The Worldradio News

Vol. IV, No. 5 November 1974 50¢

LATE FLASH - sked For 15 Nov. 1709 Z

OSCAR 7 is near

A. Prose Walker, W4BW

FCC proposal

(Excerpts from the remarks of A. Prose Walker, W4BW, Chief Amateur and Citizens Division, FCC. Mr. Walker was banquet speaker at the ARRL Pacific Division Convention on 27 October 1974)

Number one, we 're going to propose something that will come out in the near future. A new communicator Class License with no code requirements, permitting low power, radio telephone operation above 144 Megahertz. It will have a reasonable entry examination attached to it, and I hope there will be incentives to develop the skills necessary for the beginner, the Communicator, to move up to the next higher grade of license.

Number two, taking into account the evolution of the Technician license, and operation in the VHF and above region, it is desired to bring the incentive licensing principle into this area also by the revised Technician License similar to the Advanced Class in the HF portion of the spectrum. It would incorporate sensible relations between requirements and privileges for use of all frequencies above 50 Megahertz with A1, A3, and F3 emissions. The maximum output, not input, hear me, output not to exceed 500 watts peak envelope power and a code speed of 5 words per minute.

Number three, this is the vertical

(Turn to page 2, please)

Bill Grenfell, W4GF, Warren Green, W7JY, and Bob Morris.

Ms. Lou Moreau, W3WRE, and Bill Grenfell, W4GF.

Hauck Award

by Bill DeWitt, W2DD

Ms. Lou Moreau, W3WRE (ex-WB6BBO), YL Editor of QST Magazine and Warren Green, W7JY, are the 1974 winners of the coveted Hauck Awards.

The well known amateurs were given plaques to commemorate the awards at the banquet closing the three day Fall Meeting of the Antique Wireless Association held at Canandaigua, NY.

The accompanying photos (by Al Crum, W2BWK) show former FCC Chairman Bill Grenfell, W4GF, (see page 18) presenting Lou and Warren with their plaques. Warren is flanked on his left by Bob Morris, Awards Chairman. The Hauck Awards were established by Harry Hauck, longtime associate of the famous Edwin H. Armstrong, inventor of the superheterodyne and innumerable other circuits.

Lou, whose home is now in Glenolden, Pa., held her WB6 call during a few years stay in California. She is the first woman to win either of the two Hauck awards. For 25 years, Lou has been documenting the history of the telegraph key. She has written numerous articles and lectured on this subject at meetings and conventions. It is for her fine work in documenting the history of the telegraph and key that Lou received her award which included a check for $100 as well as the plaque.

Warren received his award in recognition of his outstanding work in the preservation of historical artifacts. For many years Warren has been instrumental in locating, restoring and setting up numerous historical exhibits. The results of some of his most recent efforts can be seen at the Seattle Science Museum, not too far from his home at Mercer Island, Washington.

Bruce Kelley, W2ICE, Corresponding Secretary of the A.W.A. asked us to remind Worldradio readers that the two Hauck Awards are awarded annually. Readers knowing of exceptional work in either documenting the history of telegraphy or radio, or in the preservation of artifacts may contact Bob Morris, W2LV, Hauck Awards, Chairman, at RFD 1, Box 67, Sparta, NJ.

Honduras

by the FCC

Amateur radio operators in the United States, Honduras, Canada and several Latin American nations jointly undertook the responsibility for providing emergency communication service in the wake of Hurricane Fifi, which devastated one third of Honduras.

The day after Fifi struck, 21 September, Dr Enrique Avilar, Minister of Health in Paz, established an emergency communications coordinating committee -- COPEN, headed by Honduras amateur operator Alhandro Talbott, HR1ALT.

An emergency base station, HRØPEN was set up at Tequcigalpa, and contact to organize amateur support efforts was made with Noel Eaton, VE3CJ, Waterdown, Canada, president of the International Amateur Radio Union, and Harry Dannals, W2TUK, Dix Hills, N.Y., president of the American Radio Relay League, (ARRL), an organization of amateur radio operators.

With the assistance of the ARRL and a group of Miami amateurs, four long-range, high-frequency stations, 17 short-range, two-meter FM stations, and a repeater station were delivered to COPEN to fill an urgent need for equipment to provide communications both within Honduras and with the outside world.

(please turn to page 39)

(left to right) Lance Ginner, (designer of OSCAR 1); Jan King, W3GEY, Project Manager, AMSAT-OSCAR 7; Dick Daniels, NASA specialist, place OSCAR 7 on the Delta rocket at Vandenburg AFB. (photo by Dr. Norm Chaflin, K6PGX)

OSCAR 7

Just ten minutes before launch of a NASA Delta rocket, difficulty in the hydraulic system was detected. Thus, the orbit of OSCAR 7 was again delayed.

The launch was to have been on 13 November from Vandenburg AFB, Calif. This was also a delay from the original date of 29 October. As of this writing (14 November) no new date has been set. A special W1AW bulletin will be issued once the exact date is known. When it goes up OSCAR (Orbiting Satellite Carrying Amateur Radio) will have translators on these frequencies:

Input- 145.850 to 145.950 MHz
Output- 29.40 to 29.50 MHz

Input- 432.125 to 432.175 MHz
Output- 145.975 to 145.925 MHz
(output passband is inverted)

Beacon outputs are at 145.975 and 435.1 MHz

The 2 to 10 meter translator will be on Sunday, Tuesday and Friday. The 70 cm to 2 meter translator will be on Monday, Thursday and Saturday.

Orbit is similar to that of OSCAR 6; 102 degree inclination (retrograde, sun-synchronous orbit, period of 115 minutes, about 1/2 orbit (1 hour) out of phase with the OSCAR 6 orbit.

Daily AMSAT bulletins will be sent on 14.280 MHz at 1800 GMT and 3.850 MHz at 0100 GMT by W3ZM and others.

OSCAR 7 was built on evenings and weekends by volunteers, many of whom are involved professionally in the aerospace industry. Cost was $60,000. A comparable satellite commercially built would cost two million dollars. The funds came from individual and organizational contributions. A principal sponsor of the project was the ARRL.

Nearly 2,500 amateur stations in 87 countries have used OSCAR 6. OSCAR 7 means there will be 5 satellite passes in an evening, thus commencing a new era in amateur space communications.

WORLDRADIO delayed this issue to have the launch story and orbit timetables. Hopefully, such will be in the next issue. Take part in this milestone in amateur radio achievement.

Navassa DX

by Joe Duffin, W2ORA

Everything is A-OK for the DX-pedition to Navassa Island the last week in November. The advance party, K2KA, W2PAU, K2FT and W2ORA will leave Philadelphia 21 November for Kingston, Jamaica and WB2BXV and W2FYS will fly down on the 23rd. They will be taking enough equipment (almost 1500 pounds) to set up three complete stations on Navassa. The group will leave Kingston late on the 23rd with the hope of being on Navassa on Sunday, the 24th in time to start operating during the tail end of the CW contest.

Operating: Sun., 24 Nov. through Fri. 29 Nov. - 10 through 80 meters
Transmit: Low end of Extra, Advanced and General
Receive: Up 5 to 10 kHz or as announced

(Turn to page 3, please)

FCC Proposals

(Continued from page 1)

structure we're talking about here, not the HF but the VHF and above.

Number four, the establishment of an Expert Class with all privileges above 29 Megahertz with requirements in the examination incorporating the Advanced level principles with a code requirement of five words per minute.

If you can, visualize this as a vertical licensing structure which is comparable in this area of the spectrum to what we know have in the HF portion of the spectrum.

There are some other features in our proposal which I think are also significant, especially in relation to rectifying some built-in inequities which are presently in the rules.

First let me say, we shall do everything which is reasonable and sensible to retain existing privileges in both frequency domains. A Novice, for example, may hold a license up in the VHF area. Or a Technician can also hold a license in the Novice area. And you can't do that at the present time.

Another inequity is the requirement to renew the operator license every five years. We found that upon attaining the Extra Class license, one seldom drops out of Amateur Radio, even though family and business responsibilities get pretty heavy and preclude very intensive operation on the air. Therefore, in this same proposal, we are going to propose to issue the Extra Class amateur license for life. (applause)

There will be a requirement to renew the station license only at the usual time period. The reason is the Communications Act of 1934. It doesn't permit the Commission to issue a station license for longer than 5 years.

