCC



Repeaters

Licensing and Operating Rules for Repeater Stations in Amateur Radio Service Amended by FCC

(Aug. 30)--Amendments to part 97 of the rules concerning the licensing and operation of repeater stations in the Amateur Radio Service have been adopted by the FCC (Docket 18803).

Repeater stations receive and automatically retransmit the radio signals of other amateur stations and are used primarily to extend the radiocommunication range of vehicular and hand-held mobile stations. Although the present rules do not specifically refer to repeater stations, it has been Commission policy to permit amateur stations to operate under the rules applicable to all amateur stations.

In a rulemaking notice adopted February 26, 1970, the Commission invited comments on rules proposed for repeater stations. It said that the rules it was adopting are intended to permit "the flexibility needed in the service, and to provide the licensing framework for accommodating future technical and operational advancements in amateur radiocommunications."

Beginning July 1, 1973, a separate station license will be required for every amateur repeater station. These stations will be identified by a call sign having the distinctive prefix WR. In order to qualify for a repeater station license, an applicant must be at least a Technician Class licensee and must submit certain data regarding the technical and operational provisions of his proposed station.

An amateur's license, which now specifies the location of his station and his operator privileges, will also include the privileges authorized for his station. At a minimum, the station privilege would be a "primary station." The various kinds of station privileges may be combined with a primary station license upon submittal of the appropriate information.

The remote control operator may be any qualified amateur designated by the licensee. The new rules permit a licensee to use his own repeater station while he is operating mobile or portable; provide for auxiliary link stations to be used when terrain makes "multiple-hop" control links necessary; and provide for "wire" remote control. Certain stations other than repeater stations now authorized for "wire" (Turn to page 28, please)

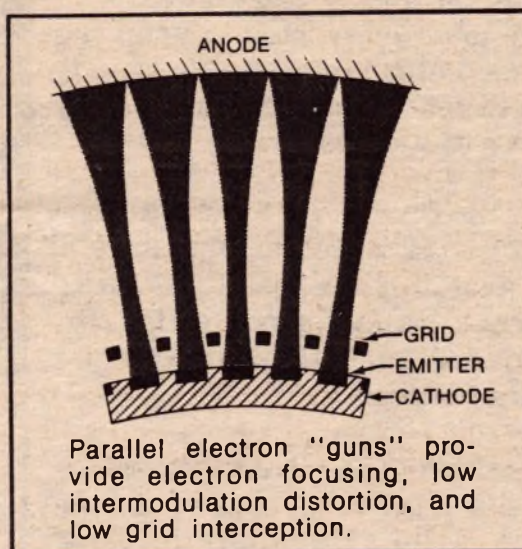
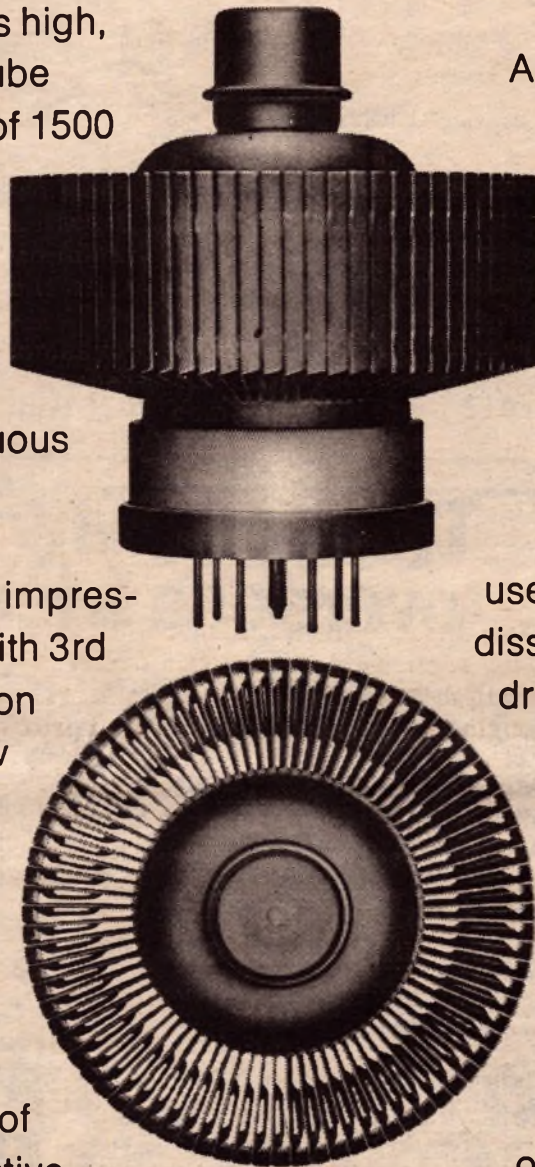
EIMAC's new 8877 high-mu triode delivers over 1500 watts output at 220 MHz. (2000 watts output at 30 MHz is easy)

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

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

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

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



Eimac
division
varian

Worldradio

NEWS of the month of September, 1972 - 50¢

"Ham" Craze Hits Jordan

King Leads Way to Radio Wave Hobby

BEARCA, Jordan (UPI)—When King Hussein took to the radio waves as Jordan's first "ham" operator, he little realized he was starting a craze in his kingdom. The King began operating about two years ago on 27.1 in a radio set given to him as a gift by his English-born wife, Queen Muna. Soon, Muna herself joined in at 11.7.

Now, amateur radio stations are sprouting up all over Jordan and girls are as busy as boys on the hobby. Despite its mechanical implications, more than 100 girls in Beirut have started working in to the ether. They are mostly daughters of soldiers living in the garrison town 25 miles northeast of Amman.

In the boys' school a station is already in operation and from age 8 have been making new friends in Europe, the United States and Australia.

The girls get in on the act once a week when a class of 31 girls moves to the boys' school to take instruction from Sgt. Mahmud Mousa of the Royal Jordanian Signals. Hanash Mohammed Bahar, a 15-year-old class member, said, "I want to exchange views with my contemporaries from other countries and give them a true picture of our country in the Middle East."

Another student in the class is Palmi, a teacher from the girls' school. He said, "This is a new thing in Jordan and I want to be one of the boys to take it up."

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Here's how to figure orbit time: Period of orbit is 1.15 minutes. Inclination: 107.76 degrees. Change per orbit: Add 29.81 degrees. Beacon frequency: 28.450 MHz.

Regular croning times from South to North: Date Longitude West Time (GMT) 1 323 07 1814 09 2 331 10 2020 14 3 030 30 2315 48 4 050 41 0000 42 5 070 22 0205 06 etc.

(From "RF Coaster" Dayton AR, AA, etc.)

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An International Newspaper
Second Year of Publication

This year why not invite your overseas friends over here?

Too expensive for them? Maybe not, this year. Because, this year, there are made-to-order bargains to lure them here. Bargains in trans-ocean sea fares, and air fares, just-for-them. And reduced bus, rail, and air rates, once they arrive. And lots more. But some of them may not be available next year. And many of them must be arranged before your friends leave the other side. So write to them. Tell them to talk to their travel agent or overseas carrier. (That way, they can get all the details.) Then add one more thing. Tell them America is not so big and bustling that no one will have time for them—and you'll be around to show them the ropes when they arrive. Now sit back and wait. With any luck, you may soon be showing them America as you see it. But better be prepared for one surprise. You may soon also be seeing America as they see it—rediscovering it through their wide and startled eyes.

Around the World
Worldradio
"the people paper"

i **X**

INFORMATION

WORLD RADIO is published monthly by Armond M. Noble, WB6AUH, and friends. Subscription rates: \$5 per year, \$9 for two years, \$13 for three years, and \$50 for life. IRCs, mint stamps and local currency will be accepted from overseas readers.

Correspondence regarding article contributions and subscriptions should be addressed: WORLD RADIO, 2509 Donner Way, Sacramento, CA 95818, USA. Phone-(916) 456-6725. Advertising inquiries are invited.

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WORLD RADIO is two-way communication. Send in Amateur Radio news and information. Share your

knowledge and experience with your fellow amateur and "World-radio" reader. Photographs will be cared for properly and returned. We are most interested in your suggestions and comments. We would appreciate being placed on the mailing lists of club bulletins.

WORLD RADIO has a Swan 270 Cygnet (220v.) 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 thankfully received.

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Dan Turk, WA6JRP
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The medical training and knowledge that is HOPE is indeed a priceless cargo. It is delivered daily aboard the hospital ship S.S. HOPE or through important medical shore programs on four continents.

Help us deliver HOPE to those who have none.

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PROJECT HOPE

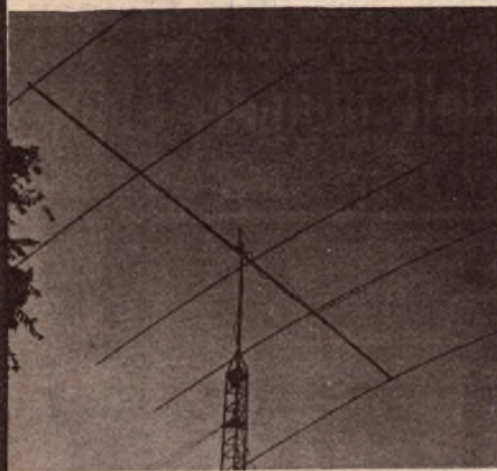
Dept. A, Washington, D.C. 20007

ANTENNAS

WILSON ELECTRONICS

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Nothing will beat a full size beam for gain. Ask the ham who has 250 or 300 countries what type of antenna he uses.



W7CVD's 5 ELE. M520

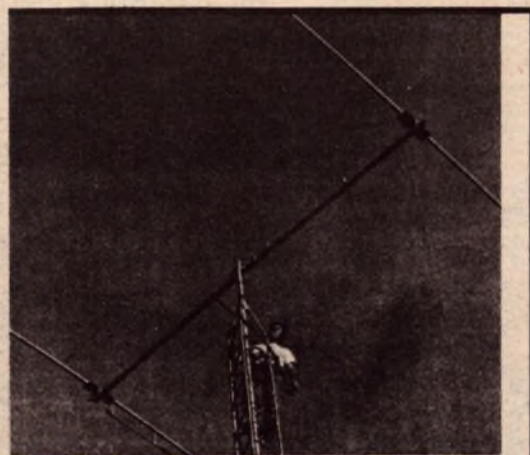


MACHINED 18" BOOM COUPLER FOR 30 TO 40 FT. .065 WALL BOOMS



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

7 ELE. 20 METER BEAM	
GAIN	14DB
FRONT TO BACK RATIO	26DB
BOOM LENGTH	58.5 FT.
3" OD .250 TO .065 WALL	
MAX. ELE. LENGTH	36 FT. 1 IN.
SWR	1.1 TO 1
WIND SURFACE AREA	13.8 SQ. FT.
WIND LOAD (80 MPH)	340 LBS.
WIND SURVIVAL	100 MPH
TURNING RADIUS	34 FT.
NET WEIGHT ASSEMBLED	135 LBS.
6 ELE. 15 METER BEAM	
GAIN	13DB
FRONT TO BACK RATIO	26DB
BOOM LENGTH	32 FT.
3" OD .065 WALL	
MAX. ELE. LENGTH	24 FT.
SWR	1.1 TO 1
WIND SURFACE AREA	7.7 SQ. FT.
WIND LOAD (80 MPH)	190 LBS.
WIND SURVIVAL	100 MPH
TURNING RADIUS	20 FT.
NET WEIGHT ASSEMBLED	65 LBS.



40 METER 2 ELE. BEAM

2 ELE. 40 METER BEAM	
GAIN	5.5DB
FRONT TO BACK RATIO	17DB
BOOM LENGTH	16 FT.
3" OD .065 WALL	
MAX. ELE. LENGTH	66.5 FT.
SWR	1.1 TO 1
WIND SURFACE AREA	10 SQ. FT.
WIND LOAD (80 MPH)	230 LBS.
TURNING RADIUS	34.5 FT.
NET WEIGHT ASSEMBLED	67 LBS.
3 ELE. 40 METER BEAM	
GAIN	8.5DB
FRONT TO BACK RATIO	20DB
BOOM LENGTH	38 1/2 FT.
3" OD .250 TO .065 WALL	
MAX. ELE. LENGTH	69 FT.
SWR	1.1 TO 1
WIND SURFACE AREA	15 SQ. FT.
WIND LOAD (80 MPH)	335 LBS.
TURNING RADIUS	40 FT.
NET WEIGHT ASSEMBLED	145 LBS.

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.

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.

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

3 ELE. 20 METER BEAM	
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.

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.

All our beams come complete with adjustable reactance tuned gamma match network which can handle 4,000 watts plus on CW and SSB.

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

All W7GVA beam elements are constructed of the finest aluminum available, 6063T832 and 6061-T6 both top quality alloys.

All Wilson Electronics beams have a 3" O.D. boom made of top grade aluminum 6063-T6.

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

QUALITY MONO & DUO BAND BEAMS AT LOW PRICES

Wilson Electronics offer a complete line of Mono & Duo Band Beams. With our purchasing power on large quantities of aluminum and low overhead, we can give you a rugged heavy duty top quality beam for a much lower price than any other manufacturer.

WILSON MONO BAND BEAMS

Model No.	Beam Description	Price
M340	3 ELE. 40 METER BEAM (full size)	\$375.00
	Gain 8.5 DB. Boom length 38.5 ft. 3" OD .200 wall to .065.	
M240	2 ELE. 40 METER BEAM (full size)	\$189.95
	Gain 5.5 DB. Boom length 16 ft. 3" OD .065 wall.	
M720	7 ELE. 20 METER BEAM	\$389.95
	Gain 14 DB. Boom length 58.5 ft. 3" OD .200 wall to .065 wall.	
M620	6 ELE. 20 METER BEAM	\$299.95
	Gain 13 DB. Boom length 50 ft. 3" OD .200 wall to .065 wall.	
M520	5 ELE. 20 METER BEAM	\$169.95
	Gain 12 DB. Boom length 40 ft. 3" OD .065 wall.	
M420	4 ELE. 20 METER BEAM	\$139.95
	Gain 10 DB. Boom length 30 ft. 3" OD .065 wall.	
M320	3 ELE. 20 METER BEAM	\$ 89.95
	Gain 8.5 DB. Boom length 20 ft. 3" OD .050 wall.	
M715	7 ELE. 15 METER BEAM	\$169.95
	Gain 14 DB. Boom length 40 ft. 3" OD .065 wall.	
M615	6 ELE. 15 METER BEAM	\$139.95
	Gain 13 DB. Boom length 32 ft. 3" OD .065 wall.	
M415	4 ELE. 15 METER BEAM	\$ 89.95
	Gain 10 DB. Boom length 20 ft. 3" OD .065 wall.	
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	Gain 13 DB—15 12 DB—10. Boom length 32 ft. 3" OD .065 wall.	
DB44	4 ELE. 15 & 3 ELE. 10 INTERLACED BEAM	\$109.95
	Gain 10 DB—15 8.5 DB—10. Boom length 20 ft. 3" .065 wall.	

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Liberian Epidemic

by Larry Cotariu, WA9MZS

as told by David Urfer, EL5B-WA7ROJ



DECORATION — Mrs. Mai Padmore, (left) Minister of Health and Welfare decorates Mr. David Urfer, a ham operator for the humanitarian role he played in assisting the Ministry of Health and Welfare to bring the recent Lassa Fever epidemic in Lofa County under control. The Minister decorated Mr. Urfer on behalf of President Tolbert.

For David Urfer, WA7ROJ, (formerly EL5B) it was truly a case of being in the right place at the right time that resulted in his handling emergency communications for 86 consecutive hours.

Dave had been a ham for less than a year and was a maintenance supervisor for a Lutheran hospital in Zorzor, Liberia when the Lassa fever epidemic struck. Three years earlier the virus had first struck in Lassa, Nigeria, thus the name "Lassa Fever".

The date was 12 April 1972, Easter, when Dave was on the African Net with Walcott "Ben" Benjamin, EL2BA, and others. During the casual round table Dave mentioned that there was an outbreak of some sort in Zorzor and that the doctors, Dr. Paul Merten and Dr. Joe Baum, were not sure of what it was. Ben notified the Minister of Health and Welfare. A letter had been mailed but the radio proved to be time saving.

After the authorities were notified, doctors and specialists were brought in.

The Lassa Fever episode struck nine people in Zorzor and killed four of them. Of the five survivors, two became deaf.

One of those who died was an American nurse, Miss Esther Bacon, of Haurden, Iowa. Dave has high praise for her saying that she was as close to being a saint as anyone he ever knew for "Esther gave 30 years and her life for humanity".

Dave wishes to express his deep appreciation to Eloise Duncan, EL2AQ, Walcott Benjamin, EL2BA, Dr. Gadegbeku; Bruce Adams, EL2CG, and others in Monrovia, Liberia for relaying traffic from his QTH in Zorzor. He also thanks Charlie Wells, K4SKI, of Greenville, N. C., for doing a wonderful job in contacting doctors for advice on how to treat Lassa Fever.

Dave believes special mention should be made of the many hams on the U. S. east coast who were very polite and helpful by clearing the frequency for him.

Now back home, Dave says he keeps the award from Liberian President William Tolbert in his Missoula, Montana radio shack to remind him of all his Liberian friends.

(As it appeared in the "LIBERIAN STAR")

Ham - Operator Decorated By Government

MRS. Mai Padmore, Minister of Health and Welfare recently on behalf of President Tolbert and the Government of Liberia conferred upon Mr. David Urfer, the distinction of Knight Official in the Humane Order of African Redemption for the outstanding and humanitarian role which Mr. Urfer had played as an amateur Radio Operator in assisting the Ministry of Health and Welfare to bring the recent Lassa Fever epidemic in Lofa County under control.

Mr. Urfer, who is a missionary attached to Zorzor Hospital, had stayed at his amateur radio set for over 86 consecutive hours, co-ordinating communication between the health authorities U. S. A.

Minister Padmore expressed personal gratitude of the President as well as that of the people of Liberia for Mr. Urfer's heroic efforts without which, she said, the epidemic would not have been controlled as quickly as it was. She also stated that although after seven years Mr. Urfer was leaving Liberia for good,

the Liberian people would always remember him.

The ceremony, which was held at the home of Liberian Radio Amateur Association's President. H. Walcott Benjamin, was attended by many members of the Association, including Mr. Swell Brewer, Mrs. Eloise Duncan, Mr. Bruce Adams and Brother Jerome of Catholic Mission.

Mr. Benjamin, in brief remarks during the ceremony, also expressed appreciation to Mr. Charles Welles (K4SKI) of Greenville, North Carolina, who was a contact point for doctors in the U.S. during Trans Atlantic communication in connection with the epidemic. Mr. Benjamin also indicated that this incident underscored the importance of amateur radio not only as a hobby, but as a valuable communication service in times of breakdown in public communication facilities.

(Reproduced from "THE LIBERIAN AGE")

Lassa Fever Epidemic Control Measure

David Urfer Receives Kinghood For Heroic Role

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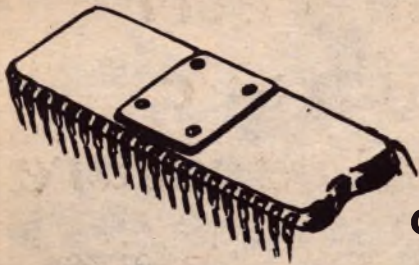
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David Urfer, WA7ROJ - EL5B



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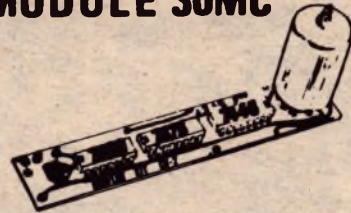
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mountain matrimony monitored

Mountain Climb and Amateur Radio

by Lou Huber, W7UU

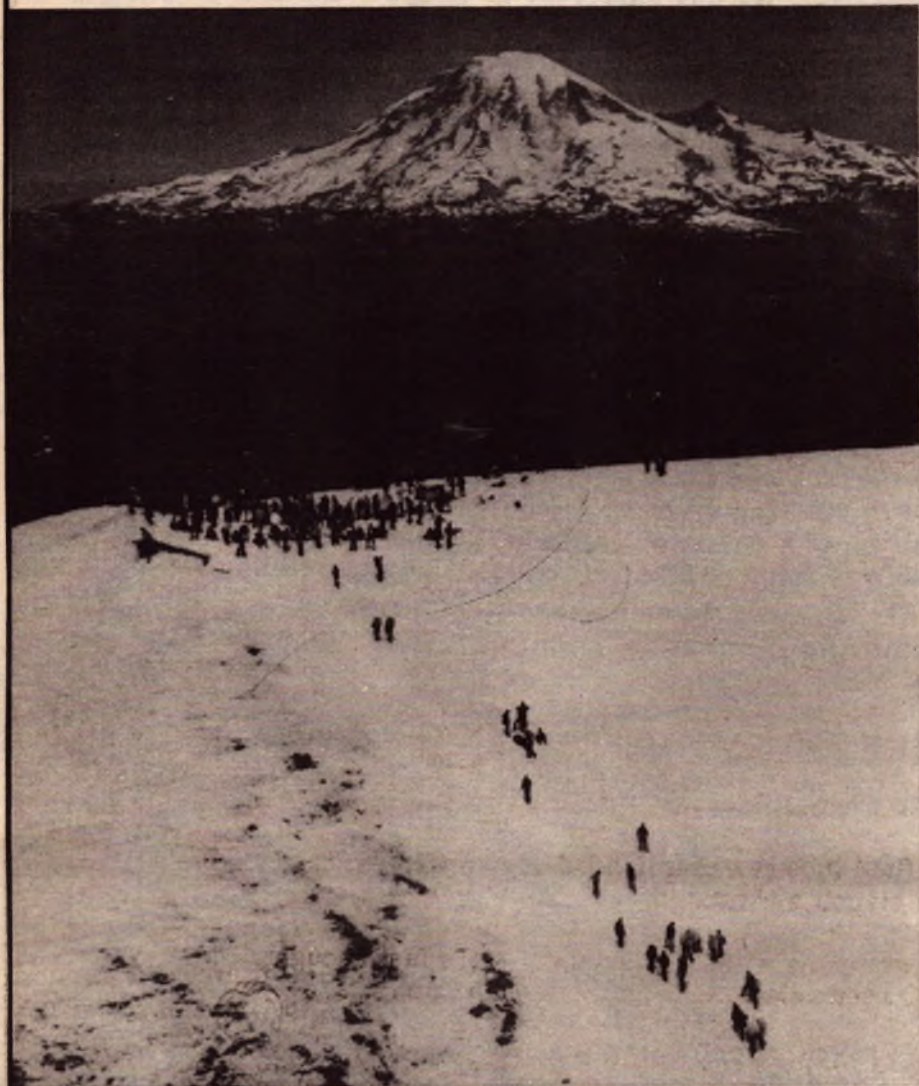


Photo: Dean Spuler, staff photographer, "Yakima Herald-Republic"



While the main party of climbers was assembling, preparatory to setting out from base camp for the seven-mile hike "straight" up" to the summit, an advance party went ahead--among them E. J. "John" Adams, W7GZN, who had made the same climb every year for the previous six years. With him were his two "harmonics", Kathie and Robbie, as well as Ralph "Sarge" Hubbard, K7RRR, and Dave and Bill Buchanan of the Central Washington Mountain Rescue Council (Cascadian Club) of Yakima. The latter two, brothers, are both expert mountain climbers and were fully equipped for rock or ice rescues.

The above advance party stayed atop Mt. Adams Friday and Saturday nights, 28 and 29 July, and reported via 2 meters on weather conditions as the hour of the mass climb approached. W7GZN and K7RRR reported that the view from Mt. Adams was "tremendous"--with a clear view of 14,400-foot Mt. Rainier, Mt. Baker, Mt. St. Helens in Washington plus Mt. Hood, Mt. Jefferson and "The Sisters" in Oregon. At night the lights of Seattle, Tacoma, Olympia, Packwood, Goldendale and Yakima in Washington and Portland, The Dalles and Hood River in Oregon could easily be seen.

A wind of about 60 mph was blowing atop Mt. Adams on Saturday night but it was clear. At 2:00 a. m. Sunday, the official start of the mass climb was signaled by K7RRR with the launching of a parachute flare, which was seen by the many climbers as base camp as well as from many other points in the Pacific Northwest.

The more than 400 climbers were separated into groups of 21 each, with leaders chosen from the most experienced mountain climbers of the several climbing clubs represented. Seven miles doesn't seem very far for a hike, but when it is from an elevation of 5,500 to 12,307 feet it takes from eight to twelve hours. The wind of the previous evening calmed to about 20 mph and the temperature by mid-day on Sunday was 38 degrees atop the mountain.

Progress of the climbers was reported frequently on 2 meters from the advance party on the summit and received in Yakima at several ham stations--Earl "Sarge" Davis, K7UIT; Mike Judy, W7CCY, and Larry Fitzpatrick, K7VAS. All three, of course, operated on 4 MHz as well, for contact with WA7GVB at base camp as with other hams throughout the area--including close contact with the Northwest Amateur Monitoring Service on 3970.

Climax of the climb was of course the wedding at the summit, occurring between 1 and 2 p. m. Sunday, with the Rev. Ron Leher of Sunnyside, Washington, performing the ceremony. The bride was Jennie Talbot of Virginia and the bridegroom was Dary Reed of Yakima. Broadcasting stations in Yakima got the services "live" via 2 meters from the ham stations listed above, and the ceremony was taped by W7CCY and replayed for further broadcasting at later times elsewhere. Perhaps the widest coverage may have been that of KIRO (radio) in Seattle, which took it from W7UU (author of this story) and broadcast it two days later. One

They've been doing it every year beginning in 1966--climbing 12,307-foot Mt. Adams (in the State of Washington)...and they do it by the hundreds in one big mass climb.

Ham radio has been there along with everyone else--providing communication which would be invaluable in case of an accident. This year there was something else--a wedding at the top of the mountain--likewise fully covered by ham radio.

The Yakima (Washington) Chamber of Commerce sponsors this annual mass climb, while the Yakima Amateur Radio Club W7AQ, provides the communication. Many other hams in the Pacific Northwest provide back-up and auxiliary help. So do mountaineering groups--for this is mountain-climbing country "of the first water"--making it a very worthwhile training event.

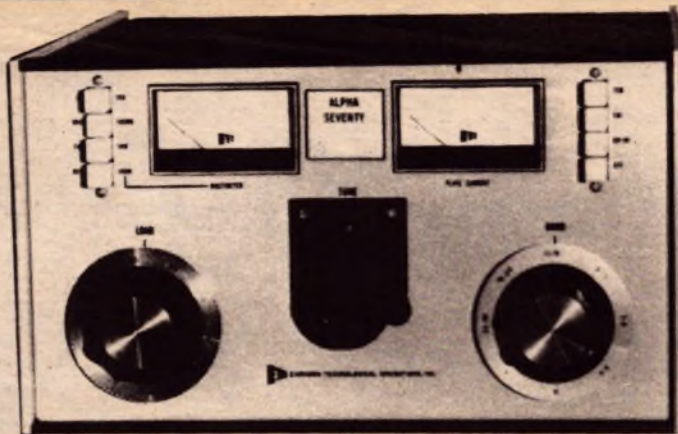
More than 400 climbers set out on the 1972 climb, which covered two days --29 and 30 July. A few dropped out at various stages, but 385 made it to the top. There were no accidents and the weather was good: a very successful climb, with the wedding coming off on schedule (and transmitted "live" on 2 meters to a Yakima broadcast-radio station).

Transportation to the 5,500-foot elevation of the base camp at Timberlane on Mt. Adams was provided by the Mountaineers Jeep Club of Yakima. Standing by at base camp with full crews and equipment (which fortunately was not needed) were the Central Washington and the Hood River mountain rescue councils and the Yakima Search and Rescue Explorer Scout Post.

Also at base camp was the camper mobile station WA7GVB "manned" by Patricia Miller of the Yakima Amateur Radio Club. "Patti" spent four days there in that rather hot location--cooled somewhat by a refreshing nearby snow bank. WA7GVB operated on both the 4-MHz phone (SSB) frequencies as well as on 2 meters.

Mt. Adams is a comparatively easy mountain to climb, despite its respectable height of 12,307 feet; nevertheless, accidents can and sometimes do happen. Ham radio would have brought swift help in case of mishap.

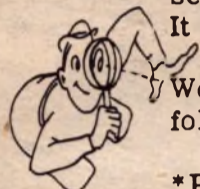
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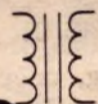
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*TUBE: Eimac 8877/3CX1500A7 ceramic-metal triode, air cooled with 4000 volts on plate. A conservative 1500 watts of plate dissipation. Only 65 watts drive for the legal limit.

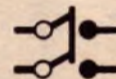


*1500 WATT continuous-duty power transformer: Tape-wound core of grain-oriented steel cuts size and weight to 40% of conventional design.



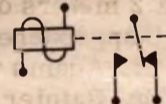
*25MFD, 4000 volt oil-filled polypropylene filter capacitor: (modern design yields superior quality and size).

*RUGGED BANDSWITCH: with 20 amp silver contacts and 6000 volt insulation.



*VACUUM VARIABLE tuning capacitor: permits efficient operation over wide frequency.

*Grid EXCESS CURRENT RELAY; Will "kick-out" if final tube is under-loaded or overdriven. A warning before "flat-topping" occurs - Protects input circuit and tube.



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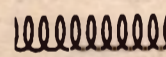
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Having been fortunate enough to be the International winner of the Brasilia Contest, held to commemorate the 11th anniversary of the founding of the new capital of Brazil, I was advised by the LABRE in Brasilia that arrangements had been made for my wife, Margot, and I to leave New Zealand in April and travel to Brasilia to receive the gold trophy.

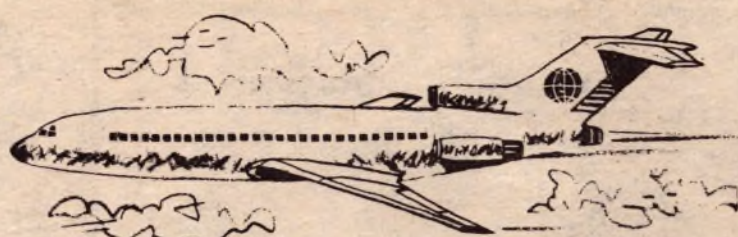
Our initial flight was to Tahiti, timed to leave Auckland International Airport for Papeete at midnight. What a wonderful thrill when who should show up to wish us bon voyage, but Mark Churton, ZL1TB, immediate past president of N. Z. Chapter 67 of CHC, and first winner of the "Amateur of the Year" award. It was very thoughtful of Mark.

We were met at Faaa International Airport by Leon Cochet, FO8BJ, President of the Radio Club de Tahiti, and Victor, FO8CX. During that afternoon Victor was kind enough to take me to meet many of the local FO8 amateurs, and we finished up at the Club Station, FO8AA, from where I worked several ZLs.

That evening we left for Santiago, Chile, having a short refueling stop at Easter Island. This island (Rapa-Nui, as it is known to the locals) is steeped in history, and was made famous by Thor Heyerdahl's book "Aku-Aku". It was also the site of one of the original DXpeditions, CE0AA, back in 1953.

As a DXer I was somewhat frustrated when we flew over the island of San Felix, during the recent DXpedition to that rare spot, and of course was unable to work it. However, after an overnight stop in Santiago, it was on to Montevideo where we were met at Carrasco airport by Horace Acosta, CX3BH, and his charming wife, Martha, and family.

Uruguay, until a few years ago, was one of the most stable of the Latin American democracies, but galloping inflation and the murderous activities of the urban guerrilla organisation, the Tupamaros, have brought this country into near chaos. In spite of such, however, the people were most wonderfully friendly, and due to the rapid devaluation of the peso, it is a shopper's paradise. The summer resort of Punta del Este had some of the most sumptuous and luxurious houses I have seen anywhere in the world, almost invariably owned by rich foreigners, including the legendary Aristotle Onassis.



ZL to PY

by Bruce Barnard, ZL1AJU



At the Uruguyan Embassy in Brasilia. (L to R) Remy Toscano, PY2VE; Brice Barnard, ZL1AJU, and Horace Acosta, CX3BH

Taken in front of the Alvorada Palace, the President's residence in Brasilia. Margot Barnard and OM Bruce Barnard, ZL1AJU

Horace, CX3BH, a civil engineer by profession, was the runner-up to me in the contest, and he and Martha were to accompany us all the way to Brasilia. They were most wonderful hosts, and very kind to Margot and me during our week in Montevideo. They organised a meeting of the local CX hams at their most modern and well-designed home, among whom was Neil Watkins, CX7BF, a fellow New Zealander, but now residing permanently in Uruguay.

I couldn't leave Montevideo without mentioning the visit with Jimmy Miller, CX5AF. I worked Jimmy over 17 years ago in the old 20 Metre AM days. It was a great pleasure to meet him personally. His shack was one of the best-equipped I have seen anywhere, and we spent the evening viewing a full length colour Cinemascope movie in his own private cinema which seats 40 persons. He commutes regularly to his 10,000 acre ranch with his own twin-engined aircraft. He has the ultimate in status symbols--his own permanent radio beacon navigation aid at his ranch airstrip!

On to Porto Alegre, and our first landfall in Brazil. We were whipped out of the customs formalities queue by Demetrio Xavier, PY3DI, and his committee.

Margot was presented with a large bouquet of red roses, and we had our first taste of the PY V. I. P. treatment. So much so that our jet was delayed some considerable time waiting for ZL1AJU and XYL to finally clear with the PY3 boys.

However, we eventually departed and arrived at Congonhas airport in Sao Paulo city to be met by Leur Lomanto, PY6ACW, and his charming wife, Claudia. They had come all the way from Brasilia that day, and were to be our guides and mentors for most of our stay in Brazil. Also at the airport was Les Campos, PY2ERS, the Brazilian winner of the Contest, and to whom we had spoken many times on 20 metres. A quick trip to check into our hotel, and then out to dinner and the first of our many night clubs.

The next day we visited LABRE Headquarters in Sao Paulo, being made most welcome, and operated the official Club Station PY2AA for a short while.

After a visit to a huge EXPO fair we met the legendary DX combo Alex and Eva Perenyi, PY2PA-PY2PE, at their home. I'm sure anybody who operates the DX bands at all will have worked either or both of this team. They

were equally well known a few years back as CN8MM operating from Casablanca.

Also at Eva's home we met Tom Roesler, PY2DFR, and his wife, Elizabeth. Tom is personnel manager for Volkswagen, responsible for 30,000 employees. At the present time the VW factory in Sao Paulo is turning out 1,500 vehicles per day. Tom and Elizabeth intend to visit New Zealand next year, when I hope I can repay in some small way the hospitality they extended to us.

Sao Paulo is the largest city in Brazil, and the fastest growing city in the world. It is a true metropolis, and throbs with a diversified industrial complex. In many ways it was the most unforgettable city we visited, and one could not help but be impressed with the air of industry and purpose that pervaded this great city and its inhabitants. Unique to this city is the Butantan Institute which houses more than 16,000 live snakes as well as thousands of spiders and scorpions. It extracts their venom regularly, and prepares vaccines which are made available at very short notice whenever needed.

BRASILIA: I feel I must devote a separate section to this city, as this was the *raison d'etre* for the



(L to R) Tom Roesler, PY2DFR, and XYL, Elizabeth; Margot Barnard; Eva Perenyi, PY2PE, and Bruce Barnard, ZL1AJU.



(L to R) Martha Acosta and OM Horace, CX3BH, Claudia Lomanto and OM Leur, PY6ACW/2.



(L to R) Leur Lomanto, PY6ACW/2; Gomes de Magalhaes, PY1AMB/2; Leo Etchegoyan, PY2FFU; Thales Campos, PY2ERS, and XYL.



entire trip. We were met at the airport by Leo Etchegoyan, PY2VE, who is the Sectional Director of LABRE, and many other Brasilia hams, to say nothing of the floodlights and TV cameras! Then we were whisked out to the British Embassy to a cocktail party in our honour, and more TV cameras.

Afterwards we were taken on a tour of Brasilia at night by Remy Toscano, PY2VE, who is a doctor and has lived there since the original foundation of the city. Coincidentally, I worked Remy nearly 20 years previously when he signed PY3AKG in Porto Alegre. Leo picked me up at the Hotel Nacional shortly before 1 a. m. local time for an arranged schedule with Roy Needham, ZL1KKG. We operated from PY2AAA, the official Brasilia Club Station, and arrived back at the hotel about 2 a. m., very tired.

After breakfast we were taken on a tour of the city, and what a fantastic city it is. It would be the most modern and futuristic city in the world, and its architecture and lay-out would appear to be straight out of the pages of science fiction.

Of course the highlight of the whole trip was the official presentation ceremony of the trophies

and certificates at the Ministry of the Interior. All the top brass, including the Governor of Brasilia were there. The engraved gold plaque I received is one of my most treasured possessions.

All speeches, of course, were in Portuguese. When my turn came to reply, it was through the medium of my good friend Leur Lomanto, PY6ACW/2, who was interpreter. I presented Leo Etchegoyan, PY2FFU, a carved Maori tiki with paua inlay, together with a New Zealand flag, as a small token of appreciation for all their most wonderful kindness and hospitality.

I couldn't possibly leave this section on Brasilia without special reference and a tribute to Leo, PY2FFU. By occupation he is personal adviser to the President of Brazil, and an exceedingly important and busy man. During our stay in his country he left no stone unturned to see that we were well looked after, and would see as much as possible in the time we had available. Leo is a most sincere and charming man, and through his influence we were privileged to visit Alvorda Palace, the president's residence in the capital.

On our last night in Brasilia we were guests at a dinner in our

honour arranged by the local hams. It was a most moving and heart-warming occasion, and they presented us with a magnificent volume of Brazil complete with colour photographs, and they all autographed the fly leaf; this is truly a treasured possession.

At the kind invitation of Antonio Lomanto, Jr., PY6KL, a Senator and Governor of Bahia, we spent a week up in sub-tropical Salvador, staying at his town house. He and his charming wife were the very epitome of hospitality, and we were able to unwind after having a fairly hectic time.

Salvador was the original capital of Brazil, and is a most delightful city. Lasting impressions are of the complete racial integration between the white and dark skinned people, and I saw no evidence of a colour bar in any form at all.

It was a very pleasant flight back to Rio de Janeiro, and we were met at Galeao International Airport by Al da Silva, PYINAX, and a group of PYIs. That night there was a special reception put on for us by the local LABRE, headed by Petronilha Das Neves, PY1CAI, a most charming YL who is Sectional Director of LABRE in Rio. Their clubrooms are many floors up and house the club stations PYIAA and PYIAAA.

Afterwards we were taken to a Copacabana night club, of which my most lasting memory is a hair-raising drive by Werner Muller, PYICAD, to his fabulous QTH 800 feet above sea level to keep a schedule back home with Roy Needham, ZL1KKG.

Rio de Janeiro is surely one of the most uniquely beautiful cities of the world. The views from the Corcovado and Sugar Loaf mountain at night were truly magnificent. I felt that Copacabana beach was somewhat overrated; we have equally good beaches here in New Zealand. The density, noise and pollution of the traffic had to be seen to be believed, rules of the road being almost non-existent.

I could not leave my mini travelogue of Brazil without mention of Petropolis, a city in the mountains north of Rio. We met nearly all the local hams and were extremely well looked after. A landmark is the Hotel Quitandinha, originally built as a superb gambling casino, it is now managed by Luiz Dos Anjos, PYIDPA, who overwhelmed us with hospitality.

In retrospect, my most lasting impressions are of the wonderful friends we made among the PY amateurs we met. Many of them we had already spoken to frequently via Amateur Radio; but to meet them personally and cement the friendships made is a memory we will treasure forever. I just cannot speak too highly of their friendliness and hospitality at all times. We were treated just like visiting royalty, accommodated in the best hotels, had a chauffeur-driven limousine available 24-hours a day. In other words, it was the "red carpet" treatment throughout.

Amateurs are much more highly regarded in Brazil than in New Zealand, enjoying much direct government support. They are very contest minded and have many local domestic contests of various types, but are now sponsoring more of the international contests, e.g. the annual I. T. U. Contest each May.

The military government of Brazil operates as a benevolent dictatorship, and President Emilio Medici is very highly regarded by the people, and is rapidly developing the resources of this vast country.

To sum up, I would agree with author John Gunther in his book "Inside South America" and certainly describe Brazil as 'an awakening giant'.

Helmut Hochberg, DL8ST

A fellow member of the Amateur Radio fraternity, Dr. Helmut Hochberg, DL8ST, of Stuttgart, Germany became a silent key recently. Helmut, as he was affectionately known by all who were fortunate enough to know him, lost a six year battle against cancer.

He was born in 1910 of German parents in Riga, Latvia, where he grew up, attended the University of Riga, married and lived until the early years of World War II at which time he and his family were transferred to Stuttgart. He possessed a Doctorate in Pharmaceutical Medicine.

Dr. Hochberg had become a Deutsche Amateur Radio Club (DARC) licensed ham late in life, attaining his license in 1970, after he had retired. He was an avid builder of radio equipment and a great DXer who enjoyed working with his QRP (low-power) station.

However, after joining several DX nets and organizations, including the International YL Sidebanders and WORLDRADIO, he did indulge in a linear (within the DARC power limitations) and a three-element tri-band beam which was mounted on the roof of his home during the summer of 1971. He was in the quest for "bagging the rare and big ones", and also to meet his multitude of friends.



Dr. Helmut Hochberg, DL8ST

Helmut possessed an excellent command of English, Russian, Italian, Spanish, Latvian (his native tongue), and of course German (his mother tongue). As a top notch linguist and operator he soon became known throughout the world.

He had a tremendous interest in Amateur Radio activities and had his own personal "people-to-people" program. His activities in club affairs were somewhat limited due to his health, however he sought and enjoyed the association of world-wide radio amateurs, "Statesiders" assigned in Europe and particularly the youngsters who showed an interest in our hobby. Although he was critically ill he cheerfully operated his station from his hospital bed until two and a half days prior to his death.

Dr. Hochberg was buried in one of the beautiful cemeteries overlooking the city of Stuttgart. His funeral was attended by a great many hams, representing DARC and the United States. He leaves a wonderful wife, Erna, two married sons, a married daughter and two grandchildren.

His death was, and continues to be a tremendous loss to those who were closely associated with this fine and generous person. Knowing DL8ST has been one of the rare pleasures in life, one whose memory will always be respected and remembered. Helmut was a top-notch radio amateur and a true gentleman.

by John F. Barrows, W6ECS/DL5HU, and Adda S. Barrows, WB6EPQ/DA1BO

International Student Exchange Programs

Student International Service Foundation (SIS) is one of the world's most successful people-to-people cultural exchange programs. Since 1958, through SIS, more than 60,000 students have lived with foreign families, both learning and teaching new ideas, customs and ways of life.

SIS currently offers two exchange programs for American students - the Regular Reciprocal Exchange Program and the Athletic Reciprocal Exchange Program. Both operate solely between the United States and Scandinavia (Finland, Sweden, Norway and Denmark).

The Regular Reciprocal Exchange Program, as its name states, offers the American student an opportunity to visit and live in a Scandinavian community (usually a suburban city) and in turn to play host to a Scandinavian student from that community. The sequence of visits is interchangeable.

Although SIS usually tries to set up a "home-for-home" exchange, it has been found that even a town-for-town exchange is quite satisfactory. The complete program lasts for one month - a 24-day stay with the host family and three days each in Copenhagen and London.

The Athletic Reciprocal Exchange Program was developed by SIS in 1969 to give high school athletes the opportunity to participate in international clinics and polish their skills through new coaching slants.

The sports included in this program (presently only offered between the U. S. and Sweden) are soccer, wrestling, basketball, swimming, track and gymnastics (with the latter three being for girls too).

As with the Regular Program, the visiting student-athlete spends 24-days with a host family, but scheduling is arranged so that several participants in the same sport visit the same community.

The student-athletes not only compete against their Swedish counterparts, but are given special coaching (by both Swedish and American experts) in a four-day-a-week sports clinic. With the exception of shoes, SIS supplies all athletic uniforms and equipment.

Thanks to its dozen years of experience, SIS has been able to structure its programs so that the visiting student absorbs as much as possible about his host family rather than a guest (with all the benefits and responsibilities of a familiar relationship), thus enabling him to ingest more of the spirit of a country than would be possible on a hotel/tour type of visit. Since English is the required second language throughout Scandinavia, communication barriers do not exist. The students (ranging in age from between 15 and 21) are given enough information about the foreign country to enhance their understanding without crippling the spirit of adventure.

The cost of the Regular Reciprocal Exchange Program is \$495, not counting spending money or insurance. The price of the Athletic Reciprocal Exchange Program is \$595. Naturally, the Program takes place during summer vacation.

Further information on SIS and the Reciprocal Exchange Programs may be obtained from the Swedish National Tourist Office, 505 Fifth Ave., New York, NY 10017.

Overseas Study Competition

The Institute of International Education announces the Fulbright-Hays grants for graduate study or research abroad and for professional training in the creative and performing arts.

The purpose of these grants is to increase mutual understanding between the people of the U. S. and other countries through the exchange of persons and skills.

About 550 awards to 37 countries are available for 1973-74. Applicants must be U. S. citizens who will hold bachelor's degree or its equivalent before the beginning day of the grant and, in most cases, be proficient in the language of the host country. Creative and performing artists need not have a B. A., but must have four years of professional study or experience.

Selection is based upon the record of the applicant, the validity and feasibility of his proposed study plan and personal qualifications. Preference is given to candidates between 20 and 35 years of age who have not had prior opportunity for extended study abroad.

Application forms may be obtained from Information and Reference Division, Institute of International Education, 809 United Nations Plaza, New York, NY 10017, or from any of I. I. E.'s regional offices, before Oct. 15. Completed applications must reach the office by November 1.





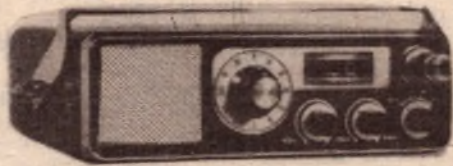
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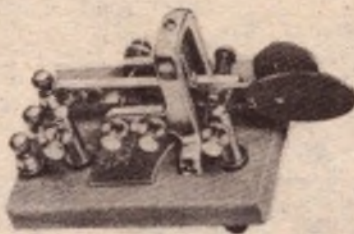
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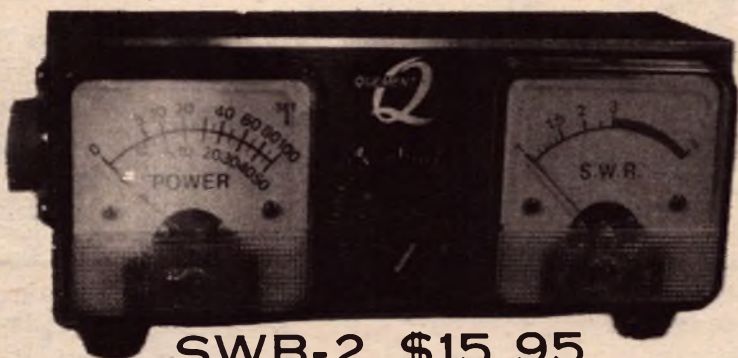


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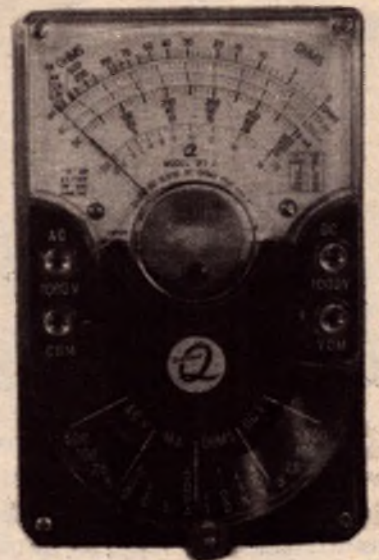
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Strictly for the birds....and hams



Strictly for the hams...and birds

by Al Shawsmith, VK4SS

Take a good "peeko" at the picture to the left. (Supplied by courtesy of the "Courier-Mail" newspaper of Brisbane, Australia.) The editor or journalist who set up the caption, "strictly for the birds -and hams" named it more aptly than he was probably aware.

This finger of sand away out in the Coral Sea and called Mellish Reef is awash in rough weather and consequently not even for the birds. No self-respecting adventurer, Utopian seeker, or even a desperado would give it a second thought or look. However, the "powers that be" in Amateur Radio are likely to call it a "country" and ratify it for DXCC.

On approximately the 18th of July four VK ops made a landfall and set up their rigs. All beams, were for a short moment in AR history, turned to this "new" country. In the ensuing 48-hour "hassle" 11,000 QSOs were made. For what main purpose? For fun or for the DXCC "rat-racers" who pin their status in AR to that beanstalk-like but teetering Totem Pole.

A little fun and games is, quite rightly relished by the most discerning hams and of course no one would question the courage and the operating ability of those who made it to Mellish Reef, but too much of this type activity does not go down as well as it used to. The more responsible AR societies and groups now no longer recognize these expeditions and regard the "new country" claim as a euphemism.

Let's be a little less phony and more realistic and define a country as a place which has permanent residents - people to whom we can talk and become friendly. After all, it's a bit hard to communicate with a seagull.

NESTING terns fly about their nests on Herald's Beacon Islet on Mellish Reef in the Coral Sea disturbed by man for the first time in years.

Four amateur radio operators returned to Brisbane early yesterday after having set up their stations and three transmitters in two tents on the small coral islet only a few feet above sea level.

They are Mr. John Martin, of Bairnsdale, Victoria, and Mr. George Down, Mr. Keith Schleicher and Mr. Roy Baxter, all of Brisbane.

In a week, they used the call sign VK9JW to make more than 11,000 contacts with amateur operators in countries around the world.