With this arrangement, if one is too busy to engage in Amateur Radio over a long period of time, he will not have to re-take an examination when he decides he wants to get back into radio again. We think this should provide quite an incentive for people to obtain the Extra Class License, whether you really enjoy CW or like CW or not. Just think what you would get out of it, you would never have to renew your operators license again, only your station license.

Now, maybe in time, that same procedure can be extended to other classes of license. But, I think with this as a beginning step, you will see a much more relaxed attitude by the Commission to take similar measures in the future.

There is another feature in our proposal which I want to bring to your attention. It relates to licenses obtained through unsupervised mail examinations. We're going to propose that two licensed radio amateurs be present for the administration of any mail examination.

A license issued as a result of a physical disability will have the letter "D" on the license and will be renewable upon substantiation of a continuance of the physical disability.

A license issued as a result of difficulty in traveling to an examination point (you're outside the 175 mile radius) would have the sole function of serving as a temporary authorization until the individual could qualify before the Commission and such a license would not be renewable. (applause)

We believe it's reasonable to expect an individual to travel sometime within a five year period, to an examination point to take an examination.

Qualifications of volunteer examiners would also be more strict, but at the same time more reasonable. For example, General Class licensees could not give examinations for higher grade license, but he could give them for those below that level.

If the Civil Service Commission finds that they can give amateur examinations, I fully expect we would abolish the Conditional license in the future. The exceptions, of course, would be those with a physical disability.

The emotional aspects of restructuring the Amateur Service, as well as those related to call-signs, have convinced us that probably it's the better part of valor to separate these two proceedings. So, the first one that you shall see will relate to restructuring of the Amateur Service and shortly thereafter, one relating to call signs.

Some of us initially favored rather a broad inquiry into how to deal with the call sign question. We left it mainly up to amateurs to tell us what kind of system we should propose, in a notice of proposed fulings. But, there are others who didn't want to do that. What will come out on this particular subject will be a definite proposal, not a notice of inquiry as it's called.

I suppose you've heard that in addition to the prefixes which we are now using in the Amateur Service, the "W" and "K" series, we have obtained the prefixes AA through AL. These cannot be single letter prefixes, they are double letter prefixes as assigned by the ITU to the United States. We have obtained them for the Amateur Service.

In addition to this call sign proposal, we are going to propose use of the prefix "N" and "NA" to "NZ". So, with these taken into account and all of the possible combinations, that should be somewhat of a stimulus for you to begin to try to figure out in your own mind just what the call sign proposal will be. It will be a definite proposal, and you should all comment upon it, because that's the only way we have of knowing what you think.

In 1976 we shall have some kind of voluntary call sign system for you to use for our bicentennial celebration of our country. Hopefully, it will be something similar to what has been used in other countries such as Australia, New Zealand and many of the European countries in the past.

It will have to be voluntary, of course, on your part, use it or not as you desire. It will have to be something that involves no paperwork whatever, on our part. Because if it did, by gosh, you'd never get your license.

There are many other subjects I would discuss with you today, but time dictates that you not sit and listen any longer. You know we have six outstanding rule-makings at the present time that have been put out for your comments. The RACES proposals already have obtained a great number of comments. Primarily they come from the Civil Defense Organizations, the local, county and state organizations that like to use the system.

There haven't been very many responses from amateurs. Another one related also to the special calls to Extra Class, take the call of your choice if it's available. Special event calls to become a part of the regular licensing structure on a limited time basis. Crossbanding, and linking and automatically controlling repeater stations. We even have one on the Amateur Satellite Service rules, but we haven't yet forwarded it up to the Commission for their discussion.

All of you are, and should be, vitally interested in your avocation, Amateur Radio. I know it's difficult at times to know what

to send in to the commission in response to any proposal that comes out, or even find the time to let your representatives know how you feel. But remember, they too are also involved in other things than Amateur Radio, many other aspects of life, because they're human beings just like you. Each one of us should do our best within the requirements of the Administrative Procedure Act, which is the way we have to operate. It's under the provisions of that act that we must ask for your comments on anything that we propose and take your desires into account.

So let your imagination soar someday and try to envision Amateur Radio in the year 2015, which by the way is the year when the next predicted sun spot maximum will exceed 100.

What will its character be then? Will it be a select group of people with allocated frequencies throughout the spectrum, or will its pleasures and its responsibilities and its benefits to mankind be extended to a wider group of our citizens.

The latter surely can come to pass in an orderly manner, without the loss of any of the glamor, the thrill, the allure or the opportunity which is now present in Amateur Radio.

But, the guidance to do this must be clear. If that is the way you see the picture, be sure to tell us, otherwise a different direction and phase in Amateur Radio may come about in the future.

Do your best and I hope you choose the right course. Thank you very much for inviting me.

Front row(kneeling, l. to r.) Carl Cook, WA6JUD; WN6GHV; no call; Ted Durst, W6PFW; Paul Hoesington, WA6AWC; Richard Olsen, WB6YEO, and WA6BZG. Standing (l. to r.) Art Mayoff, VE2AQV/W6; Jay Caldis, WB6PUA; WA6AGP; Bergie Bergmann, WB6RZX; WN6BWG, no call; no call; Sidney Haynes, WB6RTR; Victor Carpenter, WA6OMW; WN6DHN, and no call. Not pictured - Arthur Lange, WN6EKT; Gainsley Hamilton, WB6TZQ; Joseph Haynes, WA6RGG, and Tony Contreas, WA6FKA.

Left to right: Paul Hoesington, WA6AWC; Ted Durst, W6PFW; Ray, WN6DHN; Bergie Bergman, WB6RZX

Sue Mayoff, WA6AGP

W1AW

With the return to Standard Time on 27 October, W1AW has inaugurated a new operating schedule featuring increased code practice and bulletins. Afternoon code transmissions at 2100 GMT Monday through Friday will include practice at 10, 13 and 15 wpm. This will be followed at 2130 GMT by an official bulletin sent at 18 wpm. A teletype bulletin will take place daily at 2230 GMT. Amateurs are reminded that the special October Sunday evening local time Qualifying Run will now be held at 0230 GMT 28 October. The scheduled 9 November Frequency Measuring Tests will take place at 0230 GMT. Evening code practice occurs at the same local clock time. The complete new W1AW schedule will appear in the December issue of QST.

identification
The Worldradio NEWS
is a global communications service

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Public service

The Walnut Festival Parade

The Mount Diablo Amateur Radio Club participapte in the area's biggest annual parade. The club provided 18 amateurs and 11 rigs and a mobile communications van for parade coordination.

With over 200 entries in the parade that lasted over three house, the operators and equipment came through with flying colors. It was a good test of our repeater and hand held units. The purpose of the communications was to help in float identification and to forward to the four announcing grandstands any changes in position or float titles, etc. We were quite fortunate to have a "float" of our own, with Sue Mayoff, WA6AGP, "The Housewife Ham" driving her decorated car in the parade.

de Art Mayoff, VE2AQV

NAVASSA (from page 1)
Operate 160 meter CW on Wed., Thurs., Fri., at 0300 GMT (actually 10 p.m. EST on Tues., Wed., Thurs.) Operation will continue as long as there is worthwhile activity. Transmit on 1801 (CW receive up 3 to 5). QSL Manager, K2FT, 17 Coles Ave., Cherry Hill, NJ 08034. In view of the high costs involved, donations via QSL cards will be appreciated.

7-SEGMENT READOUT
12-PIN DIP

- Three digits with right-hand decimal
- Plugs into DIP sockets
- Similar to (LITRONIX) DL337
- Magnified digit approximately .1"
- Cathode for each digit
- Segments are parallel for multiple operation
- 5 - 10 MA per segment

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EACH $3.00 4 (12 Digits) $11.00

RCA NUMITRON

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SPECIAL: 5 FOR $20.00

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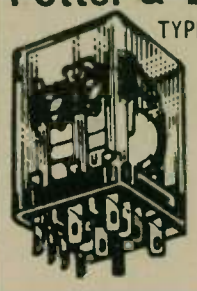

TYPE KHP RELAY 4 PDT 3A CONTACTS

24 VDC (650 coil)....$1.50

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Power Supply SPECIAL!