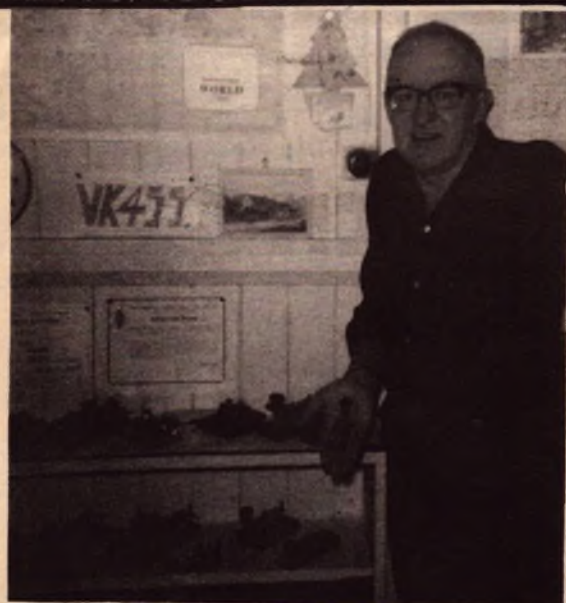
The remote spot was one of the few areas declared a "country" that had not been "worked" by amateur operators.

The demand to make contact with the group was so great at times that reception became unintelligible, and the operators had to stop transmitting.

A gale blew down the aerial beams one day, but amateur operators in about 100 countries said the Mellish Reef party was the best organized expedition they had heard.



MELLISH REEF, a dot in the Coral Sea, 700 miles east of Cairns.



OT Brass Pounder, Al Shawsmith, VK4SS, collects morse keys. What type of keys - any type, age or condition. He is pictured above with part of his collection and holding a 1" by 2" miniature which is not a toy but a real key used in mobile army equipment.

In his collection are "old pumps" used by early landline operators, marine keys salvaged from sunken wrecks, various types of electronic "bug" senders and assortment of keys used by military services.

For over one hundred years the morse key (Marconi called it a "correspondent" and the sender a "writer".) has played a vital part in every newsworthy happening and historical event in both peace and war.

Restoring old "pumps" not only preserves the instrument from its ultimate fate in a scrap yard but keeps alive that part of history in which it was involved.

Most interesting of all, the personality

of its user; tales of devotion to duty, ingenuity, resource, courage - and humor are often brought to light.

Alan Shawsmith, VK4SS, has pounded brass for over 35 years; professionally, in WW II and as a ham. During this period he used many types of keys - now he collects them, mainly for sentimental reasons.

Als says it's a most absorbing hobby and as bad as being bitten by the AR bug. He would like to hear from anyone, anywhere who has a similar interest. Al has keys for swapping or is prepared to buy pieces for his mini-museum.

Those interested in contacting Al may write to him at: 35 Whynot St., West End, Brisbane, Queensland, 4101, Australia.

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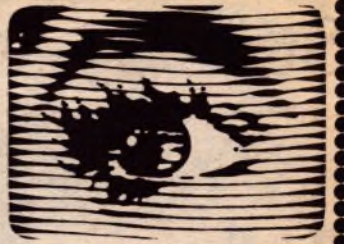
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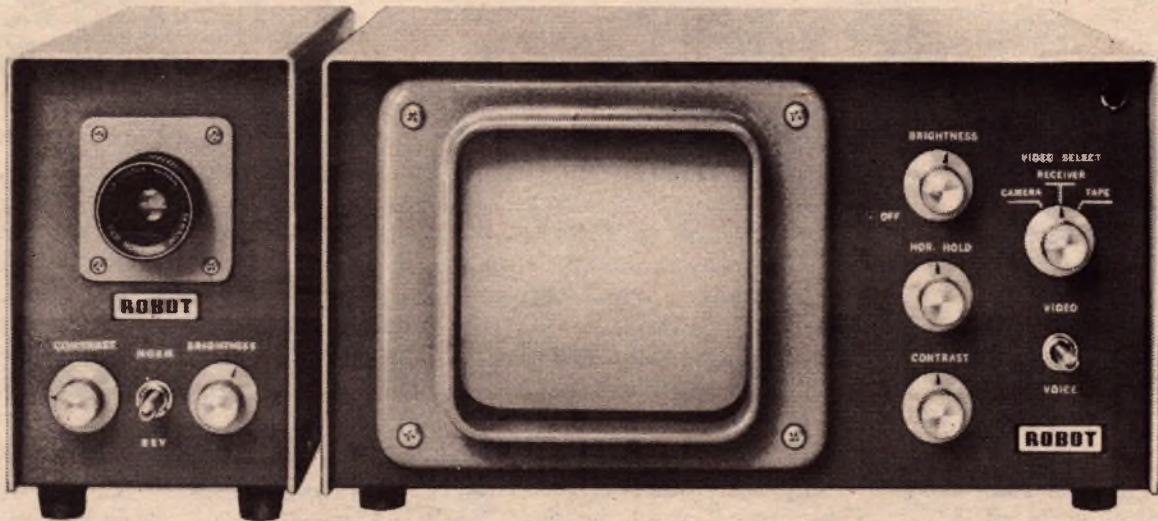
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Exchange Students and Ham Radio

by Ernie Bracy, W1BFA



What possible greater contribution can one make toward future world relations than that of taking a foreign student into one's home for a school year or two?

Through this relationship an understanding of each other's cultural background, daily living habits, likes and dislikes is acquired at first hand. Love is developed between families separated by thousands of miles, families that would otherwise never have heard of each other.

The building of future world relations between countries has a strong fundamental beginning right here in a student exchange association, for it is the youth who are the tomorrows, it is the youth who are the future statesmen, the politicians, the very heart of the years to follow.

This building of the future does not come easily, however. Let us look at a few of the sacrifices that sometimes occur.

A family in Natal, Rio Grande do Norte, Brazil has become acquainted with the PARTNERS OF THE AMERICAS program. Among its agricultural, medical, cultural, educational and industrial programs, somehow it manages to sandwich in student exchanges.

The family wants its children to have the advantages of an education in the United States. They scrape together enough money to meet the cost of getting the student to the U. S. They file all the necessary papers with the Partners President, Dr. Dalton Melo de Andrade, in Natal, director of the program for the state of Rio Grande do Norte.

He transmits the information to the Partner state of Maine where the Maine Partners locate a school and a home for the student. (There are 41 states in the U. S. that have Partner states in Latin America.

In Maine all expenses may be paid by the families receiving the students, i. e. board and room are furnished for the school year.

But what of the warm Latin family relationship? Tears are hot and heavy as the young girl leaves the airport nearest her home for the far-away land, a land the parents may never have had an opportunity to visit. Will she and the others with her be able to find their way in the big Miami airport terminal, change planes in Boston and arrive safely? Will the families really be waiting for them at the other end? What kind of people are they who will be parents to these Brazilian children? What will happen has to happen!

They tell their children upon departure to stay "over there", fight it out and overcome their "soledade" (a special word describing the loneliness or homesickness felt by the Latins.) Can you picture the

scene there as the warm, emotional family ties are strained by the sudden realization that this is the day of departure of the girl?

The father strains to remember why it was that he ever thought this would be a good idea and he can't think of a single reason at this moment. Then, suddenly he realizes his vision, his prior determination for sacrifice so that his children shall have advantages he never had. He remembers his admiration for the advancement of the peoples of the United States and their great wealth of educational facilities.

Yes, this is a day of sacrifice and he, of all the family, must be strong, determined and sure of his decision. Later he can weep over the empty bed, the empty room, the missing member of his family. He can meditate later on the change that time brings to all.

So it is kisses through wet cheeks and the big noisy jet takes off into the sky carrying his precious loved one thousands of miles away, miles that neither can traverse for perhaps 10 months or maybe more.

It is now that Amateur Radio can play its important role in international relations. It is now that father and mother can talk directly with their daughter, learn that she arrived O. K., hear news about her trip and her new family and most important of all listen to her voice to read between the lines, shed more tears, yet know she is as close as the radio makes it possible.

It is here too that the Amateur Radio Operator makes his sacrifice for world building! (Often I have sat for hours and connected students with their families and started to think of all the "important" things I might be doing. I have lost patience with what seemed like idle chatter and pulled myself up short just in time to realize that this isn't idle chatter at all. Rather, it is the kind of "stuff" that the world must be built around.

This is history in the making and Amateur Radio is an essential and important part, the strongest possible link between nations and people. These people talking could not afford the luxury to talk this way otherwise. They could not hear each other's voices. They could not keep the family close nor know their U. S. friends.

However, the sacrifices have just begun at this point. A school year is a long time. Families start to realize what responsibility they have taken upon themselves.

In this strange land, the student may have forgotten all her preparation. Perhaps for awhile she can't remember one word of English. She is lonely for her brothers and sisters, mother and father. She withdraws. She weeps. The U. S. family tries hard to

help her. The more they try, the more she retreats for awhile. The lack of language capability becomes very evident and the U. S. family suddenly realizes that there really and truly are different people, different languages, different customs.

Here in their own home they experience a lesson in international understanding. Eventually necessity finds a way. Conversation improves. The student learns to speak in English. Youth in the home communicate with her and a new look at the world takes place for everyone.

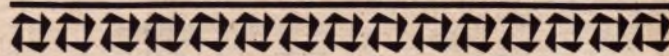
Another link in the pattern of world understanding is welded together, perhaps never to be broken apart. This day progress is made in behalf of humanity everywhere.

Then school officials, students, teachers, families in the area and people everywhere in the area must sacrifice personal pleasures to give just a little more to make the "foreign" student's visit successful!

What of the Amateur Radio Operators at both ends? Well, they have started out with the initial communication. Will they help cement this link for a whole school year? Will they play the role of the unseen hero who takes his own time, uses his own equipment and maybe is noticed only when something goes wrong with a schedule?

I think they will. They are important agents in this non-political, non-governmental development that is taking place. They are in a position to show the way for the rest of the world.

It is only through participation of people, individuals like you and I, that such programs as THE PARTNERS OF THE AMERICAS can be successful in building for the future of mankind. The radio hams can assist these programs of vision because nobody in the whole world knows the meaning better. The dream of friends throughout the world has been the dream of Amateur Radio since it began. The meaning of sacrifice and service to accomplish this is a reality with many ham operators.



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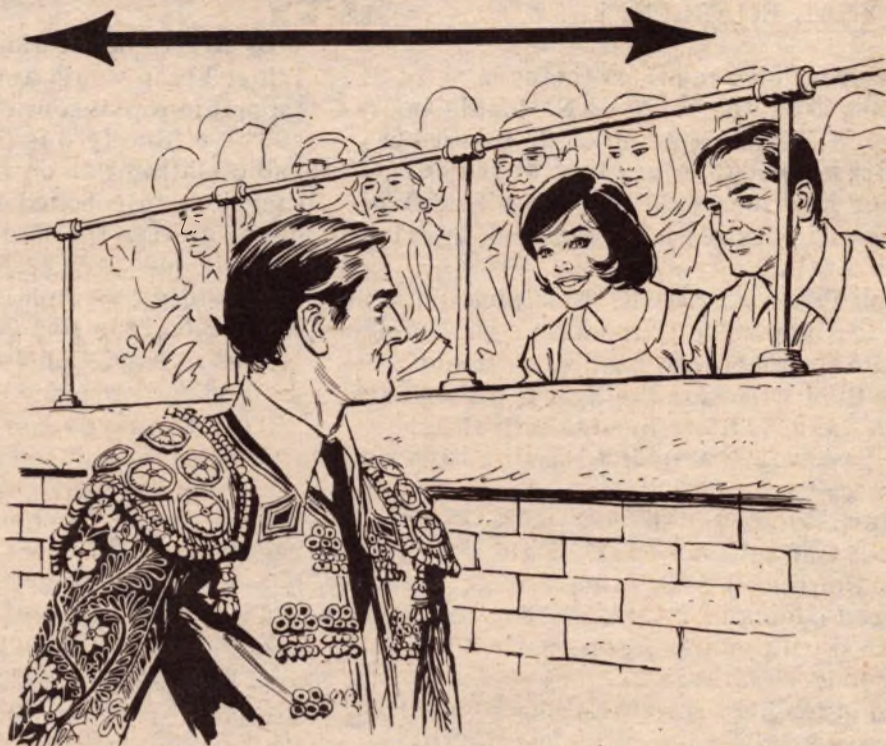
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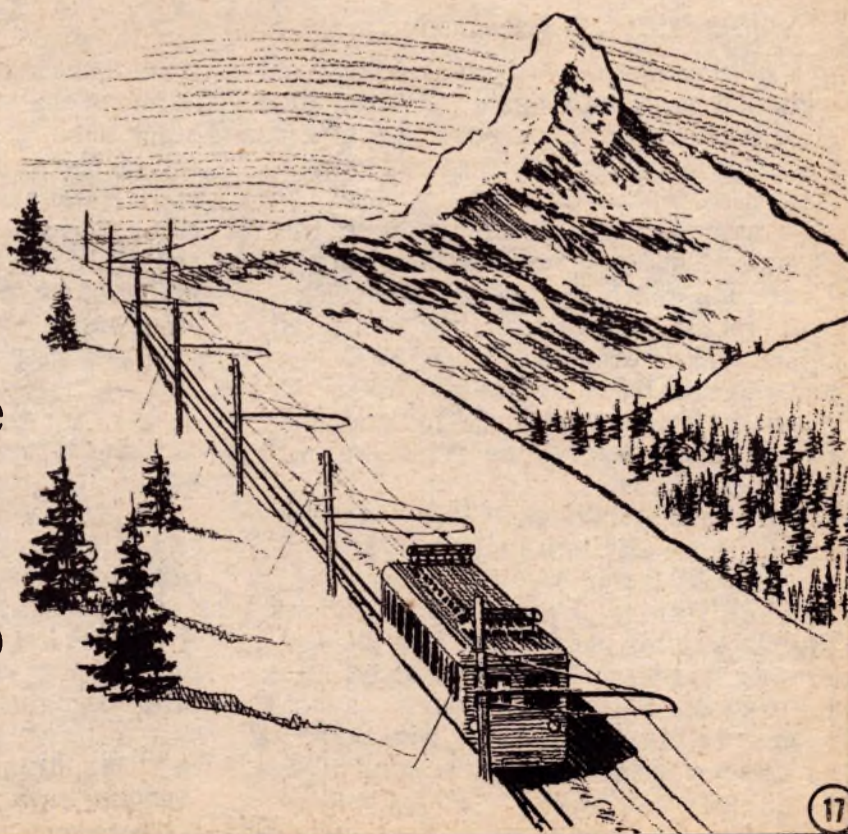
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MEDICAL EMERGENCY

At about 8:00 p. m. on the evening of 31 August 1972, the Mexican National Observatory/XE1PAM came up on 75 meters to report a serious injury to a workman. Javier Martinez was in shock with convulsions and possible neck and back injuries from a fall.

Bob Rose, XE2MMK, first picked up the call for help. The immediate concern of XE1PAM was how to handle, treat, and prepare the patient for the long and rough trip down the 9,000 foot mountain to Rancho San Jose where a medical doctor happened to be visiting.

Wes Novotney, W6YSP, came up on frequency and telephoned Dr. Dale Hoyt, President of the "Flying Samaritans", who answered questions on what to do, and what not to do, in preparing the patient for the long journey ahead.

No stretcher was available, so a door was used, with pillows packed tightly on each side of the injured workman.

The nearest hospital, in Ensenada, was four hours away by car, and San Diego was about three hours if an aircraft at Rancho San Jose could have taken off in the dark.

Because night flying is so hazardous as to be illegal, this option was dropped by Aida Meling, XE2BY, who was readying the ranch to receive the patient.

At this point Nash Williams, W6HCD, suggested that the Mexican Red Cross ambulance in Ensenada be alerted so that it could be dispatched south so as to hope-

fully arrive at the ranch by the time the injured man would arrive there from the mountain top observatory.

The difficulty was that no Ensenada radio station was on frequency. Williams therefore telephoned Ensenada from Pasadena, alerted the Red Cross hospital, and got Enrique Garcia, XE2RH, on frequency to simplify coordination by participating XE2BY and the Red Cross in the complex issues at hand. XE1PAM and W6HCD remained on frequency until about 1:00 a. m.

The visiting doctor at Rancho San Jose examined the injured man and decided that the best alternative was for the patient to remain at the ranch until the following day, rather than experience an additional 3-1/2 hours in a car or ambulance that night.

The following evening XE2BY reported that Sr. Martinez had been flown to Ensenada Friday morning, and that he had broken several bones and was badly bruised and dehydrated, but with no back or neck injuries. He is now at home in Rosarito recovering nicely.

BOAT IN DISTRESS

The thirty foot sloop "Edith Rose" had been disabled in the Pacific Ocean for two weeks when she was blown toward shore off San Antonio del Mar near Colnett, Baja California.

With only raisins and coconuts sustaining the two man crew, they dropped anchor 200 yards off shore, unaware that Colnett

was just over the hills on Mexico's Highway One.

The captain was ill, and in the desperation brought on by hunger, fear and the captain's sickness, the crewman swam ashore. Finding his way to Colnett, he was taken by a villager to the home of Amateur Radio Operator Bob Rose, XE2MMK, at Rancho Santa Teresa, south of the village of San Vicente.

On Monday evening, 28 August 1972, Rose broke the Western Public Service Net on 3952 kHz during roll call to report the emergency. J. C. Ellison, K6MVF, in San Diego, who was acting as southern relay, advised the Coast Guard in Long Beach.

At 9:00 p. m. PDT, Ellison moved the operation to the Flying Samaritan Amateur Radio Net. The crewman had been cared for at Rancho Teresa and was ready to return to the "Edith Rose" to help the sick captain, but he needed food supplies.

Evelyn Ammunsen, the English teacher at the Flying Samaritan school in San Vicente opened the storeroom at the school and provided food supplies which were taken to the sloop by a local fisherman.

At 10:00 a. m. PDT Tuesday, 29 August, Ellison was advised by the U. S. Coast Guard in Long Beach that the Mexican "Guardacosta" had the Edith Rose in tow headed north to Ensenada. The captain and crewmen were aboard with, for the first time in 16 days, adequate food supplies. The sloop's home port is San Francisco.

Submitted by Nash Williams, W6HCD

Small World Isn't It

by Joe Singer, K6HJN

A few years ago I had several communications with Klaus Doering, DL1RK. I had mentioned to him that about every other year I go to Europe. He then asked me to visit him, which I did.

He has a beautiful home high up in the Taunus Mountains, north of Frankfurt, and he and his family treated me like a long lost brother, most hospitably.

This year I decided to visit the Orient and as I usually do in foreign cities, I roamed all over Bangkok, Thailand, on foot, taking in everything of interest with my hungry eyes.

One day I found myself lost on the outskirts of the city in its still jam-packed streets. As it was becoming dark and I was half starved, I was eager to find my way back to my hotel which was the newest and largest in Bangkok. I didn't think I'd have any difficulty in asking the local people for directions. But, I received no assistance from anyone, the name of my hotel just didn't seem to "ring a bell".

Finally, walking ahead of me I spotted a caucasian and tapping the fellow on the

shoulder, I asked if he spoke English. He sure did and when I told him of my predicament he replied by telling me that I was walking in the opposite direction from downtown... and my hotel.

He said that since he was a visitor and had plenty of spare time, he would be happy to walk me back to my hotel. This was in spite of the fact he had just come from there where he had been bargaining in one of the hotel shops over a ring for his wife.

I suspected a slight German accent in his speech and asked what city in Germany he came from. He replied, "from Frankfurt", and I told him that I had a good friend residing close to Frankfurt. I related that I had enjoyed a most pleasant visit at their lovely home up in the Taunus Mountains, that my friend was an Amateur Radio Operator, and that he was a navigator for Lufthansa and flew from Frankfurt to Alaska and Japan.

The fellow looked at me, with a smile, and said, "You don't happen to be referring to Klaus Doering, do you? I happen to fly for Lufthansa with him as flight engineer."

He told me he was flying back to Frankfurt the next day and would see Klaus. He offered to give him a note from me.

It just astonished me that out of the two or three billion people on this earth, on the opposite side of the planet from my home, I tapped this particular man on the shoulder to ask for information!



THIS?



THIS?



or this?

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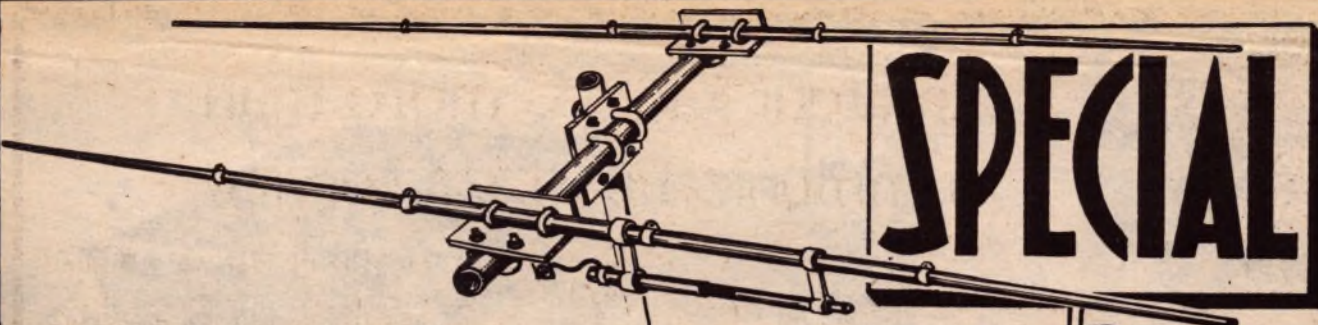
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SPECIAL

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"Welcome to Amateur Radio"

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In a way we're a little different. We do welcome you into Amateur Radio, but we don't feel you've got to have our antenna. We know you can "get along" without it, even though it means struggling through QRM till your ears ring, pounding the key till your fist feels like it will fall off-and still miss that state you've been chasing all week. The sad news is that sometimes 75 watts is just not enough.



15

meter 2-element NOVICE BEAM

from WILSON
ELECTRONICS

Why do it the hard way?

A real easy way of handling this problem is to go to a better antenna. This not only helps the transmitted signal by directing more of it to the desired station, but also will knock out the QRM from the side and back of you. Now, doesn't that sound like a better way to "ham"?



We have the solution . . .

Let's take a look at the WILSON ELECTRONICS NM-215. That 5.5 db gain is the same as raising your power by about four times. On receive, 17 db front-to-back ratio means that stations behind you will drop in strength about three "S" units. And this antenna is built to be a strong one.

The boom and both elements are made of heavy wall aircraft aluminum. It is seamless and extremely durable. The boom is five feet long and two inches outside diameter. The elements (the longest is 22'-6") are 3/4" tapering to 1/2".

In addition to its strength the 6063-T832 aluminum is light weight. Completely assembled, the NM-215 weighs only 10 lbs., and its wind loading is only 38 lbs. That's light enough to be turned by the least expensive rotor you can purchase. Not only that, but you don't need a tower! A 1-1/2' TV mast will handle this antenna just fine-yet it will withstand a 90 mph gale.

The reactance tuned gamma match is so simple to install and adjust, that the name is the most difficult part of it. And speaking of things being simple, you can have the whole beam assembled and up, and on the air in less than one hour. That's due to the (if we may say so ourselves) excellent instructions and the fact that everything is cut and finished at the factory.

I'm sure you can see now that this is not a compromise beam. It has something a lot of the others are really missing -- QUALITY.

The NM-215 is normally priced at \$44.95, but to truly welcome you into Amateur Radio, and to introduce you to our quality antennas, you can receive it for \$34.95. That's \$10 off! But you must include the mailing label from this copy of "Worldradio". You do not have to pay shipping costs, if you live in the continental U. S.

Your beam will be shipped to you within 24 hours after we get your order, and will take only five days to reach the east coast.

SPECIFICATIONS

- Gain - 5.5 db
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Roving Report



by Geoff Green, VS6DA

Hong Kong

NON-ROVING REPORT. Just for a change this month we decided to give up 'a-roving' and stay at home, in order to pass on a few details about the VS6's and in particular VS6-Land.

It has to be a pretty comprehensive atlas to show Hong Kong as any more than a spot on the bottom of China (not a sore spot we hope - anyone for ping pong!?) and more often than not, during a QSO with those who have not had the opportunity of visiting the "Pearl of the Orient", we are asked - "Just what is Hong Kong like?"

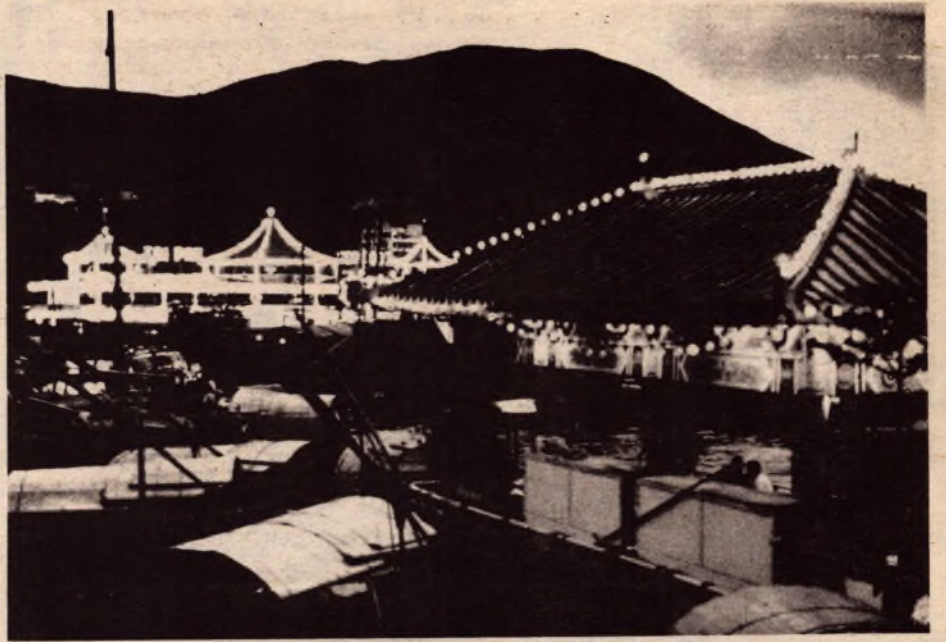
Not wishing to destroy the television and celluloid image, or impair the imaginative mind's eye picture of our oriental QTH, we offer a little information which we hope will be of interest, and assure you in passing that Charlie Chan IS real, and Susie Wong is even better!

FACTS: The British Crown Colony of Hong Kong - the name means Fragrant Harbour in Chinese - comprises a land area of some 400 square miles, and is situated off the South East coast of China near the mouth of the Pearl River, and approximately 80 miles South East of Canton.

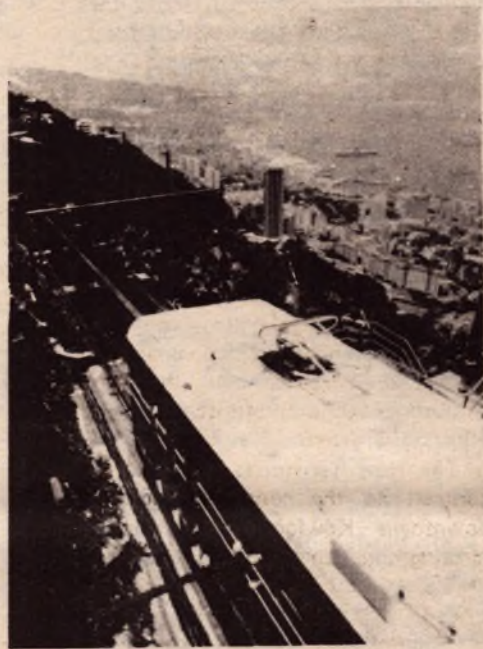
There are 4 main areas to Hong Kong - Kowloon; The New Territories; the Outlying Districts (which include the many islands); and Hong Kong Island, more correctly named Victoria, and it is because the Island itself is usually referred to as Hong Kong that the confusing impression arises that Hong Kong as a whole is an island alone - not so.

The city of Victoria is on Hong Kong Island and houses the Government offices and main business section as well as shopping areas. The

Floating restaurants at Aberdeen



The Peak tram above Hong Kong harbour



famed "Peak" with its peak tram is a favourite residential area, as it rises steeply at the back of the city to 1,805 feet, and before the days of air conditioners and de-humidifiers it was a much sought after location for its cool breezes and magnificent view of the harbour. However, live too far up the Peak and you are literally up in the clouds, because during the hot and humid summer the top of the Peak is often engulfed in cloud.

Cloud or no, signal strength is more important, and clinging precariously by sky hook or any other means almost at the very top is to be found our greatest concentration of VS6's - headed by Lyell 6BE, and Phil 6DR, and then spiralling to include Silva 6BS, Derek 6CA, Herb 6AD, Paul 6DO, and George 6AI not far off on another Peak - Mount Kellett.



MEXICO

Right: Peaceful Shatin, in the New Territories
 Busy street scene in Central, Hong Kong



The fishing town of Aberdeen (good old Chinese name) is situated on the Island and is famous for its floating restaurants, and moving on round the island are some of the Colony's best beaches — Shek O, Big Wave Bay, Stanley, Repulse Bay, and Deep Water Bay, and these house the old firm of Bob 6BF and Son 6AR, as well as George 6CJ, Peter 6EQ and John 6BC. The Island covers an area of about 32 square miles, and a conservative estimate puts the population at around 1½ million.

Kowloon, which means Nine Dragons (from the hills at the back of Kowloon) is really Kowloon Peninsula — a small tongue of land with its northern limit lying along Boundary Street, and this "boundary" is in actual fact the limit of the area ceded to Britain by treaty with China in 1841. In June 1843 after the treaty had been ratified by both countries, Hong Kong was declared a British Colony and the name of Victoria was conferred on the Settlement.

Kowloon is on the mainland and is the shoppers paradise and gourmets hunting ground. Only 3 square miles, it is reputed to be the most densely populated area in the world, over one million people of all races, colours and creeds huddle together in its confines, and buried in amongst this lot is Guy 6CO. Kowloon houses the main sea terminal the Ocean Terminal and shopping complex) and the famed airport jutting out like a finger into the bay.

In 1898 Hong Kong's boundaries were extended by a 99 year lease of the mainland north of Kowloon, and this extension acquired the name, New Territories. Together with the land came some 200 offshore islands — the Outlying Districts.

The New Territories are in direct contrast to the concrete jungle of downtown Kowloon, being mainly farming and fishing areas, in part not unlike regions of Scotland and Ireland. Life goes on much as it has for cen-

Geoff Green's "Roving Report" appears here through the courtesy of "OHM"-The Oriental Ham Magazine. We are pleased to announce that Geoff's column will be a continuing feature in **WORLD RADIO** thanks to OHM.

This may be an appropriate place to reiterate one of our policies. In the true Amateur Radio spirit of cooperation, anything in **WORLD RADIO** may be freely reprinted in any publication. It is not necessary to get permission in advance. We would appreciate a credit line and a copy of the publication in which it appears.

turies, backs are bent in planting the rice paddy, and the ox is used to till the soil. Fishmen and their families beat the side of their sampans with sticks to encourage their prey into the nets, and at night fish by incandescent vapour lamps that make the fleet look like a small town on the move.

In the peace and serenity of the early morning mist which makes the whole countryside like a willow pattern picture, it is hard to imagine that altogether some 5 million people live just down the road, and maybe 850 million across the way. In the New Territories live Don 6AM, little heard Luk 6AZ, Dr. Tan 6DJ, Dave Lau 6DK, Tom 6EA, soon to return to Canada, Drake 6EK, senior member and old China Hand, and myself, and it is from my QTH that I am writing now as I look out across the sea to our nearby islands, the quiet broken only by the

staccato note of the VS6 2 metre net.

The Outlying Districts comprise the islands and outlying areas, most of them connected by ferry service to Hong Kong. Incidentally the largest island is Lantau, and together with Silvermine Bay these are favourite spots with hikers and hill climbers. However, they are not favoured by the VS6's, as not one of them lives in the Outlying Districts — (how about a Expedition to Lantau Island Phill)

Hong Kong's ham population is perforce somewhat itinerant, and the call signs come and go as postings end or contracts terminate, but there are about 9 or 10 permanent VS6 residents, although some of the callsigns unfortunately are seldom heard.

So much for our mini run-down on our QTH, we hope that it has afforded something of an insight — much has been written about Hong Kong, but above all else it remains a modern day contradiction in terms, still capable of conjuring a mental fantasy of the mystic East, opium dens, Eastern ladies, and Taipans.

73's from the Pearl of the Orient, and Jo san 早晨 (Good Day).

(More detailed information on Hong Kong may be obtained from the Hong Kong Tourist Association, Hong Kong). Also obtainable from the Hong Kong Government Publications Centre, Star Ferry Concourse, Hong Kong, are various low cost publications such as the Hong Kong Year Book (a comprehensive study of Hong Kong published each year).

The South China Morning Post (newspaper), Hong Kong, also publishes a series of books on the Hong Kong Countryside, wild life, and Hong Kong birds (winged variety).



Southern California and Mexico Amateur Radio Mobile Group

SALUDOS AMIGOS!

We are extending an invitation to all "Colegas y Amigos" members, their families and friends to join us in Ensenada to participate in the Tenth Annual Motorcade to be held October 28-29, 1972. Anyone interested is invited to contact H. R. "Duke" Ellington, W6OZD, 3649 Emerald St., Apt. 108, Torrance, Calif. 90503 (213) 542-4178

Once again we are asking your assistance toward supplying a few necessary and much needed items for an Old Folks Home and Childrens Orphanage in Ensenada. If any of you would care to assist, please start collecting clean clothing, sheets, blankets, soap, and any non-perishable food items such as powdered milk, dried beans, tomato sauce, etc. Although we are not an organized charitable group, many of you have had the opportunity to witness the fact that a little charity can go a long way toward bringing happiness to others.

(de "Duke" Ellington, W6OZD)



MEXICAN 1000

Amateur Radio Operators are needed for the Mexican 1000 Off Road Race, Nov. 1-3, 1972. Thirty operators will be needed to man the 11 race check points from La Paz to Ensenada.

XE2 prefixes will be issued for your call, i. e. K6QPE becomes XE2QPE. This event offers Adventure-Fun-DXing-Parties in La Paz and Cabo San Lucas after the race. For complete information contact Dr. Michael Gauthier, K6ICS/XE2ICS, 9418 Florence Ave., Downey, Calif. 90240 (213) 923-0131

CONTESTS!!

the test of man and equipment

If you have the rules of an upcoming contest—or results of one just concluded—send the info to **WORLD RADIO**, 2509 Donner Way, Sacramento, CA 95818 (916) 456-6725 (21)

Special Apollo Flight Operation

The Goddard Amateur Radio Club takes pleasure in announcing that WG3SFC will again be on the air to commemorate the flight of an Apollo mission.

Contacts with WG3SFC will be confirmed by a special QSL card. All contact confirmation requests should be accompanied by a self addressed stamped mailing label. The club's address is : Goddard Amateur Radio Club, P. O. Box 86, Greenbelt, Maryland 20770

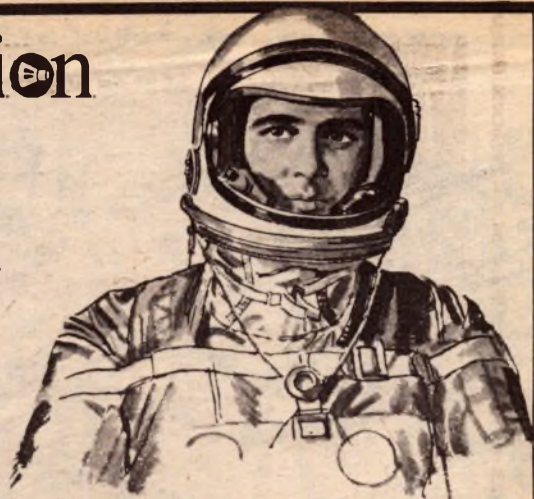
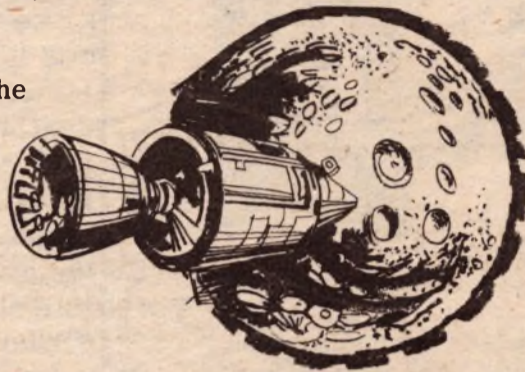
WG3SFC will operate on the following frequencies:

SSB	CW
3.950	3.560
7.275	7.060
14.325	14.060
21.400	21.060
28.650	28.060

The above frequencies are nominal. They may vary as much as plus or minus 5 kHz. Novice frequencies in each band will be tuned from time to time after suitable calls on the CW frequencies.



Apollo 17 is due to be launched on 16 December 1972 in the early evening. WG3SFC will be on the air from prior to launch until after splashdown. The days of this operation will, of course, slip if the launch slips.



The Goddard Amateur Radio Club looks forward to contacting many of our fellow amateurs to commemorate this, the final flight of the Apollo lunar missions.



(de Ken McIntosh, W3PNT)

Mountain Climb

(continued from page 8)

of the KIRO disc jockeys took a fancy to the high-altitude wedding and that did it--he wanted all he could get, once he seized upon the project. KIRO has one of the most powerful signals in the Pacific Northwest, with quite a large listenership.

As one of the KIRO "deejays" put it when interviewing an official of the climb, at one point in the several phone patches run from W7UU, "This marriage won't be uphill--it can only go downhill from this point!"

The return of the nearly 400 climbers from the summit was without incident--but there WAS something rather unusual about it. All litter in their path--either from this climb or other climbs--was picked up and brought down. Mt. Adams was cleaner after the climb than before. Incidentally, Mt. Adams belongs to the Indians: it was given to them by treaty in early days and this has been recently reaffirmed by court action.

Thus ended the seventh successful mass climb of one of North America's highest mountains--with no injuries, with only one case of altitude sickness, and with the elaborate services of W7AQ and associated stations of the Yakima Amateur Radio Club not needed for emergency.

"It was a superb operation" remarked K7VAS, when it was all over. "Everyone did a fine job."



Larry Fitzpatrick, K7VAS

What Ham Radio Means to Me

by Walt Keleher, WA6FAQ

After working at Mare Island Naval Shipyard for 30 years, it was necessary for me to retire on disability due to increasing problems from polio I had as a boy. What to do? Bug the wife? Drive the neighbors nuts? Indulge in liquid libations?

I happened to drop into a local radio-ham-TV store and ran into several fellows spouting "CW", "20 Meters", "beams", "quads", "QRT", "QSL", etc. What?? A new foreign language? Well, I finally figured out that they were those "nuts" called "hams". A novice class was starting, so the young fellow instructing saw this old man with a cane and said, "Try it. you'll like it!" One thing led to another so here I am, a full fledged ham "nut" (though embryonic).

I was most fortunate to have many helps along the way. If it were not for two wheelchair hams, a blind ham, my nephew and several able-bodied friends, I would never have made it.

So what does this new hobby mean to me? Well, it is:

- Finding new friends who are sociable and helpful.
- A means to spend many hours of enjoyment.
- Nets with friendly people who are helpful and willing to patch me into my friends and relatives.
- Expanding my knowledge and horizons to a new challenge.
- A hobby that will always expand in interest and need for my concentration to fully enjoy.
- An excellent way to be "involved" and to assist in forgetting my infirmities and other problems.

A thousand thanks to those who got me started in this delightful hobby and to those who helped me on the way. I hope I can reciprocate and help someone else. I'm ready and willing.

(From "Western Public Service System Newsletter".)



a rip-off?

A Report on Discounts In Air Fares

Consumers Union said yesterday a survey has shown that airline passengers entitled to discount air fares aren't granted them 75 percent of the time.

The independent product testing organization also accused Trans World Airlines of steering passengers away from money-saving discounts.

Consumers Union said it bought 20 tickets at airline offices in New Orleans, Los Angeles and San Francisco, on the theory that "certainly the ticket agents at those major cities should know the correct fares."

The overcharges consisted primarily of charging too much for stopovers or im-

properly computing family fares, the organization said. The biggest overcharge amounted to \$83 for a \$350 fare for a family of four, CU said.

In April Consumers Union said that a similar survey showed ticket agents were overcharging customers on specially constructed routings. The Civil Aeronautics Board confirmed that the airlines "have made a significant number of errors."

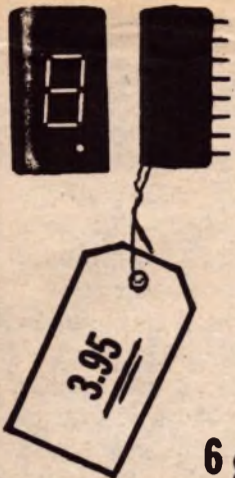
TWA was the only airline that did not overcharge on special discount fares, said Consumers Union, but in the magazine article CU published, what CU said was in a bulletin to TWA agents in the New York area.

The alleged bulletin, sent June 1, advised agents to refrain from suggesting the use of discounts for foreign travel because the discounts "dilute our revenue."

TWA had no immediate comment.

(An Associated Press story appearing in the "San Francisco Chronicle" Sept. 27, 1972)

3015F MINITRON DISPLAY

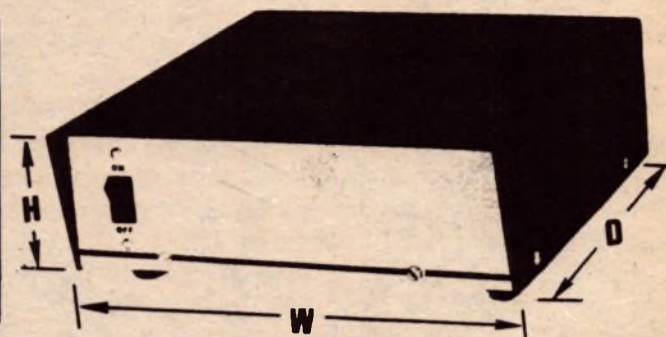


Mates with standard DIP socket or can be mounted directly on a PC board

- Recommended operating voltage . . . 4.5 to 6.5V
- Current per segment 8mA @ 5VDC
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- Contacts Kovar

6 for \$22.00

Deluxe Electronic Equipment Enclosures



KM BOXES are fabricated of heavy cold rolled steel.

The front panels are of 20 gauge brushed chrome steel, line screened and have a red Rocker DPDT switch installed (except "A" box) with gold plated contacts and terminals.

The covers are finished with baked on wrinkle enamel.

All cabinets are completely assembled and supplied with 4 rubber feet riveted in, individually packed in a heavy duty corrugated mailer carton.

Chassis "C" thru "H" are CRS, nickle-plated over copper for excellent RF conductivity.

Allow for 3 lbs. shpg./box with remittance
Model Width X Height X Depth Price ea.

Model	Width X Height X Depth	Price ea.
A	5 5/8 2 1/2 3	\$2.69
B	5 11/16 3 3/8 3 3/4	3.60
C	7 1/4 3 3/8 3 3/4	5.19
D	8 2 1/2 8	6.45
E	6 1/2 3 15/16 7 1/16	5.75
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(A) FM BINGO 3.75 db Gain: (reference 1/4 wave ground plane) Half wave length - 42" @ 147 MHz, ring diameter 5", direct dc ground, 52 ohm feed takes PL-259, low angle of radiation with 1-1 swr. Factory preassembled and ready to install, takes up to a 1-1/4" O.D. mast. THE most popular omnidirectional FM antenna.

AR-2 135 - 175 MHz, 100 watts, wind area .21 sq ft

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SOLDER LUG TYPE WITH 20 For \$1.00
CLOSED LOOP LUG. UNUSED ALL PPD
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MOBILE AMPLIFIERS



BT20A



BT35A

BT35A; 40 W. MOBILE TRANSISTOR PA AMPLIFIER

Excellent for police, fire, CD, and boats; radio receiver connects easily to aux. input. Splashproof gasket seals chassis in cabinet. Temperature range -20°C. to +65°C. (149°F.). Polarity protection. Adjustable fixed-lock bracket. Built-in RF/line filters.

Power Output: 40 w. at less than 10% (continuous). **Peak Power:** 55 w. **Power Consumption:** Full power 4.4 amps; Quiescent, 0.42 amps 12-15 VDC. **Freq. Response:** 150-15,000 Hz ±3 db. **Inputs:** 1 mic. (low imped.); 1 aux. #1 (high level) tuner/tape/phono, 1 aux. #2 (high level) accessory (tone signal). **Gain:** mic. 110 db; aux. 90 db. **Hum and Noise:** (below rated output) mic. -90 db; aux. -95 db. **Sensitivity:** mic. 1 MV; aux.: 0.4 V. **Output Imped.:** 4, 8, 16 ohms. **Controls:** 1 mic.; 1 aux. volume; 1 selector switch/power (4 position); power off, mic., radio, aux. **Transistors:** 5 transistors, 1 silicon diode. **Dimen.:** 8" W, 6 1/4" D, 3" H. **Ship. Wt.:** 8 lbs. **89⁹⁵**

BT20A; 25 W. MOBILE TRANSISTOR PA AMPLIFIER

Temperature range: -20°C to +65°C (149°F).

Power Output: 25 watts @ less than 10% (continuous). **Power Consumption:** Full power: 2.8 amps; Quiescent: .26 amps; 6-15 VDC (6 w. output on 6 VDC). **Inputs:** 1 mic. (low impedance); 1 aux. (tuner, tape, phono). **Gain:** mic., 110 db; aux., 90 db. **Hum and Noise:** mic. -90 db (below rated output); aux. -95 db (below rated output). **Sensitivity:** mic., 1 MV; aux., 0.4 volts. **Output Impedance:** 4, 8, 16 ohms. **Controls:** 1 mic.; 1 aux./power. **Transistors:** (5) 2-2N2926, 1-40234, 2-DTG-110. **Dimensions:** 4 1/2" W, 4" D, 6 1/2" H. **Shipping Weight:** 4 lbs. **66⁹⁵**



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Federal Communications Commission

(Continued from page 2)

remote control but not in compliance with the new rules may continue to operate until their current station licenses expire.

Approximately one-half of each Amateur VHF band and 8 MHz of the 420 MHz band was authorized for repeater usage, and Technician Class licensees will be permitted to operate in the entire 145 to 148 MHz segment. The new rules also restrict linked repeater operation, place limits on the effective radiated power from a repeater station antenna, and require the licensee to maintain supervision and control of both the technical and operational performance of his repeater station.

The rules also provide for operation of stations by visiting operators, automatic identification of repeater stations by telephony as well as telegraphy, and for continuous monitoring of remotely controlled transmitters to prevent interference to radiocommunication already in progress on a given frequency.

Although the rules do not proscribe amateur radio from being automatically interconnected to a telephone exchange system, the Commission said that because of numerous violations of the rules regarding interconnection, it may be necessary to examine the use of "autopatch" facilities and possibly restrict the use of such devices in the Amateur Radio Service. It warned that until new regulations are adopted, interconnection devices must be limited to amateur radiocommunication and may not be used for any type of business communication.

The new rules become effective October 17, 1972.

(NOTE: The October issue of QST will contain the entire docket and the ARRL will give their analysis and interpretation of the new rules.)

Amateur Radio Extra Class Licensing, Operating Rules Eased.

(September 7)--Requirements for the Amateur Extra Class radiotelegraph operator license have been modified by the FCC to reduce the waiting period called for before applying for a license and to exempt qualified applicants who have previously passed a Morse Code test from repeating the exam (Docket 19163).

The Commission action amends Part 97 of the rules. It follows release of a rule-making notice, prompted by petitions from the American Radio Relay League and William K. Smith.

The rule changes reduce from two years to one year the waiting period required of amateur license holders before they may upgrade their licenses to the Extra Class. The changes provide that Advanced Class licensees, who formerly held the Extra First Class license and have remained continuously licensed, may be credited with having passed the Morse Code exam re-

quired for the Extra Class license. Former Extra Class licensees have passed a Morse exam of 20 words per minute.

The modified rules also permit holders of a valid First Class commercial radiotelegraph operator license, or any commercial telegraph operator license containing aeronautical radiotelegraph endorsement to be credited with having passed the Morse test.

The Commission denied a number of additional proposals, including four separate petitions asking that the Extra Class license be issued to holders of the General or Advanced Class license on the basis of license tenure or the licensee's age.

The rule changes are effective October 27, 1972.

*

Denial of Application for Amateur Radio Station and Extra Class Operator Licenses Proposed in Initial Decision

(September 14)--Denial of the application of Herbert L. Rippe, Cincinnati, Ohio, for Amateur radio station and Extra Class Operator licenses, has been proposed in an Initial Decision by Hearing Examiner Isadore A. Honig (Docket 19270).

Rippe's application was designated for hearing in an order (FCC 71-666) released June 30, 1971. Hearings were held from November 30 through December 1, 1971, and the record was closed February 4, 1972 after receipt of further evidence.

As found by the Examiner, in February 1968 Rippe filed an application requesting assignment of a two-letter call sign. He certified that he had been an Amateur licensee for 25 years and in support of his application submitted two photo copies of license documents, one of his active Amateur license, and the other a purported copy of an Amateur Radio Operator's license issued in 1942. The application was granted in March 1968, and the call sign W8DE was assigned to Rippe. After a subsequent examination of the 1968 application, the Commission questioned the validity of the 1942 license document. The applicant testified at the hearing that he had taken an examination at Nashville, Tenn., and had been issued an Amateur license in 1942, but he had lost that license. He said that he had requested a verification of his 1942 license from the Commission in 1967 but received an unsatisfactory answer. He thereafter altered a copy of his 1947 license to manifest a 1942 issue date.

On November 6, 1969, Rippe's Amateur Extra Class Operator license was suspended by the Commission for the balance of its term, and his Amateur radio station license W8DE was revoked February 16, 1970, for willful violation of Section 97.129 of the rules by obtaining a license through fraudulent means.