723 DIP variable regulator chip 1-40V, + or - output @ 150 MA 10A with external pass transistor--With diagrams for many applications.

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CT5005 CALCULATOR

This calculator chip has a full four-function memory, which is controlled by four keys, +M (adds entry into memory), -M (subtracts entry from memory), CM (clear memory, without clearing rest of registers), RM (read memory or use as entry).

- 12-Digit display and calculate
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- Leading zero suppression
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5001 CALCULATOR

40-Pin calculator chip will add, subtract, multiply, and divide. 12-Digit display and calculate. Chain calculations. True credit balance sign output. Automatic over-flow indication. Fixed decimal point at 1, 2, 3, or 4. Leading zero suppression. Complete data supplied with chip.

CHIP AND DATA.....ONLY $9.95

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5002 LOW POWER CHIP AND DATA..12.95

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CTL 9956 dual 2-input AND buffer
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Data supplied; all parts are dual-in-line.

MIX OR MATCH 5 FOR $1.00

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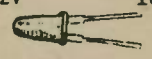
MV50 red emitting 10-4 ma @ 2V — $ .20 / 10 FOR 1.25



MV5024 red TO-18 high dome — $ .35 / 10 FOR 2.95

MV10B visible red 5-7 ma @ 2V — $ .30 / 10 FOR 2.50

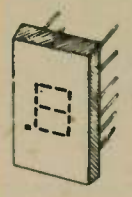
CMOS

CD4001	$ .75	74C20	.75
CD4002	.75	74C160	3.25

3-Amp Power Silicon Rectifiers Marked Epoxy Axial Package

PRV	PRICE	PRV	PRICE
100.....	$ .10	800.....	$ .30
200.....	.15	1000....	.40
400.....	.18	1200....	.50
600.....	.23	1500....	.65

MAN 1



7-Segment, 0-9 plus letters. Snaps in 14-pin DIP socket or Molex. Operates with IC voltage requirements. Long operating life.

ONLY $3.25

7400	$ .25	74L51	$ .30
74H00	.35	74H51	.35
7401	.20	7453	.20
74H01	.35	7454	.25
7402	.35	74L54	.35
7403	.30	74L55	.35
7404	.28	7460	.20
74H04	.35	74L71	.30
7405	.28	7472	.40
7406	.70	74L72	.50
7408	.35	7473	.60
74H08	.35	74L73	.75
7410	.25	7474	.65
74H11	.35	74H74	.80
7413	1.25	7475	1.40
7417	.40	7476	.60
7420	.25	74L78	.80
74L20	.35	7480	.65
74H20	.35	7483	1.00
74H22	.35	7489	4.00
7430	.25	7490	1.20
74H30	.35	7492	.90
74L30	.40	7493	1.15
7440	.25	7495	1.15
74H40	.35	74L95	2.00
7441	1.25	74107	.70
7442	1.20	74121	1.25
7446	1.75	74154	2.30
7447	1.50	74193	1.50
7448	1.50	74195	1.00
7450	.25		
74H50	.35		
7451	.25		

7400 Series DIP

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MR810 Rect.	50V	1A	.10

Special 811: Hex Inverter

TTL DIP Hex Inverter; pin interchangeable with SN 7404. Parts are brand new and are branded Signetics and marked "811."

Data Sheet Supplied

EACH.....$ .30
10 FOR..... 2.50
100 FOR.... 23.00
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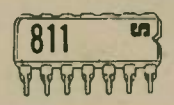


MAN 3

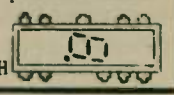
0-9 plus letters. Right-hand decimal point. Flat-pack type case. Long operating life. IC voltage requirements. Ideal for pocket calculators!

EACH $1.25
10 OR MORE 1.00

MAN4

Seven-segment, 0-9 plus letters. Right-hand decimal point. Snaps in 14-pin DIP socket or Molex. IC voltage requirements. Ideal for desk or pocket calculators!

EACH.....$2.75
TEN OR MORE 2.50 EACH

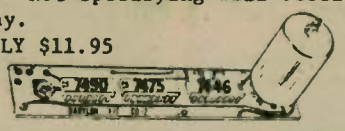


CD-2 Counter Kit

This kit provides a highly sophisticated display section module for clocks, counters, or other numerical display needs. The unit is .8" wide and 4 3/8" long. A single 5-volt power source powers both the ICs and the display tube. It can attain typical count rates of up to 30 MHz and also has a lamp test, causing all 7 segments to light. Kit includes a 2-sided (with plated thru holes) fiberglass printed circuit board, a 7490, a 7475, a 7447, a DR 2010 RCA Numitron display tube, complete instructions, and enough Molex pins for the ICs . . NOTE: boards can be supplied in a single panel of up to 10 digits (with all interconnects); therefore, when ordering, please specify whether you want them in single panels or in one multiple digit board. Not specifying will result in shipping delay.

COMPLETE KIT, ONLY $11.95

FULLY-ASSEMBLED UNIT $15.00



Boards supplied separately @ $2.50 per digit.

LINEARS

NE540	70-Watt power driver amp.....	$2.00
NE555	Precision timer.....	1.50
NE560	Phase lock loop DIP.....	3.25
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NE565	Phase lock loop TO-5.....	3.25
NE566	Function generator TO-5.....	4.00
NE567	Tone decoder MINI DIP.....	4.00
NE567	Tone decoder TO-5.....	3.00
NE5558	Dual 741 op amp MINI DIP.....	1.00
709	Popular Op Amp DIP.....	.45
710	Voltage comparator DIP.....	.75
711	Dual comparator DIP.....	.40
723	Precision voltage regulator DIP.	1.00
739	Low noise op amp DIP unmarked...	1.00
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LM308	Op Amp TO-5.....	2.00
LM309H	5V 200 MA power supply TO-5.....	1.00
LM309K	5V 1A power supply module TO-3..	2.00
LM311	Comparator TO-5.....	1.75
LM370	AGC amplifier.....	2.00
LM380	2-Watt Audio Amp.....	1.75
LM1595	4-Quadrant multiplier.....	2.00
MC1536T	Op Amp.....	2.00

Telephone Pioneers

by Norm Brooks, K6FO

John Burch, WB6GHA, and Bob Marchand, K6HQL (seated) lining up the station at Guide Dogs for the Blind

Bob Marchard, K6HQL, John Burch, WB6GHA, Jerry Bongard, WA6TQW, Pres. George Ladd Chapter Pioneer Radio Club, Jerry Mitchell, W6EQR, and his guide dog, Adam.

"CQ TP CQ TP CQ TP" (on CW)
"CQ Telephone Pioneers" (on phone).

This is what you'll be hearing on all the bands on the weekend of 7 and 8 December 1974.

Who are the Telephone Pioneers?

The year was 1911. Alexander Graham Bell's toy had grown up and a generation of telephone people had grown up with it. They were trailblazers - railroad men, merchants, postmasters, accountants - who left their accustomed trades to pioneer a new science and technology, and build a tradition.

In November of that year, a large group of these employees met in Boston and formed the Telephone Pioneers of America "for the purpose of perpetuating friendships and fostering and encouraging other worthy and appropriate purposes." There are now 84 chapters in the United States and Canada. Membership is restricted to those employees who have served in the telephone industry for 21 years - soon to be reduced to 18 years.

What Do They Do?

A baseball whizzes toward a youngster at bat who "connects" and sends it to left field. The child is blind, but can follow the ball by the beeping sound it makes. The beep ball was developed by the Telephone Pioneers.

Pioneers transform a littered lot into a community park, sow pine seeds on a burned-out hillside and staff a recycling plant.

The upkeep of a school for mentally retarded children is a project for several Pioneers. Members trim trees, paint, do carpentry work and perform odd jobs around the school.

An elderly or disadvantaged person gets help with his income tax return from one of many Pioneer volunteers.

Telephone Pioneers record and repair "talking books" for the blind ... learn to help drug users ... make lap rugs and mats for convalescent patients ... sponsor and set up immunization clinics ... register voters ... tutor children.