In his Initial Decision, Examiner Honig said it was clearly established that Rippe had obtained his two-letter call sign by submitting a "bogus" license document. This deception cannot be condoned, the Examiner said, just because the applicant had received an unsatisfactory response from the Commission regarding verification of a 1942 license. The Examiner noted that

every conceivable pertinent record source was checked before the hearing by Commission personnel in an extensive effort to verify the issuance of a 1942 license to the applicant, but the search of Commission records, FBI finger prints and cross-reference records, and the American Radio Relay League records failed to disclose the issuance of such a license. In concluding that Rippe had failed to sustain his burden of proof on the 1942 license question, Examiner Honig further held that the applicant is not now eligible for and should not be granted a two-letter call sign. The Examiner, after noting significant contradictions in the applicant's testimony, the complete absence of records to corroborate his claim of a 1942 license, and his misrepresentations to the Commission, among other things, concluded that the applicant's testimony in the hearing and his inexcusable conduct with regard to the two-letter call sign affair precluded a determination that the applicant can be relied upon to operate the station in accordance with the terms of a license. The Examiner concluded that the applications in this proceeding should be denied. This conclusion was reached notwithstanding the applicant's apparent reliability and superior competence in a position requiring integrity and a good reputation.

The Initial Decision becomes effective 50 days after its release date unless there is an appeal by a party to the proceedings or the Commission reviews the Initial Decision on its own motion.

*

Actions In Docket Cases

(September 14)--By Chief Administrative Law Judge Arthur A. Gladstone: Terminated hearings, and certified to the Commission, proceedings on orders to show cause why the licenses for the following stations should not be revoked: Stewart J. Strickler, Trustee, University of Colorado Radio Club, Boulder, Colo., Amateur radio station W0YQ.

(September 15)--By Chief Administrative Law Judge Arthur A. Gladstone: 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: Lynn A. Johnson, Fullerton, California, Amateur radio station WB6TFT; Scott R. Douglas, Hollywood, California, Amateur radio station WB6CDM; Rolland F. Spooner, Falls Church, Virginia, Amateur radio station WB4NWG.

*

(Turn to page 26, please)

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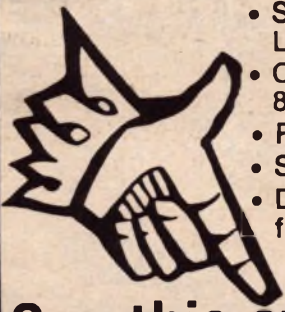


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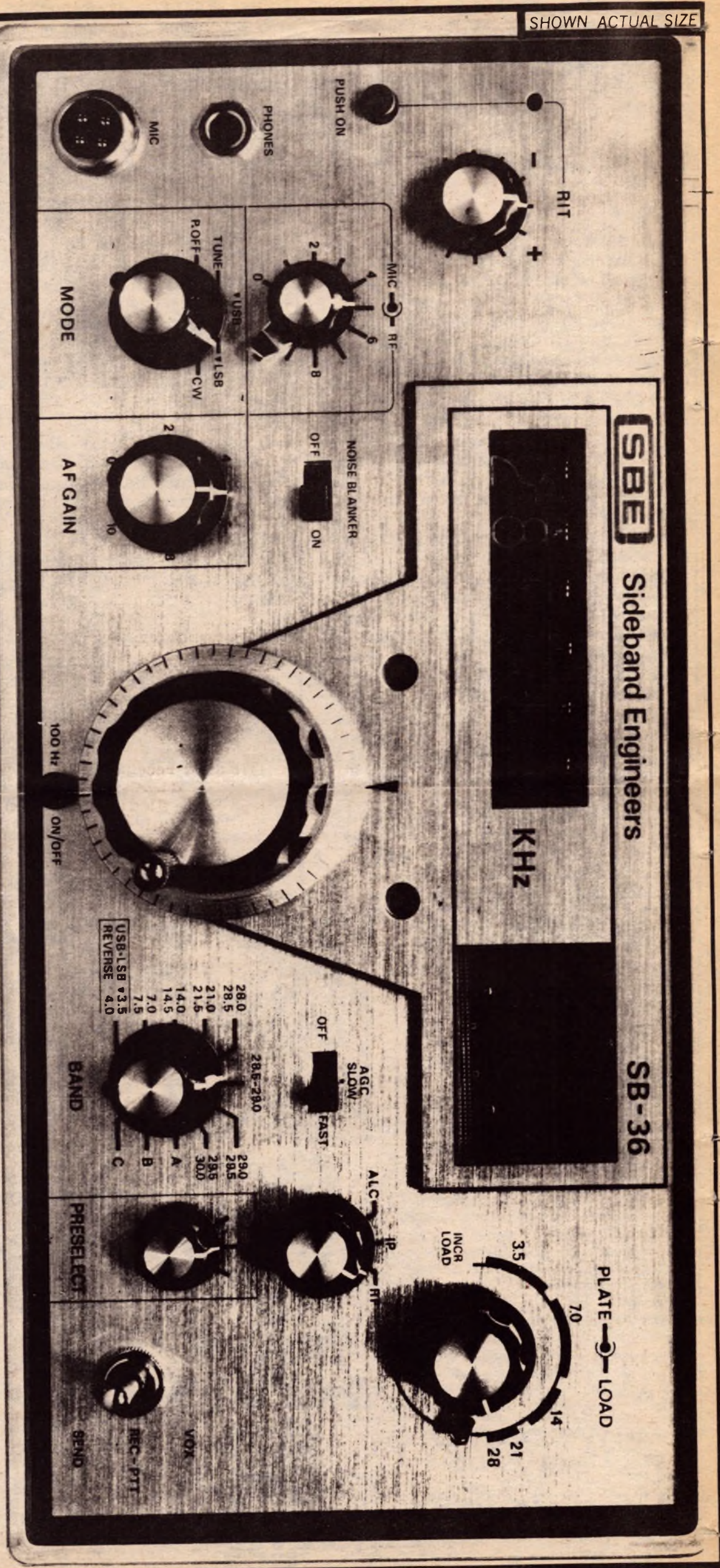
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Chicago Amateur Radio Group's Request To Eliminate Amateur License Fee If It Causes Financial Hardship Denied by FCC

(September 18)--A petition by the Chicago Area Radio Club Council, Inc., asking that the application fee for an amateur radio license be eliminated when undue financial hardship would result from payment, has been denied by the Commission.

Part 1 of the rules specifies a charge of \$9.00 for an amateur license application, license renewal or change in class of amateur operation. \$4.00 is charged for modification of license.

The amateur group proposed waiving these fees if an applicant submitted an affidavit stating that payment would cause financial hardship, arguing that young people, old people, and those with heavy medical expenses would have trouble paying the fees.

The Commission said that the fees were quite modest when compared to the fees for other radio services and the cost of radio equipment, especially since a license term is five years long. The FCC found that the amateur group had not adequately shown the alleged financial hardships.

Safety and Special Actions--The Commission, by its Safety and Special Radio Services Bureau, took the following action. (September 18)--Michael Pecsek, Jr., Highland, Ind., licensee of Amateur radio

station WA9PKO. Ordered to show cause why the license should not be revoked for repeated violations of Section 1.89 of the rules by failing to reply to official communications.

Safety and Special Action--By the Chief, Safety and Special Radio Services Bureau on September 19: Dismissed petitions by Werner F. Esseluhn and Leroy G. Flamm (RM-1346), W. H. Gibby (RM-1912), K. A. Fichthorn (RM-1959) and George A. Bonadio (RM-2015) for amendment of Part 97 of the Amateur Radio Service Rules to provide for additional operating privileges to certain amateur operators, since suggestions, as those of the petitioners, that an advancement in rank based upon arbitrary standards of longevity have been considered by the Commission and rejected in Docket 19163.

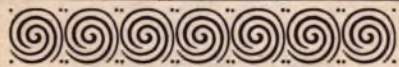
Actions in Docket Cases--By the General Counsel on September 22: On request of the American Radio Relay League, Inc., extended to October 31, 1972, time for filing comments, and to December 8, 1972, time for filing reply comments in the matter of Implementation of the National Environmental Policy Act of 1969. The League stated that the proposed rule may have a substantial impact on amateur radio operators, and that the additional time is needed for study of the legislative history and obtaining guidance from the League's Executive Committee following its meeting on September 30, one day after comments were due. The General Counsel said that the proposed rule involves matters of considerable importance to the communications industry as a whole, and warrants extensive study, including consideration of alternative approaches. In the interest of obtaining thorough and well considered comments on the proposal, he said the extension was desirable, but said that barring extraordinary circumstances,

no request for additional extension will be granted. (Docket 19555).

Safety and Special Actions--The Commission, by its Safety and Special Radio Services Bureau, took the following action: (September 25)--Donald G. Matthews, Sunnysvale, Calif., licensee of Amateur radio station WB6EZN. Set aside the Order to Show Cause and terminated the proceeding since the licensee had responded to Commission communication prior to the issuance of the Order to Show Cause.

Actions in Docket Cases--By Chief Administrative Law Judge Arthur A. Gladstone on September 28: Terminated hearing, and certified to the Commission, proceedings on orders to show cause why the licenses for the following stations should not be revoked: David E. Eckman, Kenmore, N. Y., Amateur Radio Station WB2POK.

Safety and Special Action
Safety and Special Action--Rules Waived to Permit Ship Station to Communicate With Amateur Radio Stations--(Sept. 29) A request by Edward R. Wagner for waiver of Sections 83.50 and 83.70 of the rules in connection with his application for ship radiotelephone license, to permit him to communicate with amateur station K4MM, Fairfax, Va., while he is on a two-year round-the-world cruise in the sailboat NIRVANA, has been granted by the FCC. The rules provide for issuance of an authorization for a ship station to use radiotelegraphy in communication with amateur stations. While the NIRVANA will not be equipped for radiotelegraph, and Wagner holds neither a radiotelegraph nor amateur license, he wants to be able to communicate with K4MM for safety and in connection with scientific experiments he will be conducting for the Department of the Navy and the National Aeronautics Space Administration.



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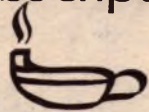


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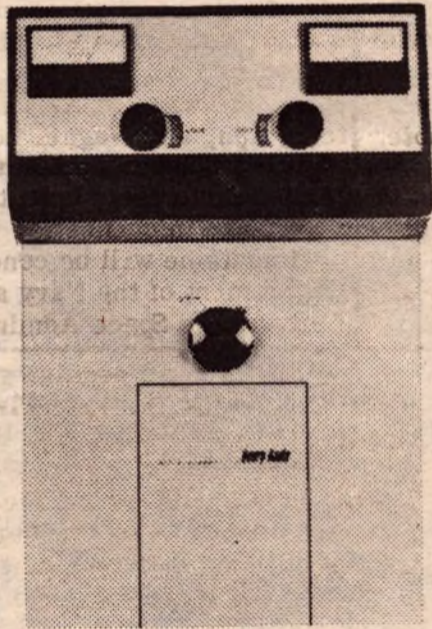
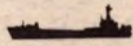


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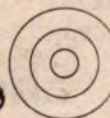
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Before the FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554



In the Matter of

CHRISTOPHER ROUNDS
P 1171 Caroline Court
Livermore, California 94550

Suspension of Amateur Radio
Operator License WA6JGG

O R D E R

Adopted: August 24, 1972
Released: August 24, 1972

The Commission, by the Chief, Safety and Special Radio Services Bureau, having under consideration the suspension of the General Class Amateur radio operator license of Christopher Rounds, P 1171 Caroline Court, Livermore, California 94550 which will expire on December 5, 1974;

IT APPEARING, That, on February 23, 1972, the above-named licensee wilfully and maliciously interfered with, or caused interference to, radiocommunications or signals of other radio stations, in violation of Section 303(m) (1) (E) of the Communications Act of 1934, as amended, and Section 97.125 of the Commission's Rules;

IT FURTHER APPEARING, That on February 23, 1972, the above-named licensee transmitted unidentified communications on his Amateur Radio Service station, in violation of Section 97.123 of the Commission's Rules; and

IT FURTHER APPEARING, That on February 23, 1972, the above-named licensee did not identify his General Class Amateur radio station by the transmission of its call sign at the beginning of transmissions at 12:35 p. m. PST, in violation of Section 97.87(a) of the Commission's Rules;

THEREFORE, IT IS ORDERED, That, pursuant to the authority granted in Section 303(m) (1) (A) and (E) of the Communications Act of 1934, as amended, and Section 0.332(f) of the Commission's Rules, that the General Class license of Christopher Rounds IS SUSPENDED for a one year period; and

IT IS FURTHER ORDERED, That this Order shall take effect upon the expiration of 15 days from the date on which the licensee receives notice thereof; and

IT IS FURTHER ORDERED, That a copy of this Order of Suspension shall be sent to licensee by Certified Air Mail--Return Receipt Requested at his last known address as shown in the caption; that within 15 days after receipt of such copy, the licensee may make written application for hearing, whereupon this Order automatically will be held in abeyance until the conclusion of proceedings on said application; and

In the Matter of

STEVEN E. LOUTON
804 Lakeview Drive
Redding, California 96001

Suspension of Amateur Radio
Operator License WA6GJK

O R D E R

Adopted: August 24, 1972;
Released: August 24, 1972

The Commission, by the Chief, Safety and Special Radio Services Bureau, having under consideration the suspension of the General Class Amateur radio operator license of Steven E. Louton, 804 Lakeview Drive, Redding, California 96001, which will expire July 25, 1974;

IT APPEARING, That, on December 16 and 17, 1971, in association with General Class Amateur licensee Paul Horvitz(WA6IAF), the above-named licensee wilfully and maliciously interfered with, or caused interference to, radiocommunications or signals of other radio stations, in violation of Section 303(m) (1) (E) of the Communications Act of 1934, as amended, and Section 97.125 of the Commission's Rules; and

IT FURTHER APPEARING, That on December 16 and 17, 1971, the above-named licensee, in association with General Class Amateur licensee Paul Horvitz (WA6IAF), transmitted unidentified communications on Amateur Radio Service station WA6IAF, in violation of Section 97.123 of the Commission's Rules;

THEREFORE, IT IS ORDERED, That, pursuant to the authority granted in Section 303(m) (1) (A) and (E) of the Communications Act of 1934, as amended, and Section 0.332(f) of the Commission's Rules, that the General Class license of Steven E. Louton IS SUSPENDED for a one year period; and

IT IS FURTHER ORDERED, That during the period of any suspension resulting from this Order and during any proceedings held in connection with this Suspension Order, the Commission will not receive or consider any application filed by this licensee for any class of Amateur Operator or Amateur radio station license.

Chief, Safety and Special Radio Services
Bureau

By: Vergil W. Tacey
Acting Chief, Legal Advisory and
Enforcement Division

In the Matter of

PAUL HORVITZ
3590 Lupine Avenue
Palo Alto, California 94303

Suspension of Amateur Radio
Operator License WA6IAF.

O R D E R

Adopted: August 24, 1972
Released: August 24, 1972

The Commission, by the Chief, Safety and Special Radio Services Bureau, having under consideration the suspension of the General Class Amateur radio operator license of Paul Horvitz, 3590 Lupine Avenue, Palo Alto, California 94303, which will expire on October 30, 1975;

IT APPEARING, That on December 16 and 17, 1971, in association with General Class Amateur licensee Steven E. Louton (WA6JGK), the above-named licensee wilfully and maliciously interfered with, or caused interference to, radiocommunications or signals of other radio stations, in violation of Section 303(m) (1) (E) of the Communications Act of 1934, as amended, and Section 97.125 of the Commission's Rules; and

IT FURTHER APPEARING, That, on December 16 and 17, 1971, the above-named licensee, in association with Amateur General Class licensee Steven E. Louton, transmitted unidentified communications on his Amateur Radio Service station, in violation of Section 97.123 of the Commission's Rules;

THEREFORE, IT IS ORDERED, That pursuant to the authority granted in Section 303(m) (1) (A) and (E) of the Communications Act of 1934, as amended, and Section 0.332(f) of the Commission's Rules, that the General Class license of Paul Horvitz IS SUSPENDED for a one year period; and

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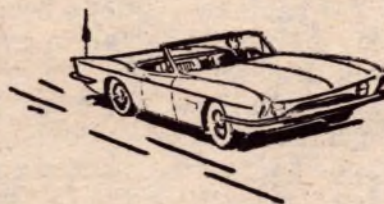
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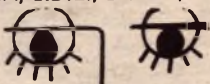


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the travels of DARLEEN

and the people she meets

For over a year the imagination of Amateur Radio was captured by the world-wide travels of Darleen Souigny, WA6FSC. She operated from exotic spots, was the guest of King Hussein, JY1, and visited amateurs on every continent. On May 18, 1972 she and Joe Magen, HC2OM, were married. Darleen is now living in Guayaquil, Ecuador and is licensed as HC2YL. WORLD-RADIO has been carrying an account of her journey (which resulted in thousands of QSL cards) which now resumes with her in Peru.

Sunday, February 6th

Arose a bit later than yesterday and after a leisurely breakfast, my car came by to take me to the famous Sunday market in Pisac. Enroute we passed many llamas, alpacas and even cows, pigs and some poultry, as well as horses. Although the Spanish colonists brought the cow, the horse and sheep to the New World, the llama still serves as a combination of the three by providing meat, wool and beast of burden.

Llamas often travel in caravans of 50 or more for distances up to several hundred miles transporting goods to market. Although normally mild tempered, the llama may spit, bite and kick if he is frightened -- guess I didn't frighten them as they were very kind to me and let me take their pictures freely.

Alpacas are smaller animals, too delicate to carry burdens, but their wool is much finer than that of the llamas.

Indian costumes vary from one region to another and all have the mixed influence of both Incan and Spanish. Reversible hats indicate a woman's marital state; single girls use the brightly colored side while married women use the black side. Flowers on fancy hats may be used by single girls in other regions.

The greater the number of underskirts a woman may wear, the wealthier is her position in the community. In addition to being a status symbol, a large number of skirts is very warm. Most of the clothing is hand spun and woven by the wearer. The women carry their babies on their backs thus leaving their hands free for working.

The market was very interesting with almost every conceivable type of merchandise available including ponchos, woven blankets, alpaca rugs, jewelry of all sorts, various types of agriculture products including onions, tomatoes, hot chili peppers, corn, grain, cheese, eggs, fruit, etc.

We then walked to the ancient church and watched the mayors and assistants carry silver sticks (vara) as a symbol of authority. The two boys carry shells to blow, to announce the mayor's entry into the village. Then the priest comes out after the morning Mass.

Again, we were very fortunate with good, sunny weather. In fact, got a little sun-tan. Back to the hotel for lunch and took it easy and visited with some people from New York who own a communications service

(mobile telephones, answering service, etc.). One of his technicians is a ham so he is hoping to set up a schedule with some Sacramento station when I return to Calif.

Monday, February 7th

Got up, regretfully, at about 6:00 a. m., packed and had a leisurely breakfast and the car was waiting to drive me to the airport and soon I was on my way back to Lima. It was a smooth, uneventful journey and Lily Sterental was on hand to meet me. Got unpacked and visited and we will be going shopping downtown this afternoon. I plan to buy one of the beautiful alpaca rugs to adorn my fireplace, when I finally get a QTH, and if it doesn't have a fireplace, I will just have to pretend!

It is certainly a change of climate -- in Cuzco one needed the heat on at night and here in Lima it is about 80 with quite high humidity today but with a nice cool breeze blowing.



Becky Sterental, OA4AJ

(Later in the day) Becky Sterental, OA4AJ, took me shopping and I bought a lovely alpaca rug. I wanted a rectangle one but all he had left was a round one but he said if I took that one he would try to get me a rectangle one with the design going across the center instead of down the middle in a vertical manner and would let me know by the weekend. We went to the Peru Handicraft shop and also to the bazaar. Had a leisurely dinner and spent some relaxing time on ham radio telling everyone of my experiences at Cuzco, etc.

Tuesday, February 8th

Well, I really needed it so I got my hair done and what a difference it made--almost made me feel human again. I must admit the service was excellent but all the magazines, of course, were in Spanish so all I could do was look at the pictures. I'm really going to have to learn Spanish when I return and that's all there is to it!



Natan Sterental, OA4OS

Natan (OA4OS) and Becky Sterental took us to lunch in the Sky Room Restaurant of the Crillon Hotel. The restaurant is on the 22nd floor and offers an excellent view of Lima and the food was delicious. I tried some Ceviche, which is raw fish marinated in lemon juice and is served with onions and hot peppers and is delightful.

After feasting on the delicious desserts and fruits, we adjourned to the Sterental's wool factory and went through the entire process from the beginning. From carding, sorting, weaving, dyeing, drying, and ending up with the finished products of blankets, material, etc. One machine in particular intrigued me --Jacquard-- it is a programmed type machine which automatically determines the design of the fabric. I will certainly respect my blankets and sweaters much more now.

Wednesday, February 9th

Left by Faucett Airlines via a BAC III jet to Pucallpa where we were met by Paul Wyse, OA8V, of Yarinacocha: Wycliffe Jungle Base. Paul is in charge of the Communications Department. It is a base of about 400 people including children. They



Darleen Magen, HC2YL-WA6FSC

have their own school, hospital, cafeteria, printing plant, recreational areas, church, auditorium, a number of aircraft with several float planes which are used to get to some of the remote Indian villages.

The purpose of the Wycliffe Bible Translators is to reduce the more than 2,000 unwritten languages of the world to writing.

Paul's wife and young son are now in a remote village for six weeks and will be returning in about three weeks.

When we arrived it was very hot and humid and the road to Yarincoacha was very bumpy with lots of holes and when it rains a great deal it is impossible to get to the airport by road and you have to fly in one of the Wycliffe planes to the airport.

After lunch in the cafeteria we went fishing in the lake which is about one block from the base. In the evening we took a boat across the lake to a German restaurant and had a lovely dinner. It was so peaceful and quiet except for the thousands of mosquitos which were looking for blood transfusions.

We saw a satellite passing overhead and millions of stars which we don't see in the northern hemisphere and lots of brilliant lighting. Would have been good for a time exposure but I hadn't brought my camera along. Tried 160 and 75 meters when we got back but no propagation and a very high static level. Then got on 20 meters and checked in with Pandora's Net and talked to a few old friends.

Thursday, February 10th

Well, everyone has to try it some time so I had my first motorbike ride--went into the city of Pucallpa which has a population of about 25,000. It has many stores, plywood factories, restaurants, markets, governmental offices, etc.

Paul had lent us his Honda and warned us about the only one-way street in town but guess we got so preoccupied with watching the market and people we forgot and soon we were flagged down by a policeman.

He spoke only Spanish and we spoke only English. In any event, he finally let us off after examining Paul's registration and Ed Steer's (VE8ML) driver's license. We did notice that on his chart the fine for this offense is 500 soles or about \$10.00.

We were told to look up Roger Mari, OA-8A, who used to be an aeronautical photographer for the Peruvian government and is now involved in commercial radio for some of the oil companies. We had been told that he had been instrumental in arranging a tour of one of the plywood factories for Robert Eshleman, W4QCW, when he visited there last year. Roger gave us a card of introduction and we journeyed over to the plywood factories and saw the complete process from the bringing in of the logs to the finished laminated plywood.

Then we journeyed back to Yarincoacha and I hammed in the afternoon and finally got through to Kenya and made arrangements for my rig to be brought back as far as London by Bob Hope, 5Z4LW, in Nairobi. Was sure good to keep in touch with the old gang. Also talked briefly with Carl Reder, VQ9R. Got a phone patch into my folks and it was great to talk to Fresno with such good band conditions.



Carl Reder, VQ9R

Friday, February 11th

After a short contact with Father Moran, 9NIMM, and Ben, XW8DO, we left the base by boat and went up Lake Garinacocha, a cut-off bend of the Ucayali River to the village of San Francisco. It is about 12 miles by boat. It was a delightful trip and we saw many other Indian villages along the way.

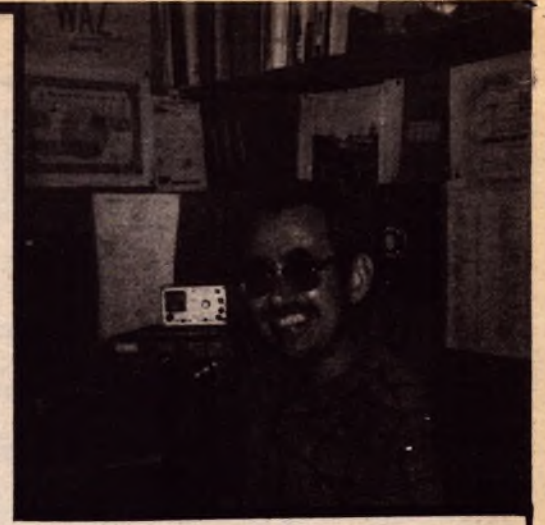
We spent about an hour at the village and took many pictures of their grass-thatched huts, their school, church, children, livestock, chickens, ducks, boys fishing with spears in dug-out canoes, etc.

It was a beautiful day with sunshine although a bit on the warm side. Enroute back we were given quite a performance by a large group of porpoises which proceeded to jump up out of the water.

We arrived back just in time for lunch at the cafeteria. Hammed most of the afternoon and chatted with my QSL manager, Doug McKoen, VE6AKV.



Bud McKoen, VE6AKV, and XYL



Paul Wyse, OA8V

Paul had made arrangements for me to join two German women on a float plane trip to the village of Sapasoa. We flew at an altitude of 1,500 feet and got a bird's eye view of the whole area, the river and all its tributaries and the lush thick vegetation and lots of trees. If a plane ever went down there it would be next to impossible to ever locate it.

When we landed the whole village was on hand to meet us and observe us. The Chief of the village met us and introduced us to his family and showed us around. They had just caught some fish and were broiling them rather like barbeque style with bananas. The fish looked very tasty until I noticed a little boy eating some and the flies were so thick he got extra protein with his fish. The dogs were so skinny and covered with sores that you wondered how they ever survive. Also, saw for the first time two colorful parrots but they were very quiet and hardly moved and looked sick.

The water level was so high that we couldn't go from one end of the village to the other except by dugout canoe which wasn't very stable and one of the German ladies was quite elderly and had a stiff leg but we managed to get to the other side without a mishap and then the local school teacher greeted us and showed us around the school and introduced us to his family.

Some of the people did not want their picture taken as they had all been dyeing their hair and as a consequence their hands and other parts of their faces were very black with dye.

There was one transistor radio in this village but it was quite sufficient as you could hear it all over the village. They said there were about 175 people living there. They have bananas, oranges, grapefruit, papaya, yuca which is similar to taro in the South Pacific, potatoes, corn or maize, rice, etc.

I saw quite a few of the treadle sewing machines and the people seemed quite well dressed. We spent about an hour there and fortunately one of the German women who works at the Linguistic School could communicate with them.

She said that it was advisable not to wear slacks to some of the villages as such would imply that we were "bad" women and consequently we were dressed in dresses but the mosquitos really had a heyday.

We left around 5:20 and were back in the base in about 20 minutes. What a marvelous invention the float plane is for this type of work.

(Next page, please)

Darleen



(Continued from previous page)

About 7:00 p. m. we arranged transportation to go to Pucallpa for a Chinese dinner. Had won ton fritos, fried rice with shrimp, a beef dish with rice, bell pepper, onions, etc. The won ton fritos had a beef mixture inside and were delicious when dipped into the syrup sauce they use. After dinner we went to a local ice cream parlor and had a banana split which was not only refreshing, delicious, cooling but also very fattening.

I went to bed very tired and with a slight headache which got a bit worse. Then I got up briefly to get on the radio and heard my very good friend Peter Hoffman, OE3PHA, in Ternitz; then talked to Joseph Kuehs, OE9JKI, (who had been at the party in Gampin, Liechtenstein, the night before I left) and then Ross Pentimalli, IIAA, in Rome. It was so wonderful to hear my good friends again. Then back to bed and slept.

Saturday, February 12th

After a delicious breakfast of home-made rolls and coffee, we were given a tour of the base, the printing plant, radio communications office, museum, etc. Then I went through the hangar and went through Paul's communications facility.

Having packed earlier, we regretfully left for the airport around 1:00 p. m. Upon our arrival, a great shower of rain arrived. Paul had promised us a rain storm and said it was possible we might not be able to leave by car but we made it okay. After an hour's flight we were back in Lima having seen the highest mountain in Peru, over 21,000 feet and covered with snow.

Then back to the Sterental's home and I rushed off to the beauty parlor to get my hair done and then back to the house to relax and change clothes before going out on the Pan American Highway to a restaurant called "Granja Azul".

It was 20 miles from town in a superb Spanish colonial setting. We had a wonderful chicken barbecued on a spit with delicious green salad. We had crepes suzette for dessert while beautiful music was being played by an excellent orchestra.

Sunday, February 13th

In the early afternoon we drove to the beach for a few hours of sunshine and I managed to get a slight sunburn, this being my first exposure to the sun near the equator since I was with Cristina (EA8GZ) in the Canary Islands the last week in October.

That night we had a lovely buffet dinner on the patio with about 20 present. There were OA hams and a couple from the American Embassy. We had a delicious beef stroganoff, rice, salad, chicken and a special dessert prepared by Becky Sterental, mango-peach pie.

Monday, February 14th

Checked into the Southeast Asia Net at 7:00 a. m. after having received a most wonderful Valentine's Day surprise—a QSO with Geoff Green, VS6DA. He and his wife and two lovely daughters will be arriving

in Los Angeles either March 17th or 18th so I have changed my plans so that I will arrive in Los Angeles at that time also to have our first eyeball QSO. We missed by about one day an eyeball QSO in Perth and then by about two days an eyeball QSO in Nairobi so this being the third time, I am sure to succeed. Geoff is a pilot for Cathay Pacific Airlines.

In the afternoon I was driven to the Amano Private Museum and was given a private tour by a Japanese guide. The museum is the private collection of a Japanese man who has collected many rare ceramics and textiles from the early cultures of Peru. You can only visit the museum by private appointment. It is a very strange experience to be the only tourist visiting a museum and to see such rare treasures so well displayed and maintained.

Returned for dinner and had artichokes for the first time. I am certainly enjoying many new foods here in Peru. The sauce with the artichokes was excellent. Speaking of new foods, I shall never cease to chuckle over an event which happened one day last week at lunch. We had a visitor from North America who had never tried or seen avocados before and he hesitated before taking a bite and told us he thought it looked like "cheese gone bad". Needless to say, many people disagree with him, including myself. It is just that I can't afford to eat them at home!

Got on the air and it was unbelievably good band conditions, stayed on the air until 2:30 a. m. Talked to my folks in Fresno and also some of the gang in Sacramento including many other friends. Nearly all call areas were coming in well.

Tuesday, February 15th

Just as we were getting ready to go grocery shopping the fish vendor came by the house and we bought some fresh fish—that's really service! Then we went shopping, one store specializes only in olives, another in cheeses; and another in special kinds of bread and then a regular supermarket. It was very much like any we have except the variety of fruits and vegetables is much more extensive.



Marcos, (XE1TX) and Nellie, (XE1CI) Lazard



Mary Ann Crider, WA3HUP, and OM Charles, W3GE

Got on the air briefly in the afternoon to keep a schedule with Mary Ann Crider, WA3HUP, and was lucky enough to talk to Nellie and Marcos Lazard, XE1CI and XE1TX; as well as YL Hunter Broughton, G3-XBR. In addition I had the pleasant surprise of talking to Bill Harris, WA6KUR.

I QSO'd with Bill for the first time when I was VR5DK and he was in a hospital bed in traction. We had many subsequent QSOs when I was operating as ZLIATC but then due to bad propagation, etc., did not talk to him again until today.

Took an afternoon drive around Lima and must say it will be a very sad day tomorrow to leave Lima. My visit to Peru was far greater than I could have dreamed --a most interesting country with so much to offer and such wonderful friends.

Wednesday, February 16

After checking into the Southeast Asia net for the last time from Peru I stomped on the suitcase to try and fit everything in but it surely was a struggle. Then, out to the airport for my noon flight to Guayaquil, Ecuador where I will be meeting HC2HV and others. In a couple of more days I will be operating as /HC8 in the Galapagos Islands and hope to renew many old acquaintances I have made over the past year.

(Continued in next month's issue.)

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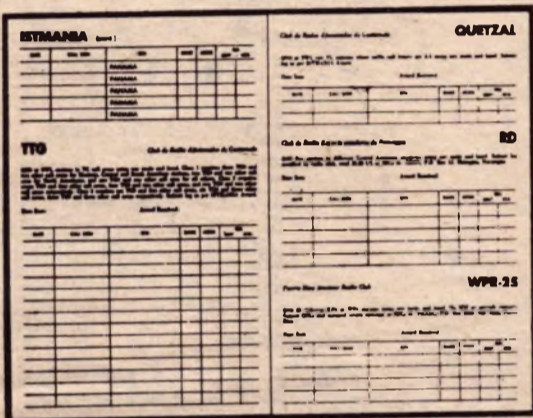
mitted with the award application.

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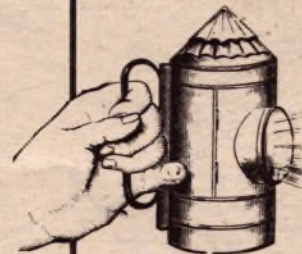
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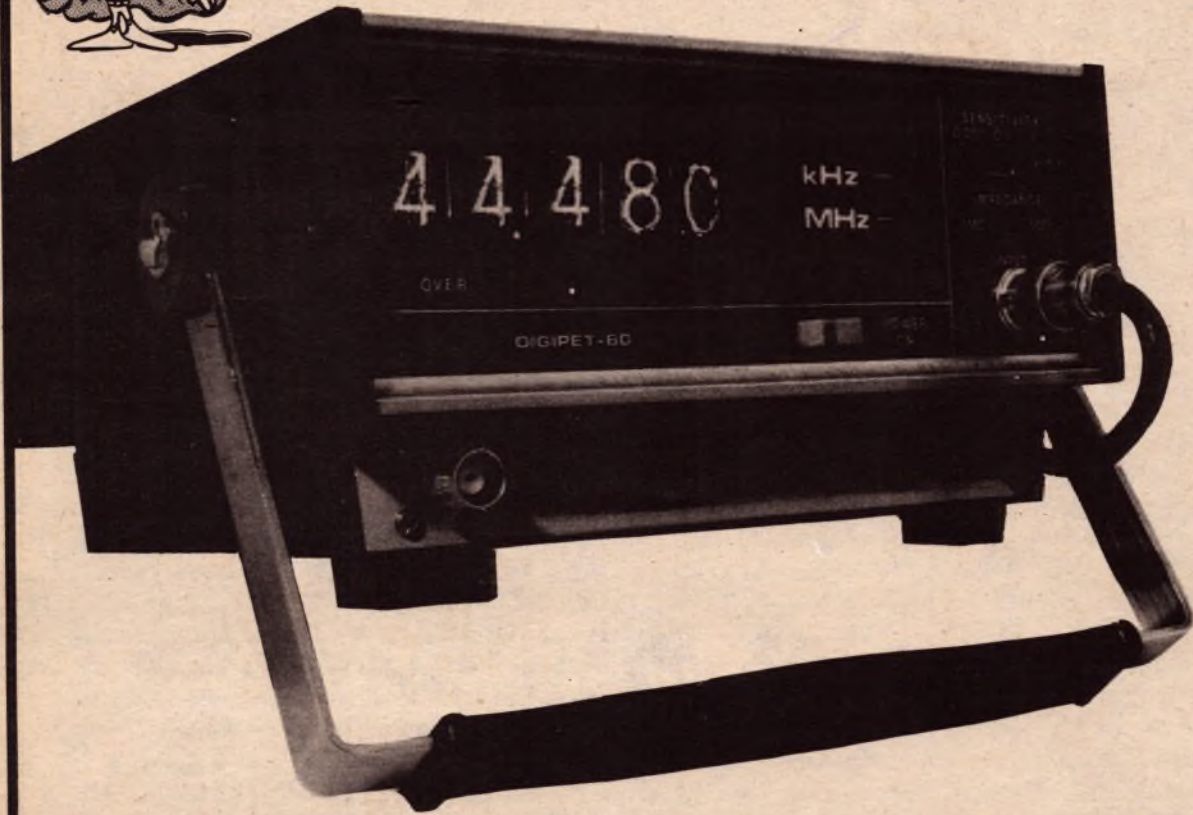
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Reference frequency: 10 MHz.

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Aging rate: 1 part in 10⁶/week.

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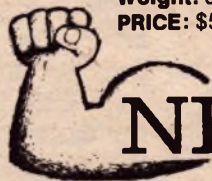
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 Dr. Robert Martin, W7YE, Tempe, AZ
 Paul Lonke, W6KVB, San Diego, Calif.
 Rush Drake, W7RM, Hansville, Wash.
 Neil Skinner, W6HQQ, Pomona, Calif.
 Ray Reynolds, WA2TPC, Trumansburg, NY
 Brad Berryhill, WA6JJB, Long Beach, CA
 James Bradley, Jr., WA7LQQ, Kalama, WA
 Alan Rath, WB6KJK, San Diego, Calif.
 Dr. Sid Ibrahim, ST2SA, Medani, Sudan
 Max Nicolino, OA4ED, Lima, Peru
 Herbert Peery, W0GQR, Trenton, MO
 Earl Payne, K0BEA, Aurora, Colorado
 Warren Bergmann, W0TDR, Wbstr. Grv. MO
 Fred Compton, K8IOF, Flint, Michigan
 Lucien Henault, W1ZPW, Grafton, Mass.
 Fernando Ardavin, CO2FA, Havana, Cuba
 Glenn Yabuno, WN6MUL, Fresno, Calif.
 Max Otto, W0LFF, Iowa City, Iowa
 Lloyd Brown, W2KAE/4, Ocala, Florida
 Craig Rutledge, WB6NUM, Sacramento, CA
 (Continued next issue)



ANNOUNCING 160 Meter DX TEST

1972 - 1973

Transatlantic and Transpacific

40th Annual Transatlantic 72/72 160 Meter DX Tests

(Embracing the entire Eastern Hemisphere)

Dates: Nov. 19th -- Dec. 24th -- Jan. 14th -- Feb. 11th

Times: 0500-0730 GMT Sundays

Frequencies: W/VEs -- 1800 - 1807 DX--1825-1830
(DX-window)

6th Annual Transpacific 72/73 160 Meter DX Tests

(Embracing the entire Western Hemisphere)

Dates: Nov. 18th -- Dec. 23rd--Jan. 13th--Feb. 10th

Times: 1330-1600 Saturdays

Frequencies: W/VEs--1800-1807 Others 1800-1805, except
JAs--1907.5-1912.5 VKs--1800-1805
ZLs 1875

Continuation of these transatlantic "tests", held since 1932, are symbolic and reminiscent of the original crossings of the Atlantic by the radio signals of Marconi, Deloy, Schnell and Godley 1901 to 1924 - and are lots of fun.

Also, the propagation information developed is adding to and developing the techniques of communication on these low frequencies and is a very worthwhile contribution.

PROCEDURE

CALLS: "CQ DX TEST", First 2-1/2 minutes of alternate 5 minute periods, listening between. W/VEs lead off the first 5 minute period, then alternate 5 minute periods thereafter. DX follows, 1st 2-1/2 minutes of second 5 minute period, then alternate 5 minute periods thereafter. Thus, each CQs 1/2 of their respective 5 minute period and listens for answers the other half. Set clocks accurately by WWV. Keep to 5 minute periods accurately-unless in QSO.
REPORTS: To WIBB and/or to your favorite news media.

CONDITIONS

INDICATIONS: Are that this should be a most excellent season. Sunspot numbers are low and will help L. F. especially. Everything should be "fine and dandy" for "Working DX the hard way - on 160".

73 and best DX -- de Stew Perry, WIBB



SOUTHWESTERN DIVISION

1972 ARRL CONVENTION

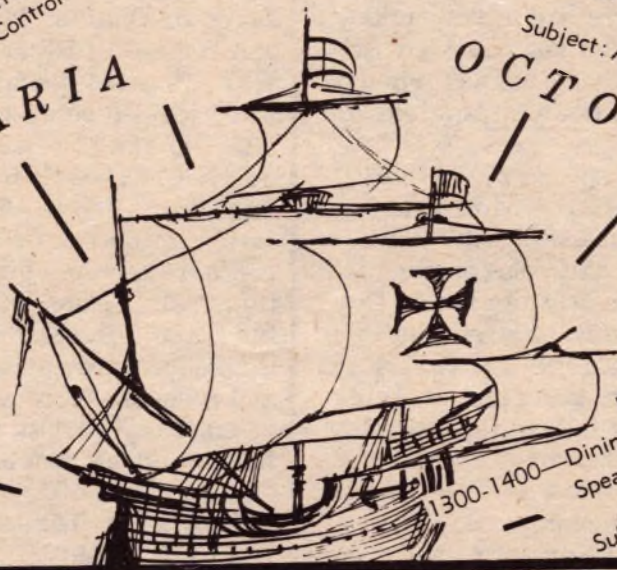
Convention Center Santa Maria, California

1430-1530—Vandenberg Inn
Speaker: W. R. Nelson WA6FQG
Subject: Noise Control

0900-1000—Vandenberg Inn
Speaker: Jerry Hall K1PLP, Assistant
Technical Editor of QST
Subject: Amateur Antennas for DXing

SANTA MARIA

OCTOBER 21 22



1300-1400—Dining Hall
Speaker: Perry Williams W1UED
Subject: Ham Rules in the Making

**NO HURRY-----TWO DAYS OF FUN AND RELAXATION-----NO PRESSURE
FREE PARKING CITY WIDE-----CAMPER SPACE ON THE GROUNDS
TALKS-----TOURS-----CONTESTS-----EXHIBITS-----SWAP MEET
SANTA MARIA BARBECUE-----ALL YOU CAN EAT!**

Southwestern Division ARRL Convention - Santa Maria, Calif. - Oct. 21 & 22, 1972

REGISTRATION DATA AND FORM

Name _____ Call _____
Street _____
City _____ State _____ Zip _____

I MAY WANT TO ATTEND ONE OF THE FOLLOWING BREAKFASTS ON SUNDAY, OCT. 22. (check which)

- | | |
|--------------------------------|-------------------------------------|
| <input type="checkbox"/> DX | <input type="checkbox"/> VHF/UHF/FM |
| <input type="checkbox"/> QCWA | <input type="checkbox"/> MARS |
| <input type="checkbox"/> WCARS | <input type="checkbox"/> RTTY |
| <input type="checkbox"/> | <input type="checkbox"/> MOBILE |
| <input type="checkbox"/> | <input type="checkbox"/> TRAFFIC |

Check/MO for \$ _____ enclosed
Make Payable to: **HAMCON, INC.**
MAIL TO: **HAMCON, INC.**
BOX 695
SANTA MARIA, CA. 93454

NOTE: TICKETS FOR BREAKFASTS WILL BE SOLD ON SATURDAY, OCT. 21, IN THE MAIN BUILDING. PRICES MAY VARY AND EACH BREAKFAST WILL BE UNDER THE CONTROL OF A SPONSORING GROUP. WHATEVER BREAKFASTS WE CAN ARRANGE WILL DEPEND ON A SPONSOR AND YOUR INTEREST. (AT THIS TIME WE ARE NOT SURE WE WILL HAVE ALL THOSE LISTED ABOVE.)

Pre-Registration Closes October 7, 1972.

MAKE BADGES AS FOLLOWS:

Call	Handle	City	NUMBER	EACH PERSON
_____	_____	_____	<input type="checkbox"/> REGULAR PROGRAM W/BBQ AND ALL DRAWINGS	\$12.50
_____	_____	_____	<input type="checkbox"/> OR SAVE \$2.00 BY:	
_____	_____	_____	<input type="checkbox"/> *ADVANCE REGISTRATION (Before Oct. 8)	10.50
_____	_____	_____	<input type="checkbox"/> BBQ ONLY (Includes BBQ Drawing)	8.50
_____	_____	_____	<input type="checkbox"/> REGISTRATION ONLY (All Events Except BBQ and BBQ Drawing)	5.00
_____	_____	_____	<input type="checkbox"/> SOLVANG TOUR	2.00
_____	_____	_____	<input type="checkbox"/> HEARST TOUR (If this person has a Paid Reservation that Includes BBQ)	4.50
_____	_____	_____	<input type="checkbox"/> HEARST TOUR (No BBQ Reservation Needed) SEE "TOURS" INFORMATION IN THIS FLYER	7.00
_____	_____	_____	<input type="checkbox"/> DAYS CAMPER SPACE @ \$1.50 A DAY	\$ _____

I PLAN THE FOLLOWING HOUSING:

- HQ HOTEL
 **REC. VEH.
 OTHER

**REC. VEH. Includes Campers, Travel Trailers, Motor Homes, etc.

SATURDAY NIGHT AT THE CONVENTION

At 2100 the Saturday night entertainment gets underway with Wayne Nail WB6CBW and his "Physiograph Life Science Instrumentation Demonstration." This is an amusing demonstration of brain waves and things like that with LIVE (volunteer) subjects. DON'T MISS IT!

AT MIDNIGHT . . . When else? The Palisades Amateur Radio Club of Culver City will conduct the Wouff Hong Ceremony. We still have some details to work out with Kathy Braunstein WB6BOY, Club VP, but this should be GOOD . . . Stay Awake!

*Advance Registration Closes October 7, 1972.

HOUSING INFORMATION

The Vandenberg Inn is the Headquarters hotel. Make reservations directly with the Inn or the Hotel/Motel of your choice. Payment for one night must accompany your request for reservations at the Vandenberg Inn. Special convention rates are \$12.00 for single and \$16.00 double or twin. Be sure to advise the Vandenberg that you are attending the ARRL Convention to get the special rate. Cut-off date for guaranteed reservations (or cancellation without penalty) at the Vandenberg is October 13.



DR. OWEN K. GARRIOTT (PhD) W5LFL
NASA Astronaut

Born Nov. 22, 1930, in Enid, Okla. Enid HS, BSEE Univ. of Okla., 1953, MSEE Stanford Univ. 1957, Doctorate EE Stanford Univ. 1960. Dr. Garriott was selected as a scientist-astronaut by NASA in June, 1965, and has been designated science-pilot for the 56-day Skylab 3 mission, the second manned flight of the program. Hobbies: Amateur radio, sailing, scuba diving. We proudly welcome Dr. Garriott as our BANQUET speaker.



A. PROSE WALKER W4BW

Chief, Amateur and Citizens Div., FCC

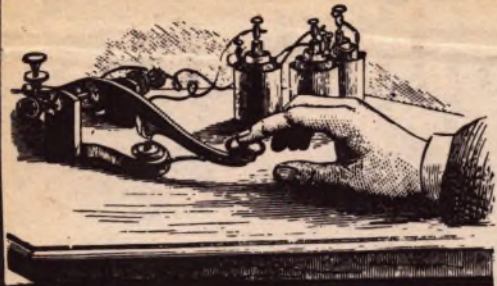
Born Birds Run, Ohio. BS Denison Univ., Granville, Ohio, 1932. Graduate work in physics at Ohio State University. Mr. Walker first joined the FCC in 1940. Assignments have included Broadcast Bureau and TV Allocations Branch. Early in 1971 Mr. Walker was named Chief of the Amateur and Citizens Division, FCC, and since that time has been in great demand as a speaker at Hamfests and Conventions. We are indeed fortunate to have Mr. Walker as our KEY-NOTE speaker.

SWAP MEET

Facilities for Swap Meet-Flea Market will be available both Saturday and Sunday. Hours will be 1030 to 1600 Saturday and 1000 to 1500 Sunday. A 4 x 8 ft. table rents for \$2.00 a day. (1/2 table, 2 ft. x 8 ft. will be \$1.00.) Bring your GOOD junk and let it change garages!

Worldradio

will be at the Santa Maria convention. We look forward to meeting and conversing with our friends who attend.



REPORT TO OUR READERS



Dear Friends:

The salutation above is indeed a sincere one, for our readers are truly friends.

A few issues ago, our first anniversary issue, we shared with you a bit of the history and trials and tribulations of a new publication. The response was a night-and-day one or, in our terms, one-hundred and eighty degrees out of phase.

As a rule, when we mail out thousands of sample copies each month, three percent of the recipients subscribe. That issue, which many called our best ever, (with the first stories of Amateur Radio assisting the victims of the Rapid City Flood) received far less new subscribers, percentage wise, than previous issues.

We imagine many, when we "told it like it is" were frightened off, figuring we were going to go "belly-up" (never happen) and didn't want to risk their five bucks.

However, our real friends--not the faint of heart--really got behind this paper and came to our rescue. What a difference there is in people! That the last two issues grew 20% in pages over that of a few months ago is indeed testimony to the efforts of our friends--readers and advertisers.

We would like to offer our deepest thanks to the many who sent in gifts for the kitty. It was hoped that a personal note to each could have been written but we have just been swamped with the work of getting out the paper.

This would be an appropriate place to welcome three new lifetime subscribers: Robert McNair, W6MPZ; Warren Bergmann, W0TDR, and Roy Tucker, W6UZB, and his XYL, Kathryn, WN6SXG. Two other hams have started a payment plan on their forever subscriptions. One must admire people who have the conviction of purpose and the courage to back it up with \$50. And they have been our salvation. And world traveler Darleen Magen, HC2-YL, met half the postage bill of sending out 5,500 copies of the last issue.

Advertisers have dug deep in their pockets to help us grow. Adrian Fallert, WB8-GEW, of Fallert's Engraving and Ev Taylor, W6DOR, of Golden West Crystals both took a year's advertising---and paid for it in advance!

Ev recently wrote us a note saying, "In the 38 years that I have had a ham ticket, it has only been through reading WORLD-RADIO the last year that I have learned of the 'good'things'being done in Amateur Radio."

One is certainly inspired by the faith that so many have shown. Thank You.

You may have noticed the cover says NEWS of September, and you received it in the middle of October (it was printed Oct. 10). Our new schedule is to put the news of the month in right up to the last day, lock up the issue, finish it, and print as quick as we can. It's no big secret that monthly magazines pre-date the cover by about three weeks so as to allow for the time it takes it to cross the country. However, we are labeling this paper with what it contains, rather than just some arbitrarily set cover date. So when you get it, in the box is the news of what happened during the month it is labeled.

It is certainly a tribute to our readers that with a base of 1,200 subscriber/participant/contributors, we are able to put out this big a paper. The "actives" are our supporters. It is an exciting time here and we have some terrific articles for next month's issue.

The best news to hit this shack is that of more help in putting out the paper. Joining the staff is Craig Rutledge, WB6NUM. He is well known to Western Public Service System members as the editor of their newsletter. An elementary school teacher, he has started to answer our mounting unanswered correspondence (sorry) and other duties.