These are just a sample of what Telephone Pioneers are doing. It all adds up to the largest organization of its kind in the world - The Telephone Pioneers of America - dedicated to fellowship, loyalty and service

The Pioneer QSO Party

Ten years ago, radio amateurs who were Pioneers at the Stanley Holmes Chapter in New Jersey came up with the idea of an annual QSO Party. How better to meet the Pioneer objective of fellowship than by on the air contacts? Frank Wojcik, W2SNJ, organized the first such get-together, and a new annual amateur affair was launched. Each year the number of Pioneer amateur participants has increased to where there were 234 logs sent in the last year. This year's turn-out is expected to be even greater. It is headed up by Phil Lupi, WA2NHH.

So much for fellowship. How have these Pioneer amateurs fulfilled the Service objective of the Telephone Pioneers? They participate, through their local Pioneer councils and Chapters in the community service projects mentioned earlier, where their electronics expertise is of value.

One such project is the making of "talking dolls" or "talking animals". There are many emotionally disturbed children in hospitals around the country who have withdrawn "into a shell". They will talk with no one, and no one can talk to them. It was found that by installing an inexpensive intercom in a large stuffed doll or animal, a psychiatric worker can talk to the child via the intercom. The child will respond to the doll or animal, and communication is established where none existed before. Needless to say, the talking Smokey Bear or Snoopy soon has the child on the road to emotional recovery.

Beep Baseball

The Beep baseball game gives the radio amateur Pioneer a unique opportunity to show his electronic and construction skills. They make the special softball, which includes a Mallory Sonalert sounder, along with rechargeable Nicad batteries - all hidden within the ball. The bases are traffic cones with battery operated Sonalerts installed. Details on this ingenious game for the blind can be obtained by writing Pioneer Beep Ball League Office, 85 2nd Street, San Francisco, CA 94105.

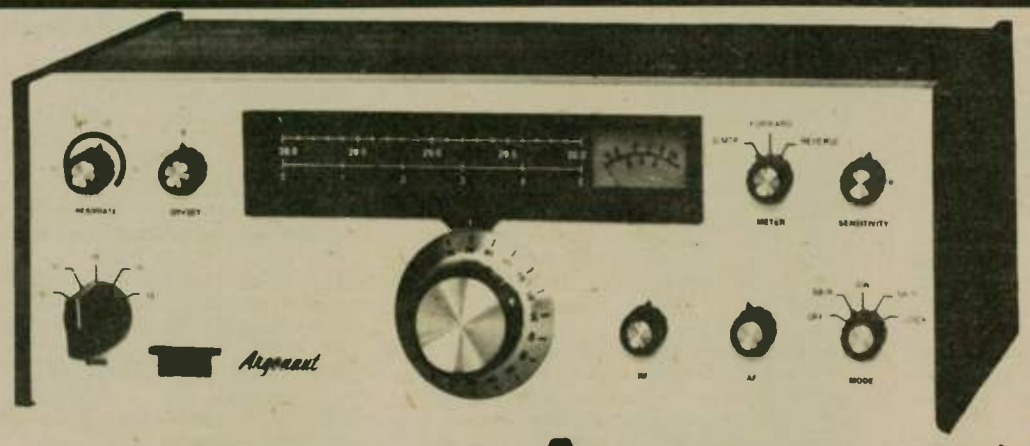
Pioneer Radio Clubs

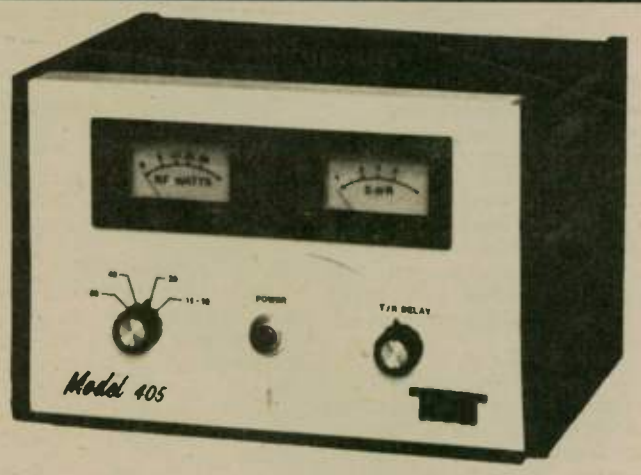
As you might expect, radio amateur members in the various chapters have established radio clubs, which have provided valuable emergency communications. The Houston Telephone Pioneer Amateur Radio Club, using its club station WA5DOS received the ARRL Public Service Award for emergency traffic handled during Hurricane Celia. As a club station, WA5DOS has been the high scorer in the Pioneer QSO party, for the past six years.

Miles Saibic, WA9JIH, operating the Hawthorne Chapter Science Club station WA9-EPJ, answered a distress call for help from K9FXN mobile on the Eisenhower Expressway in Chicago. A speedy telephone call for the police and an ambulance is credited with probably saving the life of a woman motorist who was trapped in her overturned vehicle.

(please turn to page 39)

SERVING THE WORLD'S RADIO AMATEURS





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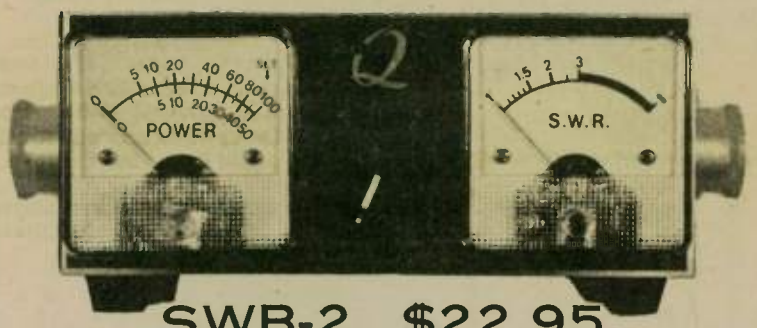

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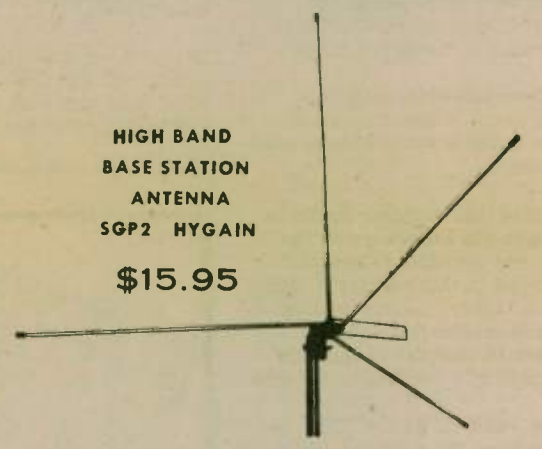

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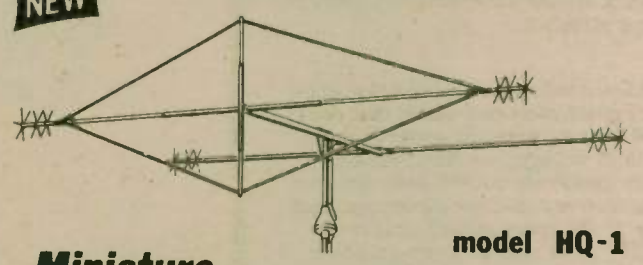

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EDITORIAL

Armond Noble, WB6AUH
Editor, Worldradio

Where are we going?

"I'm very worried, that in half an hour 150 people could do away with Amateur Radio as we know it." Speaking was someone who is very concerned, and takes Amateur Radio very seriously, Gary Stilwell, W6NJU.

He was referring to the upcoming World Administrative Radio Conference. In this arena each nation attending has an equal vote. That is, the smallest country has one vote. The United States has one vote. It matters not one bit that the state of Vermont has as many amateurs as India or Hungary; that Wyoming has as many amateurs as Bulgaria; that Washington State has about the same amateur population as France or Italy. When it comes to the International Conferences all nations get one vote.

Many of the emerging nations want more space in the radio spectrum. Many radio services in the industrialized countries want more spectrum space. There is no doubt we have a battle on our hands.

Recently, members of the ARRL staff traveled overseas to confer with amateur organizations about the upcoming conference. They reported that some of the countries were unaware of the importance of the upcoming conference.

One FCC official, who has attended the conferences in years past, told us that in many countries there is very little contact between the amateur society and the telecommunications authority of the government.

Those attending the conference will cast their votes on the basis of how important they feel amateur radio is versus those who want our frequencies.

The real pity of it is that Amateur Radio is one of the most dynamic endeavors on the face of this earth and its value is practically unknown. Even in this country a highly placed official in a federal agency dealing with emergency communication said the federal government is unaware of the role the amateur can play in providing assistance.

In many countries, as well as the U.S., the amateur has often been the only link when all utility circuits had been destroyed. And yet people are unaware of the value of Amateur Radio.

One of the most vital resources on this earth does its work almost anonymously. This is a ridiculous situation.

Here we have a volunteer service that provides emergency communication; that does more good for international goodwill than the billions of dollars, marks, Franks, piasters or whatever, poured into the unlistened to international broadcast stations; that is one of the greatest technical training grounds (at no cost to a government); and its value is unknown.

Whose fault is it? Largely the fault is that of the amateur himself.

Here are a couple of examples: For years now there has been talk of a booth displaying Amateur Radio at the State Fair in California. Even with all the retired people living in the Sacramento area there has never been enough volunteer interest to make it a reality. This is a well-attended event with many government officials and visitors from foreign countries seeing the exhibits. While this writer was a guest speaker at a club meeting in the Bay Area, a club member asked why the newspapers never tell about the good works of the amateurs. The club member was asked in return if he had ever taken an item to the newspaper. The answer was, of course, no. Over a thousand groups went on Field Day last year. How many arranged for newspaper coverage, or took a photograph and wrote a story to give to the local paper?

As in anything, those who make the effort - get the coverage. Can you name anything that has more human interest, is involved in more public service, day in and day out, than Amateur Radio?

Have no doubts about it. Amateur Radio is under attack. And what are we doing about it?

Part of the problem is that we are few in number. And why is that? Here we have something that is fascinating and exciting and but 260,000 people in the U.S. have licenses. About 26,000 people a year come into amateur Radio. Ridiculous.

Some concerned FCC officials will propose a code-free, simple rule and regulation test that will give VHF privileges. Will such dilute the quality of Amateur Radio? The answer is yes. However, such a move may be the only way that the numbers will swell in any degree to give us the necessary numerical "clout" to back up our requests.

Indeed, not a pretty situation. But whose fault is it?

If every presently licensed amateur had encouraged but one other person to get an amateur license, we would have double the number that we now have. There are over 3,700 organizations holding club licenses. If each club was running licensing courses and was responsible for bringing in ten new amateurs a year, we would more than double the number of new amateurs a year. What's wrong?

Is this the era of apathy? Would people rather stare at their television screen hour after hour watching fictional characters than get up and do something themselves?

Do we just take from Amateu1 Radio, or are we obligated to put something back into it?

Amateur Radio seems to be at the present moment just wandering around aimlessly. We are paying no attention to our own survival.

It is almost beyond belief that the intelligent people that inhabit Amateur Radio could be so short-sighted. Are you aware that, for example, of the people who obtain Novice * class licenses only 25 percent ever obtain a higher grade license? We have many hamfests and conventions, is there anything ever on the programs aimed directly at the newcomer? Do the radio clubs make any effort to contact and attract the newcomer to their club?

(WORLDRADIO will shortly announce a plan in which clubs listed with us will be notified every month of the names and addresses of newly licensed amateurs in their area. It is hoped the clubs will send an invitiation card or letter to the newcomers.)

We hear manufacturers and radio stores crying the blues that the number of amateurs is declining and thus their business is depressed. Many have gone out of business. Well, what have they done to reverse the trend.

Remember, today is the future that you didn't plan for five years ago.

There are about 500 stores in the U.S. who sell amateur radio equipment. They should be at the forefront of conducting classes. The year could be divided into four quarters. It should be possible to turn out a Novice in thirteen meetings of once a week. I've talked to store managers about this, their answer is "I don't have the time". They don't have the time to save their business.

It was management consultant Robert Townsend who said, What people think of as leisure is really diversion, it keeps you from ever eally accomplishing anything.

In many ways these are difficult times. Only the productive will survive. It's strange that while so many manufacturers are wringing their hands, we know one that is selling radios like hot cakes and recently had to move to a larger factory. He may be doing so well because he's "got his act together" and the high respect in which he is held.

With the international conference coming up in a few years, we've got to quickly make up for the years of lackluster performance.

CONCRETE PROPOSALS:

Every club should assign a member to be its public relations coordinator. He should make contact with newspapers, radio and television stations. Field Day, Simulated Emergency Tests, visits from foreign amateurs, public service activities, etc., should all be matter for the local news media.

The word about classes for preparing for the FCC tests should be sent to all the area newspapers and radio stations for relay to the public.

Conducting classes should be a high priority item for every club. Give up going bowling or spending so much time on the air yourself to insure the future of Amateur Radio.

Give more of yourself to Amateur Radio. Let's make it, and the local club, as important to amateurs as others find the activities of the Elk, Moose, Jaycees, 20-30, Sertoma, Shrine, etc. Let us be as active in Amateur Radio as they are in their activities.

You hold the future of something wonderful in your hands. Are you up to the challenge?

●

Incredible, but true

For several years now the WCARS net has been plagued by the same jammers. ECARS and MIDCARS have the same problem.

Complaints and tape recordings have been heaped upon FCC officials. Concerned amateurs have taken to writing their congressmen about the matter. Meanwhile, for example - on the west coast, the same two individuals lead the activities against a public service net. And it continues year after year.

The answer to this incredible situation is that the FCC does not have the manpower of the funds to do an adequate policing job. Such may well be true. And here's why they don't have the money.

According to "The Wall Street Journal" of Friday, October 25, 1974, one of the FCC Commissioners had spent $4,600 of government money to install, in her office, a private bathroom with a large gold-framed mirror. This may be waste in more ways than one. The Journal reports Mrs. Reid "is gone from the FCC more than any other commissioner."

What a slap in the face of the taxpayer. We're sure that a couple of average taxpayers are thrilled to know that their work for three months or so went to make life more comfortable for someone who earns $38,000 a year. (This is about $78 a week less than a U.S. Congressman makes.)

If you're interested in what the Journal felt we got for our $38,000 plus $4,500 travel allowance (and don't forget the $4,600 bathroom) you will be most interested to read the October 25 issue of that newspaper.

spectrum

Kidnaped diplomat returning to duty and to the airwaves

by Eunice G. Bernon, K8ONA

Readers really care.

Ever since April, when U.S. Information Service Officer Alfred A. Laun III, LU5-HFI, was kidnaped, shot and beaten, then released by Marxist guerrillas in Argentina, readers have asked about him.

Now Laun is back in Washington.

In a letter just received, the internationally known ham operator writes: "just about ready to go back to work. Two or more years here in Washington. Plan to be on the air shortly, with a big antenna farm in Maryland and, hopefully, with a K3 two-letter callsign. Will have two big towers and plenty of antennas; this time, including VHF."

Laun's dramatic ham radio experiences during foreign service assignments are a far cry from his introduction to the hobby at age 9. Then, he only listened to operators on his parents' old set.

Keen interest led Laun to correspond with amateurs, who informed him that he was an SWL, a shortwave listener. Determined to join their fraternity, Laun mastered the code by listening to shore-to-ship traffic lists on east coast radio stations.

Laun likes to recall the time when, at 14, he met a "real life ham", who told him how to get an FCC license. The year was 1952. His call letters then (and now) in Wisconsin were W9SZR.

Laun pursued the hobby at the University of Wisconsin and founded its radio club. He was graduated in 1962 with degrees in political science and journalism.

The ensuing years in U.S. government service have provided Laun with memorable ham radio activities.

He operated station HI8XAL from Santo Domingo, Dominican Republic, during the revolution of 1965, and provided the only direct communications link between the U. S. Embassy and the U.S. naval fleet offshore, using a mobile unit in his car, parked on the Embassy grounds.

Later, when all regular communications circuits were down, Laun relayed press releases to the Voice of America, on 20 meters, using Code mode.

Laun's next assignment to Thailand in 1968 was frustrating for a while, for U.S. hams were banned from contacting Thai operators. After a year's efforts he finally got the ban removed and received call letters HS5ABD.