Craig's wife, Linda, who was also a teacher until the birth of their son, will be setting the paper into type. This lifts a tremendous burden off ye olde editor's back who has been doing it up to now. With Craig and Linda, a couple of bright and shining people on the team, things should really begin to happen.

Thanks for all the help up to now, the readers are making it happen. Those who read the page four masthead have seen that it says that this paper is published by WB6AUH, and friends. That "and friends" is you.

Armond

ARRL

Official Bulletin #392 - September 30, 1972

The ARRL Executive Committee met today to examine nominating petitions filed by members for League Directors and Vice-Directors. By reason of nomination of but one eligible candidate the following were declared elected, the Hudson Division Director Stan Zak, K2SJO; Rocky Mountain Director Charles M. Cotterell, W0SIN, and West Gulf Director Roy L. Albright, W5EYB. Also declared elected were Hudson Vice-Director George A. Diehl, W2-IHA; Northwestern Vice-Director Dale Justice, K7WWR; Rocky Mountain Vice-Director Allen C. Auten, W0ECN, and West Gulf Vice-Director Jack D. Gant, W5GM.

Wherever the committee found valid petitions naming more than a single candidate for these offices and the candidates meeting the requirements as to League membership and freedom from any commercial radio connection, ballots were ordered mailed to full members concerned covering contested offices. Such offices are:

Central for Director--Haller, W9HPG, -Reichert, WA9HHH. Central for Vice-Director--Ebner, K9GSC, -Metzger, W9-PRN. New England for Director--Chapman, W1QV, -MacDonald, W1PEX. New England for Vice-Director--Radnay, W1PL, -Sullivan, W1HHR. Northwestern for Director--Lewis, W7JWJ, -Thurston, W7PGY, Watson, W7BQ. Roanoke for Director--Clark, W4KFC, -Harrison, WB4TBX. Roanoke for Vice-Director--Bulebush, WB4KKT, -Wickler, W4ACY. Southwestern for Director--Griggs, W6KW, -Meyers, W6MLZ. Southwestern for Vice-Director--Dahlman, W6-UEI, -Stilwell, W6NJU.

As soon as ballot returns have been counted in late November, results of all these elections will be given in a further bulletin from this station.

Send news of
upcoming hamfests
to Worldradio
2509 Donner Way
Sacramento, CA 95818

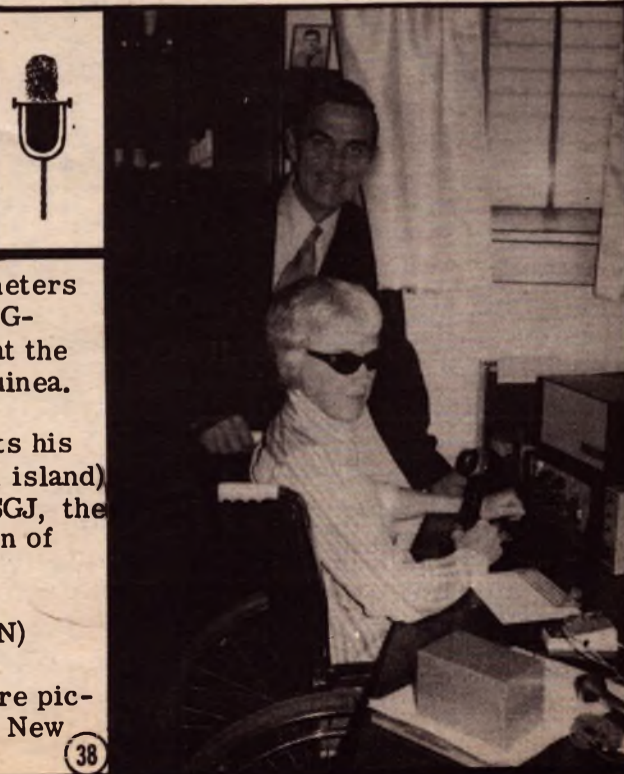


(right) Helen, WB0HOX, tunes 20 meters to show Fred Hargesheimer, W0EBG-VK9 FH, how the band often sounds at the Rochester end of a QSO with New Guinea.

(left) It's right there! Fred pinpoints his location in New Guinea (New Britain island) while visiting Sister Alverna, WA0SGJ, the voice of Assisi, in Fred's home town of Rochester, Minnesota.

(pictures from Jerry Stover, W5KZN)

In next month's issue-a major feature picture story on Fred's experiences in New Guinea.



10th
annual

Greater Bay Area Hamfest &

ARRL Pacific Division Convention

October 14 - 15, 1972

A Fraction of the Program
How to Predict Radio Propagation
Vic Frank, WB6KAP



A. Prose Walker, W4BW, Chief of the Amateur and Citizens Division, FCC

Convention Banquet Key-note Speaker-12:30 p. m. October 15.

Many Exhibitors

Army MARS, Navy MARS, Air Force MARS,

AREC, RACES, WCARS, AMSAT-OSCAR,

Swap Tables, Home Brew Contest, Code

Practice and Speed Tests, Amateur TV

Hidden Transmitter Hunt on 146.65, Mobile

Judging, Continuous Movies, NCDX Forum,

ARRL Forum with President Harry Dannals,

W4TUK,and much, much more....

Tickets \$10.00--After Oct. 8, \$12.00

Make checks payable to: Greater Bay Area Hamfest--Mail to: PO Box 751, San Mateo, California 94401

If you stay at the Royal Coach Motor Hotel, mention Greater Bay Area Hamfest for Convention Rate.

Royal Coach Motor Hotel - 1770 S. Bayshore Blvd. - San Mateo, California

Amateur Antennas and DXing

Jerry Hall, K1PLP, ARRL Tech. Staff

EIMAC Tube Linears

Merle Parten, K6DC

Towers, Zoning, and the Law

Ed Peck, K6AN

Solid State R. F. Amplifiers

Steve Snell, WB6LRI, SBE

Exotic Repeaters

Lance Ginner, K6GSJ

Hi-Power Solid State VHF-UHF Amplifiers

Tom Litty, K6RAD, TPL Communications

Phase Lock Loops

Art Fury, WA6JIJ, Signetics

State Disaster Plans, Office of Emergency

Services--Marion Hensen, W6NKR

WORLD RADIO
will be at the hamfest, we look forward to meeting our friends.



Perry Williams, WIUED, who will speak on "Our Amateur Frequencies and How We Get Them." Perry is senior assistant secretary of the ARRL. His work lies in providing membership services, information on legal matters, editing the "License Manual" and the "Letters" section of QST as well as writing "Happenings of the Month", the hard-news portion of the journal. He has been with the League since 1954, prior to that he was a radio operator with the Strategic Air Command, USAF. In addition to his job-and-hobby of Amateur Radio, Perry directs a small church choir and is a scoutmaster.

A new emphasis for the Hamfest this year is a special conference on Emergency Communications problems. Mr. Terrence Meade from the White House Office of Emergency Preparedness (Region 9) and his General Disaster Communications coordinator, Colonel T. Lew, will be aboard to check amateurs and MARS members out on the ramifications of Public Law 91-606, the Disaster Relief Act of 1971. Mr. Marion Hensen will represent the State of California Office of Emergency Services. There is a lot of action taking place at the government level due to the danger of earthquakes in the Bay Area, so these visits will be timely.

At the hamfest there will be a room showing movies featuring Amateur Radio in action during disaster situations.

The banquet rooms will be busier this year than usual. In addition to the main banquet, a joint MARS banquet will be held on Saturday night. There will be breakfasts on Sunday morning where FM repeater groups and public service nets will meet.

Of course the ladies will not be forgotten either. Their Saturday luncheon will be followed by a special program "Do You Talk to Your Plants?" by Wayne Nail, WB6CBW, and the Sunday morning Hobby-Fest will highlight the activities for the gals.

The Hamfest will also feature the well-known after banquet entertainment.



Jerry Hall, K1PLP, Assistant Technical Editor of QST, who will speak on "Amateur Antennas and DXing. Prior to 1968 he was a Field Engineer for Raytheon. His work involved large rhombics, Sterba curtains and other exotic antennas. His study of ionospheric propagation took him to many places, foreign and domestic. At QST he works mostly on RTTY, SSTV and other specialized communication systems.



A Plan For Emergency

by Arthur Smith, W6INI

A. PURPOSE: This plan is intended to suggest ways in which ARRL leadership, sponsorship and participation can improve the organization of radio amateurs for emergency communications and more fully utilize the potential of the Amateur Radio Service. The details and ideas set forth herein are not intended to be the only solution, but they should generate thought and stimulate action.

B. BACKGROUND: As a result of listening to on-the-air activities of amateurs during recent emergencies, I am impressed by two things - first, the dedication of individual amateurs, and second, the absence of organization among them. The result is that amateur radio potential is far from being effectively mobilized for emergency communications. This observation is the result of listening to phone bands during the recent emergencies and the 1971 Los Angeles earthquake.

During the Rapid City, South Dakota disaster early traffic pertained to the need for medicine, food and clothing. It was in the form of operator-generated comments, addressed to no specific person or agency and contained no signature to indicate its origin or authenticity. Later, health and welfare requests and replies similarly were not in any semblance of a message format, lacking station and place of origin, containing no address or signature. Thus none of the traffic heard showed any indication of official origin or destination.

In some instances health and welfare inquiries were answered exclusively on the basis of whether or not a telephone was answered. One station making replies based his answer on whether or not a certain street was known to be flooded. Thus, no positive information was obtained, unless a phone was answered, as to the welfare of the inquirer and undoubtedly created greater concern on the part of the inquirer. (See "Worldradio", July, 1972)

C. DISCUSSION: According to Article 2 of its Articles of Association, the American Radio Relay League has an obligation to the "furtherance of the public welfare." This is reflected in the Rules and Regulations of the Communications Department, paragraph 1, which states in part as its purposes and objectives "The organization of members for practical communication, with particular attention to emergency preparedness and communications in the public interest; the promotion and sponsorship of message traffic and emergency networks and systems..."

Thus, it seems logical that the ARRL should take aggressive leadership in creating an organization which can meet the above obligation and objectives. It is interesting to note that a "cooperative understanding" has existed between ARRL and the American National Red Cross since 1940, however, implementation of this understanding, at the present time, consists only of informal liaison at the national level, mention in sample ARPSC organizational charts, and the suggestion that ECs should contact the disaster chairman of the local Red Cross chapter. The absence of a system or plan to tie all these entities together is apparent.

Whatever might be created in the way of an organization to support the Red Cross, or other agency, must have flexibility - to meet any type of situation that might occur, since no two situations will be identical. The system must provide for a structure to respond to the aid of the area affected, whether it is to request personnel, medical supplies and teams, food, shelter and clothing or to request additional communications assistance from adjacent communities or states.

D. SUGGESTED ACTION TO BE TAKEN: Any or all of the following might be implemented to strengthen existing amateur radio emergency organization;

1. AREC-organize National and Division liaison nets.
2. Red Cross-restructure ARPSC to provide a branch for support of Red Cross with a National headquarters to Area headquarters net, and nets from each Area headquarters to major chapters within each Area to implement the understanding.
3. Improve the official bulletin program.
4. Place WIAW in full operation during emergencies, or on published schedule operation, for both bulletins and two-way communications in connection with paragraphs 1, 2, and 3 above.

E. AMATEUR RADIO EMERGENCY CORPS (AREC) ORGANIZATION

1. AREC National Liaison Net - this net would tie the ARRL headquarters with each for exchanging emergency information, emergency situation reports, coordinate amateur activities during emergencies. (App I)
2. Division AREC Liaison Net (one per Division) - these nets would have representation from each Section and NTS within an ARRL Division for the purpose of exchanging emergency communication plans and for coordinating activities and resources during emergencies. (App II)

3. These nets are not intended to be volume traffic handling nets. Their prime purpose is to muster resources and effect whatever organization is required to meet a situation.

F. AMERICAN NATIONAL RED CROSS (ANRC) SUPPORT

1. Since ARRL is committed by written agreement to support a Congressionally chartered national disaster relief organization, it seems appropriate that implementation be made a part of the ARPSC. Thus it is recommended that a new branch be added for this purpose and called the "ANRC" Support System".
2. An "ANRC Coordinator" on the ARRL headquarters staff would have responsibility for this branch of ARPSC. He could be a regular staff member or a volunteer from the local (Newington) area.
3. The ANRC Support System should be a system in being, with at least a cadre staff of AREC members and equipment to be augmented when needed from local AREC sources. Regular drills and periodic exercises should be conducted to develop experience and keep the system alive and trained. The yearly SET should provide for complete activation and operation over an extended period of time in coordination with ANRC with a realistic exercise to be executed.
4. Key personnel for the ANRC Support System should be appointed by the SCM in whose section the Red Cross activity is based. They should be considered AREC members with a special assignment and not under the direct supervision of the Assistant SCM. (Note: the SEC is mainly concerned with communications internal to his Section while this area concerns matters external to the Section)
5. ANRC National Support Net - this net would provide direct, voice communications from the National headquarters to and between the Area headquarters for the purpose of marshalling personnel and

material resources of the ANRC when disaster occurs. It would have the capability of providing person-to-person communications by ANRC officials. Subsequent to initial marshalling activities, the net would provide a means for coordinating and disseminating health and welfare information. (App III)

6. ANRC Area Support Net-this net would provide direct, voice communications from major chapters, including the scene of disaster, for the purpose of marshalling personnel and material resources when a disaster occurs. It would have the capability of providing person-to-person voice communication by ANRC officials. Later it may serve as a means for coordinating and disseminating health and welfare information. (App IV)

G. OFFICIAL BULLETIN PROGRAM (App V)

1. Improve the quality and schedule of official bulletin transmissions.
2. Provide for more effective use of official bulletin transmissions when emergency conditions exist or are imminent. Include NTS participation.
3. Improve the Official Bulletin Station operation by raising standards and minimum requirements. Provide suitable incentives for greater participation. Provide PSHR points.

APPENDIX I

NATIONAL AREC LIAISON NET

A. PURPOSE

1. During emergencies to coordinate AREC activities in support of the emergency situation. Organize and provide support for such nets as are necessary. Conduct whatever other emergency business as may be required.
2. To develop plans for emergency communication, and exchange information.
3. To plan and conduct appropriate exercises.
4. To conduct post-emergency critiques for overall improvement.

B. GENERAL

1. One SCM in each Division should be appointed to act as coordinator.
2. Bands and frequencies to be selected to facilitate 24-hour operation.
3. Capability of voice (primary) and CW (secondary).

C. NET COMPOSITION

1. WIAW (or local station) (manning by local amateurs - individual or club)
2. One station representing each ARRL division, as determined by SCM-coordinator.
3. NTS representative (TCC Director)
4. ANRC headquarters, if needed.
5. AREC station at scene of emergency, if needed.
6. Other AREC, NTS officials as needed.

D. NET OPERATION

1. Routine, non-emergency

a. Meet (daily)(weekly)(monthly) on designated band/frequency, using A-3, for planning purposes and exchanging information.

b. A representative of each division and NTS should report in for each session. Coordinating SCMs may rotate among sections within their divisions.

c. Designate one schedule per month for coordinating SCMs to check in.

2. Emergency

a. Activate by prearranged plan using official bulletin transmission, NTS, monitoring services, phone calls, or other means.

b. Net to operate on continuous basis or on schedule as agreed upon or needed.

APPENDIX II

DIVISION AREC LIAISON NET

A. PURPOSE

1. During emergencies to coordinate AREC activities within an ARRL division in order to provide mutual assistance, and implement special communication requirements.
2. Exchange information and plan emergency communications and drills.
3. To provide the Director with a means of conferring with SCMs.

B. NET COMPOSITION

1. Net control station (as determined by coordinating SCM)
2. Each SCM in Division (or Asst. SCM, SEC, certain ECs as appropriate)
3. NTS (Appropriate Net Manager or Asst.)
4. Director and/or Vice-Director
5. ANRC liaison, if needed

D. NET OPERATION

1. Band/frequencies to be selected to facilitate 24-hour operation. A-3 emission (primary), A-1 emission secondary.
2. Routine, non-emergency - meet (daily), (weekly) monthly for liaison, exchanging information on emergency capabilities, phone numbers of key personnel, plan drills, and other administrative matters; Director contact with SCMs.
3. Emergency - to be activated to plans, manned by capable representatives of each Section and NTS. To operate on continuing basis or as agreed upon by participants.

APPENDIX III

ANRC NATIONAL SUPPORT NET

A. PURPOSE

1. To provide voice communications facilities between the ANRC National headquarters and each Area headquarters to expedite the marshalling of personnel and material resources in the event of a disaster.
2. To coordinate collection and dissemination of health and welfare information.

B. GENERAL

1. This net should be prepared to operate on a 24-hour basis during emergencies and on schedule at other times.
2. For maximum effectiveness stations should be located within their respective headquarters buildings to facilitate person-

Communications

This plan is presented here for its own value and purpose. Also, it may stimulate thoughts on organization by local public service groups. It is an example of the serious thought being given by dedicated Amateur Radio Operators to the problems of assisting during emergencies. Art Smith, W6INI, Assistant Director in the ARRL Southwestern Division, has invited WORLD RADIO readers to forward any comments or ideas, along the lines suggested, to him at 4515 Melisa Way, San Diego, CA 92117

to person voice communications by officials.

C. NET COMPOSITION

1. ANRC National headquarters-Washington, D. C. -(SCM MD-D. C. responsibility)
2. Eastern Area headquarters-Alexandria, VA (SCM Virginia responsibility)
Southeastern Area headquarters-Atlanta GA (SCM Georgia responsibility)
Midwestern Area headquarters - St. Louis, MO (SCM Missouri responsibility)
Western Area headquarters-San Francisco, CA (SCM San Francisco responsibility)

3. WIAW for liaison (or other Newington area station) as required.

4. Scene of disaster chapter, if required

5. Governmental agencies, as required for liaison (Civil Air Patrol, Dept. of Defense (Army), Office of Emergency Preparedness, P.O. Dept., U. S. Coast Guard, U. S. Public Health)

D. NET OPERATION

1. During emergencies-to be activated as soon as it is known that there is a substantial emergency. Means for activation to be developed.

2. Routine, non-emergency-The net should meet at regular, scheduled times, (daily) (weekly) (monthly) to test equipment, facilities, for training of participants, developing operating rules and procedures, exchanging administrative information, conducting periodic drills and exercises, and obtaining experience information as to bands and frequencies most suitable.

3. Emission: A-3 (primary); A-1 (scndry.)

APPENDIX IV

ANRC AREA SUPPORT NET

A. PURPOSE

1. To provide voice communication facilities between an Area headquarters and its major chapters to expedite the marshalling of personnel and material resources in the event of a disaster.

2. To coordinate collection and dissemination of health and welfare information.

B. GENERAL

1. One net is required for each of the ANRC areas. The net name will contain the name of the Area such as "ANRC Western Area Support Net".

2. Area nets should be prepared to operate on a 24-hour basis during emergencies and on schedule at other times.

3. For maximum effectiveness, stations should be located within their respective headquarters and chapter buildings to facilitate person-to-person voice communications by officials.

4. The Section Communications Manager shall be responsible for liaison with and providing communications service to the ANRC facilities in his Section.

C. NET COMPOSITION

1. Area headquarters

2. Major chapters, as required

3. Scene of disaster chapter

4. AREC liaison, as required

5. Governmental agencies as required for liaison.

6. NTS liaison, as required

D. NET OPERATION

1. During emergencies-to be activated as soon as it is known that a substantial disaster has occurred. Since this may be the only means by which the chapter in the disaster will be able to notify the Area headquarters, activation at the Area level may be the result of a news release, phone-patch notification, or some other means.

2. Non-emergency, routine-the net should meet regularly to test equipment and facilities, train participants, develop procedures, conduct drills and exercises, obtain band and frequency experience information, and exchange information.

3. Each area should determine the best bands and frequencies to serve its area. Emission: A-3 (primary); A-1 (secondary)

4. Net control should be delegated to the station best able to handle it.

APPENDIX V

OFFICIAL BULLETIN PROGRAM

A. PURPOSE. In addition to its present informational purpose, the Official Bulletin Program has a great potential to provide a supporting arm to the ARRL emergency communication service by transmitting emergency-related messages and bulletins before and during communications emergencies.

B. CONCEPT. During emergencies or imminent emergency situations, pre-planned, schedules bulletin transmissions can be used to transmit to amateurs in general and the AREC/NTS general information reports about impending or current emergency situations, FCC instructions, organizational information and instructions to activate needed nets, publication of periodic situation reports to stem rumors, and such other information as would contribute to the efficient operation of the Amateur Radio Service.

C. OFFICIAL BULLETIN TRANSMISSIONS.

1. Establish bulletin relay stations (CW), one in midwest and one on the west coast.

a. These stations would receive the bulletins direct from WIAW transmission, and/or via NTS. If recorded manually, they could also be taped for re-run benefits.

b. Retransmission would be by schedule at a time, and on a frequency, suitable for the area served. Manual or automatic means could be used.

2. Improve WIAW official bulletin schedules.

a. Discontinue 0400 (GMT) CW bulletin schedule. (This might be replaced by a bulletin relay station schedule)

b. Move 0000 (GMT) schedule to 0100 or 0200. (In California 0000 is 5:00 p. m. and not suitable for those who work.)

c. Establish schedule for 1500 or 1600 (GMT) (0800 or 0900 PDT), or other suitable daytime schedule.

d. Up-grade content of routine bulletins now transmitted.

e. Change present order of bulletin transmission with new special bulletins and official bulletins first, followed by propagation forecast and satellite bulletin.

f. Increase speed to 22 WPM with important ones repeated a second time at 30 WPM or higher, at end of schedule. (It would seem logical to require OBS to have tape recording facilities thus if they are unable to copy solid they can re-run at half speed.)

g. Draft bulletins in standard message format with particular attention to brevity in text (the language of a literary composition often generates unintelligibility), and including a suitable signature with name and position of sender. This is particularly important with such bulletins as FCC frequency restrictions.

D. BULLETIN TRANSMISSIONS FOR EMERGENCIES.

1. Publish a schedule to be observed by WIAW during emergencies and when they are imminent. This could be hourly, or less frequent, on the hour or the half-hour.

2. Provide for the Official Bulletin Stations to monitor frequently during emergencies and step up their bulletin schedules.

3. Use this method for transmitting instructions to the field organization during emergencies (and drills) such as messages to "All SCMs", or "All SCMs ___ Division" or other multiple-address messages to officials. (97.91 (a) and (b), FCC Rules and Regulations.)

4. The initial call for a schedule should include bulletin/message numbers to follow. Transmission should be in order of importance.

5. At the end of each schedule an announcement should be made of the time for the next (or next few) schedules.

6. Provide for certain stations in NTS to copy emergency schedules (perhaps one per Region) and pass pertinent bulletins/messages to stations in their Region.

7. Establish ground rules for NTS to effect delivery to ARRL officials for whom bulletins or emergency messages are intended.

E. OFFICIAL BULLETIN STATIONS

1. Require copying of WIAW or bulletin relay stations, manually or by recorder. (Discontinue mailing of bulletins!)

2. Require code proficiency of 25 WPM minimum.

3. Expand scope of PSHR to include OBS activity coverage during emergency periods so that important information can be timely disseminated.

4. (Encourage) (Require) SCMs to ensure daily coverage of official bulletin schedules and retransmissions by OBSs on frequencies and at times to best cover the entire section so that appropriate special bulletins and emergency information can be timely disseminated. (Several OBS's working as a team can do this)

6. OBS schedules, to be effective, should fit a pattern so that they will occur at the same time each day of the week on each active band that is suitable for local and section coverage.

The Worldradio Fund

RADIO AMATEUR INVALID AND BED-FAST CLUB

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

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, Calif.

WORLD RADIO donates ten percent of its subscription income into a fund which is equally divided among those listed below.

HANDI-HAMS

A group in the Midwest (W0) who teach the blind, handicapped and bedridden persons to become amateurs. The organization also, through donations, gives radio equipment to the handicapped.

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 USA, Australia, New Zealand, India, Hong Kong, Scotland and other countries. Volunteer chairman of the program is Byron Sharpe, W9BE.

RANCHO SORDO MUDO

Operated by Ed Everett, XE2YX, Rancho Sordo Mudo (Deaf-Mute), located one mile south of Guadalupe, Mexico, cares for 15 Mexican deaf-mute orphans.

AIRMEN'S MEMORIAL SCHOOL

Located on the island of New Britain, off the coast of New Guinea, the school was the first education for Ewasse Village children. The school and clinic is a non-profit foundation project of Fred Hargesheimer, W0EBG, of White Bear Lake, MN. 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 leave from UNIVAC and is teaching math at the school. He is operating as VK9FH.

COLEGAS y AMIGOS

The Southern California and Mexico Amateur 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. The group also works with the "Flying Samaritans" - the pilot/doctors who fly into remote areas of Mexico to give medical assistance.

S. S. HOPE

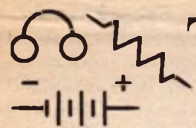
Amateur Radio has always been part of the journeys of the HOPE as she covered the world treating the ill and serving as a teaching hospital. HOPE also maintains permanent medical facilities in Nicaragua, Peru, Colombia, Ceylon and Tunisia.