Then to Vietnam in 1971, and months of inspiration and perspiration before Laun was permitted to put amateur radio station XV5AC on the air.

Laun has returned to the nation's capital. Truly a goodwill ambassador, he holds life membership in many overseas radio clubs. Soon he will resume activities in the American Radio Relay League, Department of State Amateur Radio Club, and many others.

About Argentina? Laun concluded in his letter this way: "I had a good station location and equipment setup there. Placed top 10 in the world in many contests. Wish I could have stayed longer."

●

Fred Laun, LU5HFI

Prior to being kidnapped, Fred Laun was involved in an incident as reported below by Mark Witmer, WA6FXM:

During a medical emergency in Argentina, Fred Laun, LU5HFI, coordinated a search for a rare drug to save the life of a little girl suffering from a blood clot in the brain due to an accident.

Fred Laun, LU5HFI

This drug was reportedly available only in Philadelphia, PA. Efforts to find this drug by Phil Goetz, W6DQX, and other west coast amateurs were to no avail. Due to the efforts of Joe McGovern, W3HAO, the head of the medical team who developed the drug at Temple University was contacted. He advised that the drug was still in the experimental stage and that it might prove dangerous to the patient. This information was relayed to LU5HFI, who in turn relayed in Spanish to Roberto Cabanillas, LU2HBX, who was in contact with the attending physician. At that time the physician in Argentina decided against using the drug due to the possible complications involved.

Special thanks and recognition should go to LU5HFI, who served as net control and interpreter, LU2HBX who maintanied contact with the hospital and attending physician, W3HAO who contacted the doctor who developed the drug, and gave information on its use, W6DQX who coordinated the search on the West Coast, and Warren Davis, K6NA, Mark Witmer, WA6FXM, John Bacich, W6RTN, Lawrence Garland, W4LIN Lee Gamble, WB4YWX and all other amateurs who assisted.

●

Helping joggers

by Harold Polk, WA3PRW

On 2 June 1974 at 9:12 PDT, two men, Phil Castleberg and Heinz Wiegand left Seattle, Washington on project "Hearty Living" to jog across the United States. The purpose of the run was to promote the importance of physical exercise for the American Heart Association.

On that day an Amateur Radio net was also established to track the joggers and report on their location and physical condition to Frederick, Maryland Chapter of the American Heart Association and to relay this information to the news media. The net was operated by Steve Bauman, W3FOA, and Harold Polk, WA3PRW, of Frederick.

The test of the endurance for both Phil and Heinz and the net continued for 12 weeks until the joggers reached the east coast at Rehobeth Beach, Delaware on 29 August at 11:00 EDT. The joggers covered 3000 miles and went through 135 cities and towns along the way. Communications were initially established between WA3PRW and Ron Jones, WA7TJH, and Don, WA7YJX, of Seattle, via Perry Sikes, W7CDC. Ron and Don relayed the information about the joggers until they reached EXPO 74 in Spokane, Washington where the special station KD7SPO assisted while Phil and Heinz were in that area.

The next leg of the jorney was covered by Larry Neima, WBØHGM, from Fargo, N.D. until the joggers arrived in the state of Minnesota. Dick Conrad, K9DXO, assisted until the joggers arrived in Ohio where Phil Freed, K3LVO, of State College, Pa. took over. Phil completed his obligation when the joggers arrived in Maryland where Ambrose McKenzie, W3-BHE, and Gerry Harrison, W3OYY, assisted while they were in Frederick.

Phil and Heinz continued to the Washington, D.C. Mall where they were awarded a Presidential Citation from President Ford. The joggers continued on to Rehobeth Beach via Annapolis, Md. Their progress was monitored by Karl Medrow, W3FA, and Bob Binau, WA3IIV, until they arrived in Rehobeth Beach, Delaware. They were met on the boardwalk by Robinson Binau, WA3IIV, and Ed Hill, W3FEB.

Many other radio amateurs assisted by delivering messages and making phone calls, Many messages were sent via the National Traffic System. Some of the amateurs who assisted in this fashion were Page Pyne, WA3EOP; Jim Nelson, WA3-REP; Dabe Blanchard, W3FCS; Jim Hicks, WA3DUM; Bruce Draper, WA3LMY, and Roger Cole, W3DKX.

It was a very pleasurable experience for the group of amateurs and a service supplied to the public by this group of devoted people.

●

Write

You have something to say! So, Share your ideas, experiences, knowledge with others in the roundtable that is WORLDRADIO. What was the most interesting thing that ever happened to you in Amateur Radio?

sstv (from page 28)

Here in Rochester, NY a school for the deaf is using a form of scan conversion in a teaching program. Scope patterns of words spoken by a teacher are shown as "frozen frames" on a monitor screen. The student attempts to match the speech pattern on the scope. I hope that knowledge of SSTV applications like these will stimulate some thinking along other lines. Any ideas?

I guess that gets us to the just plain users of SSTV. You can say this for them, they sure demonstrate the level of dependability that you can expect from the system on a day-to-day basis. With pictures, graphics, live stuff, keyboards, or what have you, they communicate, and they bring people closer together.

Well, that's it for my first words in WRN -- and I'm reminded of my efforts to be among the first to work 200 countries on SSB. Every one of those QSL cards had to say "Two way SSB" to be valid. Well, I feel the same way in regard to this column, I want it to be a two-way SSTV/ATV column. So another plea, please let us hear from you soon. *

P.S. Good news for ROBOT owners, a new directory of ROBOT equipped amateurs will be in the mail for you in November. No need to write requesting it, you'll get it.

*Address correspondence to 2112 Turk Hill Road, Fairport, NY 14450.

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Your linear

by Don Wiseman, W5KSV

Periodically the subject of linear amplifier power requirements and capabilities come up -- many times after a bad experience with blown tubes, fuses or tempers of the other guys forced to listen to buckshot 50 kHz across the band.

The topic of power spectra and dynamics of the human voice has received lots of attention from many PhD level specialists at places like Bell Labs, ITT, RCA, etc. Even these fellows don't have all the answers. But, let me try a few words on the subject.

Your voice is an audio sound of a very complex nature. It contains many basic tones in the range from about 60 Hz to 5,000 Hz plus many intermodulation and harmonic products. In addition, the level of your voice can vary over a range of several orders of magnitude.

In single sideband transmission this signal is transposed to a radio frequency through a modulation process and amplified to the desired power level without distortion. The key phrase is WITHOUT DISTORTION. This means that every amplifier stage must provide an output signal exactly like the input, but at a higher power level. Quite a trick. How's it done" One way it's not done is by magic. You just can't get something for nothing.

Let's take a for-instance. Jim has an SB-200 amplifier. The operating plate voltage is 2000 volts. With the available antenna provisions Jim can load a single tone signal to an indicated plate current of 500 ma. (One kilowatt DC input).

At this point, the amplifier "saturates" or "limits". In other words, the tubes just can't draw any more current. With these conditions, Jim can never exceed 500 ma. dynamic peak plate current without distortion.

The plate current meter in the SB-200 responds at a very slow rate and never indicates a true plate current condition with voice signals. Considering this, and that Jim's dynamic voice range at normal speech levels may require a peak plate current of 10 decibels above the average (or meter) value, the maximum meter reading should be no more than 160 ma.

If you don't believe it, set up your SB-200 into a suitable dummy load with scope monitoring and look for signs of "flattopping" as you increase the mike gain while speaking into the mike. Look at your plate meter when your gain is set just below the "flattopping" point. What do you see?

If in this example, Jim arbitrarily decides to increase his mike gain to get a meter reading of 250 ma. peak, he is asking his amplifier to respond with a dynamic peak plate current of almost 800 ma. Remember, he has already loaded his amplifier to a maximum of 500 ma.

His amplifier can't respond, so it required heavily flat tops. This doesn't help Jim, and most assuredly makes him unpopular with the rest of us.

One more point, most SSB amplifiers are designed to allow for a high dynamic range of signal. This means that the calculations of peak power (as advertised) are much higher than the allowable average power capability. If Jim forces his amplifier to operate under the arbitrary conditions just described, he is asking the tubes and other circuit components to dissipate more than rated power.

THE EQUIPMENT WILL RESPOND WITH LOW OPERATING LIFE!!!

In the same line of thought, one should not tax the equipment in the CW mode over the rated dissipation factors.

Assume the SB-200 to have a dissipation capability of 200 watts with an efficiency of 60%, the maximum continuous input is 500 watts (not 1,000) and the plate current is 250 ma. You can figure some margin for CW duty cycle, but don't go far or you'll be buying new 572's.

Well, what does all this boil down to? Doesn't Heathkit (and all other manufacturers similarly) say the SB-200 is good for 1,200 PEP and 1,000 watts CW? Sure, they do, but read the fine print.

Linear Amplifier SSB Operation

Twelve-hundred watts PEP means just that and nothing more; average power is much less. Trying to talk it up to higher than proper metered plate current will result in "flattopping" and associated "buckshooting".

Also, power demands requiring the amplifier to dissipate more than rated dissipation will result in repair bills and grey hair.

Play it cool on both counts.

("News-Fuse" Hall of Science Radio Club)

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DX award

(continued from page 25)

Due to the difficulty, and significance of the award, a trophy will be awarded to the first qualified amateur on each continent.

Questions, suggestions and comments are invited. One thing we are still pondering is, should the "chase " be an annual affair, that is new totals counting each year?

So, get ready. Send in your claimed totals each month for the "box score".

●

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The challenge of DX

By JOSE TORO, KP4RK

(Note from the Editor: This article was originally published in 1963 in "The Puerto Rican DXer," bulletin of the old DX Club of Puerto Rico, and was later reprinted in several amateur publications around the world. Since its contents are as valid today as they were then, we take pleasure in reprinting it for the benefit of all our new DXers.)

There can be no doubt that DXing is one of the most fascinating and challenging aspects of amateur radio.

As such it requires the topmost operating procedures in the hobby — high power and super-duper beams remaining as secondary considerations. It is the power of observation and the understanding of human nature what constitute the main assets of a successful DXer.

After all, when you work a DX station you are not really establishing an electromagnetical contact between two sets of radio equipment, but rather establishing a reciprocal channel of communication between two human beings. It makes no difference whether the other party is 2,000 miles away, or 20, or even standing right in front of you. In all cases, these considerations remain the same.

We are writing this for the benefit of the increasing number of newcomers to Amateur Radio who are becoming genuinely interested in DX and who truly enjoy the enthusiasm and excitement shared by all DX-addicts.

This is not intended for the hysterical DXers, the cut-throat competitors, the frequency busters, and other similar specimens. Those believers in the "I-or-no-one" attitude should not be in our amateur bands at all. It is true that you will find many amateurs unintentionally falling in the above categories for reasons of ignorance and lack of interest in finding out about DX's facts of life. To those, our words may be of great help in their achieving a respectful place in the DX fraternity.

Know what DX is.

It is surprising to see the amount of confusion that exists about some elementary aspects of the DX endeavor. Take for example the matter of what constitutes a country for DX Century Club (DXCC) purposes. Although the criteria used by ARRL for determining country status may be questionable in some instances, the fact still remains that DXCC is the League's own activity, and as such, they reserve the final word on its interpretation. You would be surprised, for instance, at the number of amateurs with a genuine interest in DX who do not know that Alaska and Hawaii count as separate countries for DXCC, as well as states of the Union for WAS.

In order to avoid such elementary misunderstandings, any prospective DXer should have on hand a basic tool of the art: the Official ARRL Countries List, identified as Operating Aid No. 7. This may be obtained free of charge by sending a large self-addressed stamped envelope to ARRL Headquarters.

Know where DX is.

A good DXer is humorouslv described as a "short-wave listener with a license" which in actual practice has a great dose of truth. Top DXers everywhere are most of the time scanning the bands, and their listening-to-transmitting ratio increases in direct proportion to their DXCC standing. This in no way means that a DXer should not engage in rag-chewing or traffic-handling when he feels like it, but his chance of missing a new one increases accordingly. You should also keep abreast of the latest happenings in the DX world by reading the DX sections in the magazines and subscribing to any of the fine DX bulletins being currently published.

Know how DX operates.

This is where the human element gets in. Carefully observe the operating habits of the DX station and consider the pattern he has established before busting into the frequency.

Top DXpeditioners give specific instructions at frequent intervals during their operation. By all means, follow them. If they say they will QRT for a while and will not take any more calls, don't lose your time trying. If you hear a rare DX engaged in what seems to you an interminable chat with an old friend, or passing his log to his QSL Manager, or attempting to get some traffic through to his family back home, respect his privilege of doing so. Don't louse up the frequency trying to break in, or interfere in any way. You should also exercise extreme care when answering a DX station calling a specific schedule, or even a directional CQ which does not include your area. Never bust into the frequency to answer such calls, but rather wait a few seconds and then give him a quick call. Chances are that he will answer you if no other calls arouse his interest, but, if he keeps calling a particular station or area, do not insist on calling him and wait for a better opportunity. We know this is not easy sometimes, but it's better to play safe and keep a clean bill for the future.

This brings us to an operating fallacy that unfortunately is heard often on our DX bands: calling a station incessantly in the hope that he will answer just to get you off his hair. This may be true as far as getting an answer, but it is possible that your call will have a big, fat check-mark on his log — usually meaning NO QSL. The best method is to give short, quick calls. Sign your call no more than once or twice. We have heard DX stations giving out as many as three contacts during the time it takes some long-callers to finish signing their initial call!

Know what DX expects of you.

As said before, always follow the trend initiated by the DX station and the callers. When your turn finally comes, limit your transmission to the bare essential — which is just a signal report, given no more than twice. Remember that at the moment he is not interested in your name, your QTH, your weather, or that he was a new country for you. Don't forget that hundreds may be waiting for a chance, and such unnecessary chat will only belittle you in front of a big and critical audience. Some DX stations may even skip you and call QRZ ? when you are still in the process of spelling your name. We also have the case of stations with friends on the frequency who take advantage of their initial contact to monopolize the situation in their favor. If you feel obligated to a friend, risk mentioning his call, but leave it up to the DX station whether to call him or not. In other words, never try to become a Master of Ceremonies in a pile-up. Remember all want a fair chance.

This ties up with another frequent gripe: the fellow who makes unnecessary repeat QSOs, with a moronic desire of showing others that he can break through a pile-up whenever he pleases. This will not only show that he's got power and a big signal, but that the operator is a first-class egotist as well. Repeat only when in doubt about the first contact, or for contacts on other bands and modes.

Is DX really there?

Always be sure that you hear the DX station good enough to establish contact before attempting to call him. The fact that you hear others calling does not necessarily mean that you also have good conditions to that particular area. For the sake of proving this point, a station once gave a call to a rare, unexisting station. A few minutes later, others started calling this imaginary station. Eventually, the thing wound up into a veritable pile-up over a station that was never there to start with! There you have ridicule at its very best.

CQ DX?

Never call CQ in the hope that you will get answers from exotic far-away places, that is, unless you are at the beginner's stage, when most any answer will mean a new country for you. Don't fall into the category of some hams who disregard callers from places of no interest to them, and keep calling CQ on and on. If you are looking for a specific country or area, make your CQ directional — but never to the ridiculous extreme of calling CQ-BY or CQ-JY, which we've actually heard!

Beware also of long CQ calls, which in our opinion is one of the most disgusting things that can be heard on our bands. Short CQ calls, repeated often, are much more effective than long strings of senseless CQs.

The actual operation.

Most DXpeditions and rare DX stations do not operate transceive in order to avoid the inevitable pile-up on their own transmitting frequency. They operate in a split-frequency fashion and advise what frequency or segment they will be listening to. Some will simply say "listening to ten up, or ten down," etc. Always make sure before calling a DX station on his transmitting frequency. Unfortunately, some always do, which leads to a remedy that is worse than the ailment: the self-appointed "policeman" who jumps on the frequency to tell the caller (sometimes in not-too-sweet words), that the DX station is not listening on his own frequency. This, in turn, creates a load of additional unnecessary QRM.

All of the above further leads to an obvious inference: no serious DXer should operate with a transceiver alone, but should always have split-frequency capabilities, either separate receiver and transmitter, or a transceiver with a remote VFO. Some amateur rigs have the facility of receiving through either the receiver's or the transmitter's VFO. Thus, you can listen to the DX frequency and, at the flip of a switch, check the situation in your own transmitting frequency. This is a temptation for "tail-ending" (tuning the QSO in progress and calling at the moment of the switch-over to the DX station). Such technique is effective at times, however, many DX stations dislike tail-end calls.