AMIGOS de las AMERICAS

Working in Guatemala, Honduras, Nicaragua and Colombia, this group of U. S. high school and college youth administer immunizations, teach hygiene and reading and help in many ways. The volunteers go down for three week tours, paying their own expenses. Many amateurs are involved in the project.

INTERNATIONAL MISSION RADIO ASSN.

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 gear for ham missionaries of all faiths. 41



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, in serial form, so we may have a better knowledge of the vast and great history of Amateur Radio. This presentation is in honor of those who went before us and, through determination and hard work, gave us what we have today.)

Continued from last issue.

Part I-Pioneers

Chapter One... The Dawn of the Art

..... Meanwhile numerous other experimenters were securing strange effects through induction. Adjacent telephone and telegraph lines reacted mutually when there existed a strong enough field. Wild ideas sprang up briskly—names like Professor Trowbridge of Harvard, Alexander Graham Bell, Professor Oliver Lodge, Sir William H. Preece, Thomas A. Edison, A. W. Heaviside, Professor Hughes, and Professor A. E. Dolbear, were linked with these effects. Some attempted to visualize a signalling system for the safety of ships at sea, others actually foresaw telegraphic communication. Preece and Heaviside, in particular, achieved inductive telegraphy over appreciable distances. None of these methods was ever found practical. Some of their inventors, notably Dolbear, suspected that something other than inductive effect was required to produce the results achieved; and in fact they must have unknowingly utilized something more than induction where distances of more than a few miles were covered.

But it remained for Hertz to establish, in practice, the electromagnetic effect conceived by Maxwell, in theory—the practice of radiation, as opposed to mere induction—and so to point the way out of the labyrinth. Let us return, in brief recapitulation, to again emphasize the historic progression in the development of the radio art: From Faraday the Englishman, to Maxwell the Scot, to Hertz the German.

The debt that radio owes to Michael Faraday, genius born of an English blacksmith in 1791, is many-fold. He established the laws of magnetic induction, following this by building electric motors, generators, and transformers. He discovered alternating current. He evaluated the relative merits of different dielectrics used between condenser plates. But most important of all, he founded the electromagnetic theory of light. It was upon his work in this direction that the theories of the great Scotch mathematician, James Clerk Maxwell, were based. It was Maxwell who proved mathematically that Faraday's conceptions were tenable, and who added, along with its proof, the astounding assertion that electric and magnetic phenomena were identical with light—"Light consists in the transverse undulations of the same medium (ether) which is the cause of electric and magnetic phenomena." (From his "Electricity and Magnetism".)

Five years after Maxwell's death the young German student, Heinrich Rudolf Hertz, attempted the theoretical justification of Maxwell's mathematical work. After some effort in this direction he turned to an attempt at experimental verification. His resultant discovery consisted of finding a means for detecting the electromagnetic waves after they had been transmitted across space—the now historic "resonator", or induction coil and spark gap circuit.

The evolution of the radio art burgeoned after publication of the result of Hertz' experiments in 1887. The manner of this evolution was in the true spirit of scientific research. At no point was there a sharp, visionary breaking into intelligence on the part of one man; there arose no inspirational genius who caused the whole art to vivify into sudden birth. Each man added a little to the common heap of knowledge, and slowly, decade after decade, century after century, it grew.

Faraday... Maxwell... Hertz. Now for the next step in the progression.

In 1894 a young Anglo-Italian by the name of Guglielmo Marconi came along and gathered up the entire top of the heap of knowledge that had accumulated through twenty-five hundred years and put the devices he found there to practical work.

On April 25, 1874, there had been born in Bologna of an Irish mother and an Italian father a child they had named Guglielmo. In his youth he studied at Leghorn Technical School, and early became a disciple of Professor Righi of the University of Bologna, who for several years had been an active experimenter with inductive telegraphy. At the age of twenty, Marconi began experimenting with electric wave phenomena on his father's large estate just outside of Bologna. From that work grew the art of radio as we know it today.

Marconi did not invent any new device. He simply adapted the inventions of many other men, eliminated some of their laboratory defects, and combined them into a workable communications system. He took Righi's version of the Hertzian oscillator and used it for his transmitter; he took the coherer, which was a tube filled with metal filings with connecting plugs at each end—discovered by Hughes in 1878, then re-discovered by Branly—and used it for his receiver, later patenting it; but most important of all, he adopted modified versions of Loomis' aerial and radiated the electromagnetic oscillations along the surface of the earth for increasingly greater distances.

In 1896 he took the entire system to England and there, on Salisbury Plain, he sent and received a wireless message over a distance of two miles. On June 2, 1896, he filed his patent applications in the British Patent Office. In July his work was noticed

by Sir William Preece, who became at once his ardent friend, admirer, and sponsor. All this combined to draw the attention of the scientific world.

With somewhat understandable resentment and jealousy, these bearded scientists who had been working on the problem for years began to describe Marconi as a charlatan. He had invented nothing new, they said; he had only used the devices they had invented, and with which everyone was familiar. Now, three years out of his teens, he who had played no part in their discovery offered these devices to the world of science and proposed to patent them. No wonder the scientists were shocked. Branly, in particular, keenly resented Marconi's patenting the coherer, which he regarded as his own invention. It is difficult to say just how much weight these accusations bear. In point of fact, Marconi's patents were based not so much on the individual devices as that he had combined them into a practicable communications system, the first workable application of the Hertzian waves. He first made all these devices utilitarian. Certainly Marconi was not the inventor of radio. Equally certainly, he was the father of radio, for it was his adaptation of the fruits of others' research (of the prior conception of which, in some cases at least, he may not have been aware) that resulted in the art of wireless communication.

The popular press was divided in its opinions. Most newspapers and magazines decried his success. A few, either desiring to be sensational or convinced of the possibilities of the system, published laudatory, or at least sympathetic, articles. In the United States, "McClure's Magazine" carried two favorable articles during the dubious early years of Marconi's career, one in 1897 and one in 1899. "The Telegraph Age", the "Scientific American" and the "Journal of the Franklin Institute" discussed his tests from the scientific standpoint on an impartial basis.

Meanwhile Marconi proceeded with his experiments. He increased his range, first to four miles. By the end of 1897 he had communicated between ships at sea ten miles apart. Space telegraphy was being definitely established as practical over short distances. In 1899 Marconi improved his receiver by utilizing Sir Oliver Lodge's device of inserting a transformer between the coherer and the aerial, and celebrated by bridging the English channel, a distance of 32 miles, at the invitation of the French Government. In 1900 he came to realize the necessity for symmetry in the transmitting and receiving circuits, which represented an early form of syntony or tuning. Distances steadily increased. Finally at the end of 1901, he was ready for the greatest test of all, spanning the Atlantic.

(Continued next month.)



M A R N

MOSAIC AMATEUR RADIO NET

Deo et Fidei

MARN

11049 Avenue "E"
Chicago, IL 60617

The Mosaic Amateur Radio Net is an international, non-profit, non-commercial association dedicated to serving mankind and fostering international good will. It is an association of Masonic amateur radio brethren and members of the appendant Orders. Membership in the Mosaic Amateur Radio Net - better known by its acronym MARN - is open to all members of the Masonic order and those of the appendant Orders who possess any class of amateur radio operator license. There are no dues and the nominal membership fee is perpetual. You are invited to write for information.

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, knowl-

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

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

(de International Coordinator, W3FQT)



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

People Helping People

by Sister Mary, WA5VBM



Station WB2ERC, Joe Agostinelli, operator, with guest, Father Reno, at the mike.

Joe Agostinelli, WB2ERC, throws himself into one of the most difficult jobs on the 20 meter band every Tuesday night when he acts as Net Control Station for the IMRA. Reflecting his Italian lineage in his energy and competence, Joe can turn the most snarled up situation into calm orderliness in a matter of minutes.

A vigorous, brown eyed, brown-haired, native New Yorker, with a reassuring voice, Joe was born in Rochester in 1922 and has lived there all his life except for four years he spent in the Air Force. Joe is 50 years old and celebrated his 25th wedding anniversary in May. He is employed by Kodak in the coating end of film making... "Coating Control."

Joe first became interested in Amateur Radio during his Air Force days. Two of his buddies were hams, but Joe didn't follow up his interest at that time. Later, his No. 1 son built a crystal set and when a cousin who was a ham told about a Novice class being given by the Rochester Radio Club, Joe enrolled Joe, Jr., who was eight years old at the time. Joe, Sr., soon realized that he could easily pass the code test because of his radio work in the Air Force. Soon he took the test too and got his first ticket in April of 1961. He now holds the Advanced Class license. Joe, Sr., got the call sign WB2ERC and Joe, Jr., got WB2GHK.

Joe Agostinelli and his XYL, Dorina, live at 1937 Lotta Road with their three sons, Joe, Jr., WB2GHK; John, WB2HEX; and Jim, WB2ITL. The two older boys are in college and Jim is still in high school. Joe, Jr., and John do TV repair work to help with their school expenses.



The station of WB2ERC (The Agostinelli Clan) is almost entirely Heath. The exciter is the SB-101, the amplifier is the SB-220, Heath phone-patch, SB-610 signal monitor, Heath Oscilloscope, dot generator, plus a Heath color TV. The boys use the equipment in their TV repair shop. The antenna is up 60 feet on a crank-up, tiltover tower. Joe uses a Ham-M rotor and a TA-36 beam.

The IMRA was a natural for the Agostinellis. They do a lot of missionary work in their own parish and have many missionary priests and sisters visiting their QTH all year around. One day Joe got a call from a priest over in Kenya... a Father Dutto... and from that contact sprang Joe's radio missionary activity.

Joe was involved in an emergency in South America which received considerable national radio and TV coverage. It was a case of copper poisoning and Joe modestly says his part in helping in the emergency was very small.

New Officers of IMRA:

President-Sylvester Connolly, W1MD
Vice Pres. - Frank Savat, WA5YOI
Exec. Sec. - Fr. Dan Linehan, W1HWK
Corr. Sec. - Br. Robert Kreutzer, W8GYR
Rec. Sec. - Evelyn Mulhall, SWL
Treasurer - Fr. Jude Bradley, WA2YNO
Clerk - Frank Leary, K1YKQ

New Board of Directors Members

Sister Alverna, WA0SGJ
Tex Barbarite, W3FUS

New Idea Presented at Convention:

Pat Healy, WA4VWJ, is offering his services in a "Crash Program" of Amateur Radio instruction. It is designed to help those who are going to other countries, either as missionaries, volunteer workers, or residents, to get their ham license before they leave this country even though they may be short of time. Pat and his XYL, Shirley, have offered their home in Ft. Lauderdale, Fla., for this project.

The "telescoped package" includes lodging, use of radio equipment to gain operating experience, CW practice tapes and recordings, and audio-visual courses in radio theory supervised by Pat and other local hams.

Besides the tremendous value this is for future communication, this is what we mean by the IMRA being of service. Sounds to good to be true... just write for information from Pat and Shirley Healy, 1521 N. E. 40th St., Ft. Lauderdale, FL 33308. (They have a swimming pool, too.)

Emergency Network Nears Completion:

Father Ed Schmidt, OA4AAN, Lima, Peru, now has 19 of the proposed 28 stations composing the first phase of the "Rainbow Net" on the air. This is a project of the Peruvian Bishops' Commission on Means and Social Communication.

Each station consists of a modified HW-18 with four channel fixed-frequency capability. Father Ed has been busy putting up antennas in the most unusual places. He spoke of getting caught in a hail storm while he was up on a loose-slate roof putting up a dipole. Never a dull moment! (Might mention too... Father Ed up-graded his U. S. amateur operating license to Extra Class while he was in the States recently). Father Ed also said they were in need of funds to continue their work on the Rainbow Net. Anyone interested in helping Father Ed in this work?... His address is Father Ed Schmidt, S. J., PO Box 10226, Lima 1, Peru. If you think a dollar or two won't help... just try it. Hi!

A Final from HR5-Land:

Moises Quijada died on Monday, August 7, 1972. Moises, a 20-year-old native of Honduras, had fallen 45 feet from a scaffolding while working on a church in Guarita, Honduras, last year. At that time he was taken to a local hospital where his condition reached the critical stage. The members of the IMRA worked together to get this very sick young man to the Mayo Clinic in Rochester, Minnesota.

At the Clinic, his immediate problems were alleviated, but nothing could be done to repair his severed spinal column. He was given physical therapy and much plastic surgery repair was done on the ulcers which continually formed. Finally, Moises was discharged and he began the long trip back to Honduras. He was accompanied by his Philippino nurse, Floricita, who taught him to care for himself. After the nurse left, Moises did all right for awhile, then he began to deteriorate slowly. The main problem was infection and lack of feeling... "he just couldn't tell when he was hurting."

The IMRA assisted in communications until the very end. We will all miss Moises, but those closest to him feel the loss most keenly, namely, the operators at HR5JDC, and WA0SGJ, and W4RFA, who did most of the communication and transportation arrangements.

Silent Key:

Brother Jack Bauer, W8CQB, died on Saturday, September 2., after being stricken with a heart attack. It was his third attack in five years. He was buried at Colombiere College in Clarkston, Michigan, where he was stationed at the time of his death.

Brother Jack had been a member of IMRA since Feb. 1967 and was a past recording secretary, having been elected to that position in 1969 at the Miami International Convention. His death comes as a shock to all IMRA members, but especially those who attended the Rochester Convention with Brother Jack just a week before his death.

GIBSON GIRL CRT-3

Distress S.O.S. Signalling transmitter, dual frequencies with hand crank 300 ft. copper antenna wire, large yellow balloon which inflates to 8 ft. diameter, hydrogen generator to inflate balloon, tube and light.

20 sets @ \$25.00 each

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Letters



Larry Oakley, W7DNX.....

Reno stations W7DNX and W7IAD are looking for stations on 160 meters (1830 kHz) for contacts. On the air in the evenings at 2330 local time.

Al Shawsmith, VK4SS.....

Into most shacks there comes a sprinkling of lay minded visitors, i. e. non-Hams who neither understand the technicalities or the vernacular of Amateur Radio. The rig and the atmosphere of the shack quite often evokes, besides curiosity, a little wonder and bewilderment. Our hobby has grown to such sweeping proportions and has so many sub-activities within its framework, that it is impossible, in a half hour chat, to impart the full image of what AR 1972 style is all about.

This is where "WORLD RADIO" comes into its own. Not only does it present AR in the best possible light by focusing attention on altruistic endeavors but it is a newspaper printed in lay language and consequently understood by all.

Into the hand of a likely looking departing guest I press a copy of "Wr" with the suggestion, "Look this over in your spare time." Next day there's often a phone call and an enthusiastic voice says, "Hey, I never knew Hams did such things."

Earl Payne, KØBEA.....

I am strongly opposed to changing Call Signs to designate class of license. I'm very proud of my call. I have tried at all times to make it respected, not only state-side, but around the world. I take satisfaction in at least thinking I may have done this to a degree.

Others may have all the prestige and status they want, but I want to keep my Call Sign intact and respected.

Elvie Holman, WB6PZN....

I feel that Technician Class licensees should be allowed to operate in the Novice sections of the low bands. This would allow them to get their code speed up to 13 wpm for the General class license.

Larry LeKashman, W9IOP/8

I have been receiving WORLD RADIO since, I believe, its second issue (July '71) and am pleased to see it continue to grow.

Lou Seeberger, WA6HQT.....

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

Lloyd Phillips, W7BET.....

Ham radio needs this paper.

Bruce Cushman, KIDYA.....

This newspaper is without a doubt the most enjoyable, interesting and informative amateur publication I have read during my 15 years as a licensed ham.

Your editorial in the July issue should be published in every amateur periodical.

I enjoy the personal touch. What a welcome addition the newspaper and the foundation is. The ham fraternity needs "World-radio".

Rose Ellen and Bill Bills, WA2FGS-W2CDZ

We look forward to getting every new issue.

Joe Oliveira, WB6BJM.....

I like your paper because it is personal, informative and warm.

Rasheed Jalal, YK1AA.....

It is a wonderful journal making friendship between the radio amateurs.

Jan Williams, K2PLT.....

It certainly fills a void and has grown in quality over the months.

Bill Sievers, WØID.....

I find it most enjoyable and think that a publication covering the broad spectrum of the Amateur Radio Scene is long overdue.

Stan Kasper, W3ZGG.....

I enjoy reading your paper. It reminds us of the fact that Amateur Radio can be used as a public service.

Col. D. W. "Win" Titus, K6ART.....

Don't know how you do it but each issue of WORLD RADIO gets better and better.

Gordon Robinson, VE7BWF.....

First saw your paper when visiting VE-8ML, Alert, N. W. T. Very interesting articles on people I've talked to many times.

George Loetz, WA7JCB.....

Congratulations on filling a void.

Craig Rutledge, WB6NUM.....

WORLD RADIO is, without reservation, the most meaningful amateur publication going.

John Peer, W8LS.....

I enjoy your magazine. I think it is the best written, and most enjoyable, of any of the ham magazines that I subscribe to.

V. V. Holmes, WØLR.....

I wish to thank WØFZO for introducing me to WORLD RADIO, the first new publication in Ham Radio for years!

John Rice, W9MMB.....

Amateur Radio has needed something like this for years.

Raymond Petit, "Petit Logic Systems".....

I congratulate you and your readers and supporters for the positive and constructive tone of your publication and for your recognition of the need for your kind of paper.

Ken Broyles, WAØROK.....

A tremendous publication. I enjoy it immensely. All amateurs should read "World-radio".

H. J. Nelson, "The Callbook".....

We certainly enjoy your paper and would like to congratulate you on your first anniversary. It certainly fills a need in the Amateur Radio field and promotes the good will and friendship that radio amateurs wish to convey. Keep up the good work.

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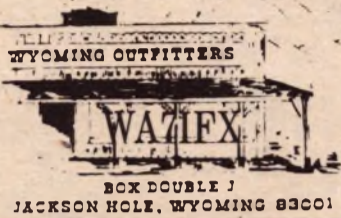


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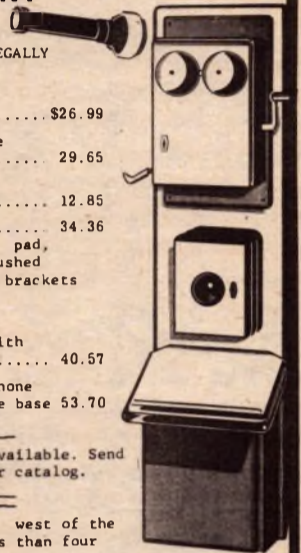
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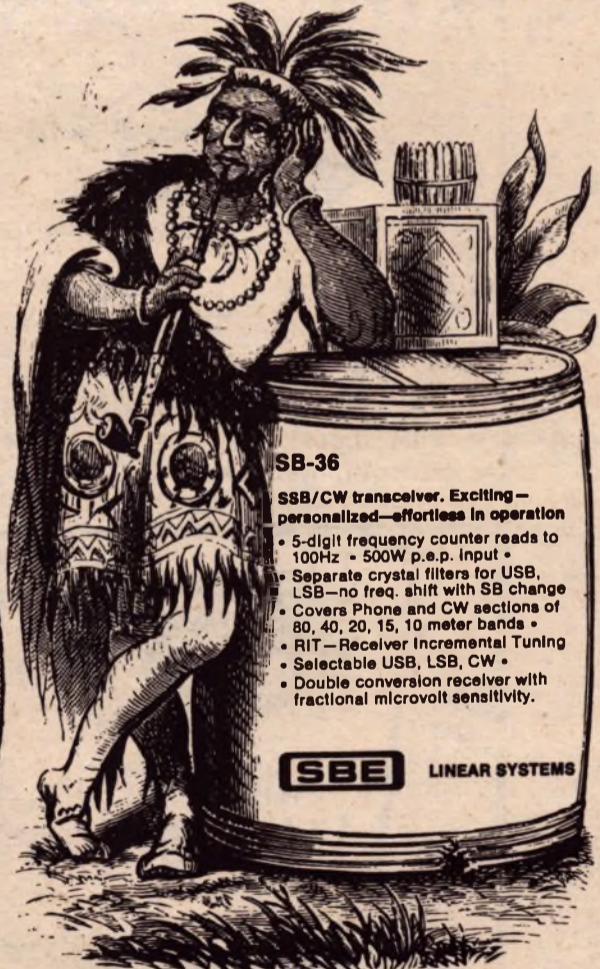
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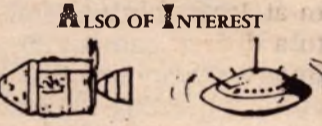


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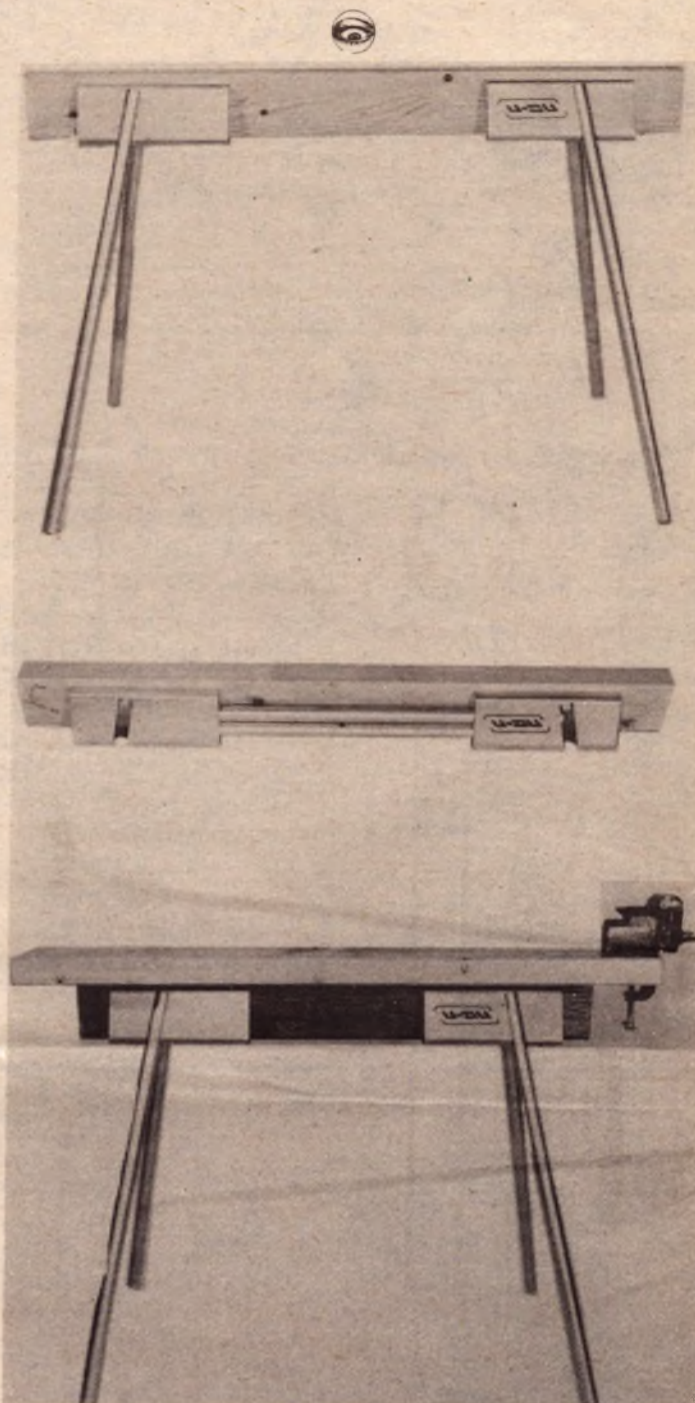
Manual for Radio Amateur Civil Emergency Service (RACES) Revised 1971-\$3. Figleaf Research Services, Box 237, Bethany, Oklahoma 73099

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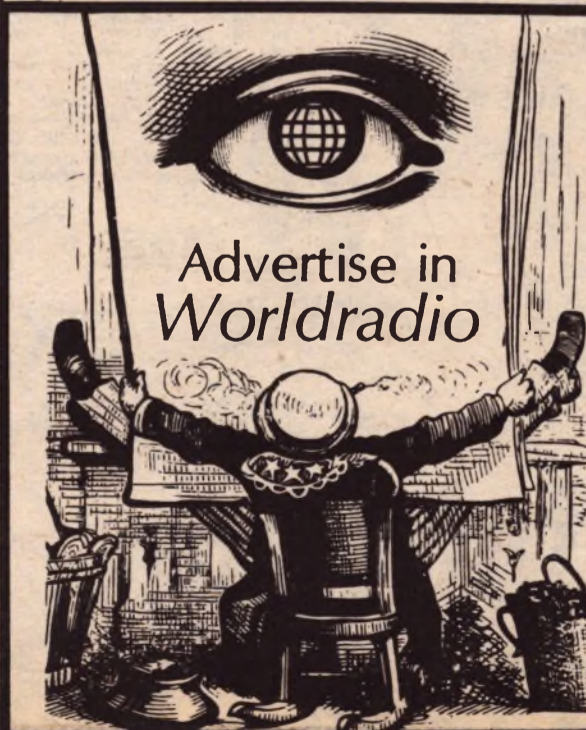
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