Another operating system used by many DX stations in order to alleviate pile-ups is to listen by call areas (W1s, W2s, DX-only, etc). This system may be exasperating at times, especially if the turn for your call area is still too far ahead — and the DX signal is beginning to fade!

Then we have the relatively new modality known as the LIST. Here, a designated station becomes the personal representative, or emcee, of a particular DX station, and makes a list of the stations that the DX will call at a predetermined later time. This, of course, is apt to create big pile-ups of stations trying to get into "the list." There are several variations to this routine, all with their pros and cons, but the system usually works well. In fact, there are some DX stations who will only operate with the assistance of an emcee, especially when there is a language problem involved.

Please QSL.

The most important factor following a DX contact is obtaining a QSL card. Many DX stations and most DXpeditions have QSL Managers, to whom they sent their logs and authorize them to issue QSL cards in their behalf. Always check for this information before rushing to send your card to the DX's home QTH

It is imperative that you send a self-addressed envelope, with stamp in case of stateside QSL Managers, or with International Reply Coupons (IRCs) in case of QSL Managers in foreign countries. This, of course, is also true in the case of rare DX stations who choose to handle the QSL chores themselves. They are apt to receive thousands of cards from all over the world, and the least you can do is help with the postage expenses. The Radio Amateur's Call Book devotes a full page to all pertinent postal information to and from all countries of the world.

Otherwise, you should expect the bulk of your incoming QSL cards through the ARRL QSL Bureau. Addresses are in QST. Regularly send them a supply of self-addressed, stamped envelopes, and they will mail you the QSL's sent to you via the bureau.

As far as your own QSL card is concerned, it should contain the basic QSO information, call of station worked, date, time, report, band and mode. Always use Greenwich Mean Time (GMT) on your logs and cards. On the date, always write down, or use Roman numerals, to indicate the month, like 3 Sept 74 or 3/IX/74. If you put 3/9/74 it could mean either September 3 or March 8.

Conclusion.

A final word to ask forgiveness for taking up so much time and space on this subject. However, you will note that most of the points brought up apply, not only to DXing, but to all aspects of amateur radio operation. All of it boils down to one simple element, namely, courtesy.

As we said at the beginning, when we sit in front of our rigs and get on the air, we are not dealing with a bunch of tubes and transistors. We are dealing with human beings — with their virtues and defects.

(Onda Terrestre)

•

VOLUNTEERS NEEDED FOR MEDICAL RELIEF NET

Amateur Radio connections are needed in the Santa Barbara, Calif., area to provide communications for several local doctors and others who volunteer their services to assist the poor people of northern Mexico and Baja California. The group is known as the Taco Net, and meets nightly at 9 p.m. Pacific Time around 3.855 MHz LSB. Those who would like to assist in this effort are invited to check in. Look for W6HCD, W6YSP, K6DBJ, XE2BY and others.

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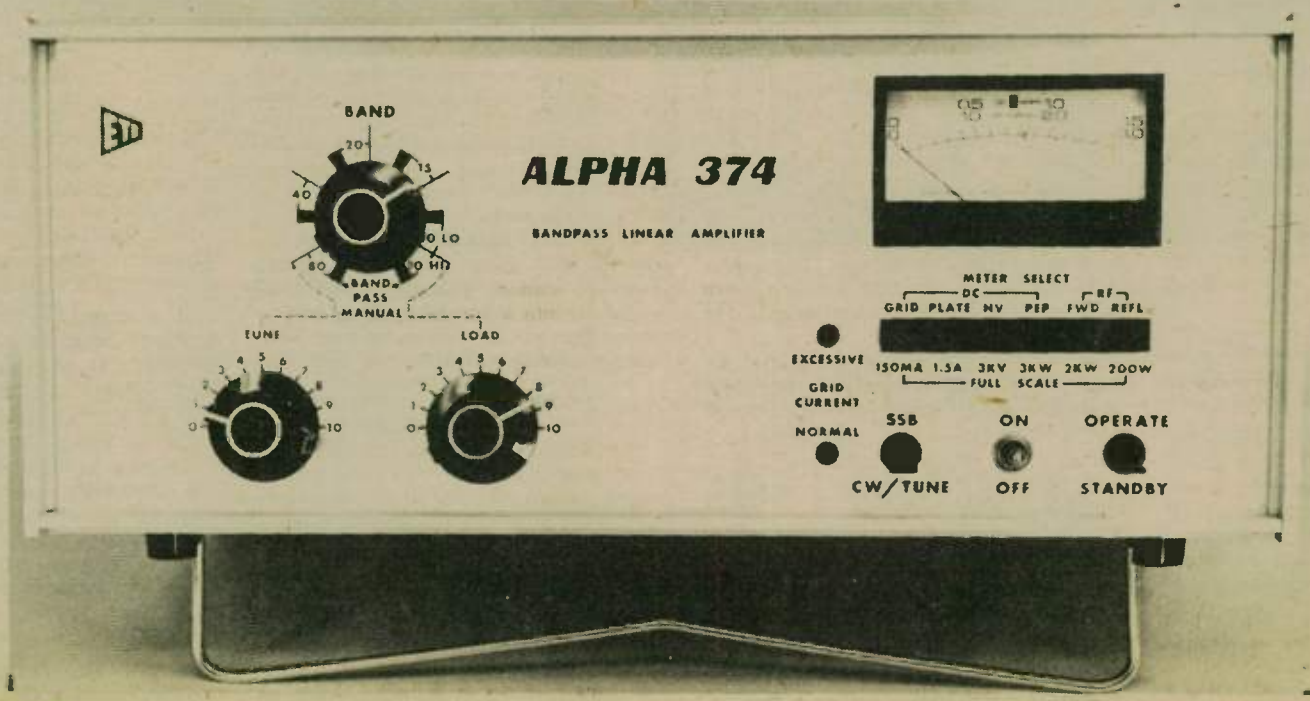

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KD7SPO

by George Hamill, WA7IKZ

George Hamill, WA7IKZ

About two years ago the Spokane, WA, radio community began to think about the possibility of having an amateur radio station in the World Fair Exposition proposed for the City of Spokane.

There were many who questioned the feasibility of the idea of an on-site radio station or of a radio station at all. However, certain dogged individuals continued to twist arms and pound doors, firm in the belief that if there would be a Fair, we should have an "Amateur Radio Station", on the site if possible.

In the meantime, someone had a brainstorm, suggesting that the three Spokane radio clubs should join forces and work together on this project. A Corporation was formed and named "The Spokane Amateur Radio Council" with two representatives from each club. Randy Larson, WA7BZU, and Tony Kjelsen, K7VNT, from the Dial Twisters Club; Don Felgenhauer, K7BFL, and Irwin Schuler, W7BFI, from the Spokane Radio Amateurs Club; Charley Gilson, K7PWK, and Bob Shroeder, W7CHF, from the VHF Club. These men were appointed, and they chose WA7BZU as chairman.

They immediately went to work setting up a program to implement the proposed station. They asked the FCC for a special call. They requested equipment from manufacturers and designed the layout of the hoped-for station. The big problem was to get a space sponsor. After many disappointing near misses, the Red Cross, in collaboration with UNICEF, finally received a commitment for 400 square feet in the "Joy of Living Pavilion," which they agreed to share with us because the amateurs have always been the communicators for the Red Cross.

While all of that had been going on, Swan Electronics came through with their 600 T&R HF equipment. Venus provided SSTV equipment and ICOM agreed to provide an IC22 and an IC230. With this equipment committed, local merchants and amateurs supplied the rest of the hardware and building materials, plus sweat and blood.

The time of approval was only three days before EXPO opening date, May 4. Imagine, if you can, assembling walls, ceiling, benches, electrical outlets, coax feeders, antennas, etc., and installing and checking operation of equipment in that short a time. At any rate, it was accomplished. They came from the efforts to obtain finances without violating the amateur code of ethics which forbids commercializing on the air.

W7QGP, Mary Lewis, the ARRL SEC for the Washington Section, succeeded in getting commitments from many of the clubs on the west side of the Cascade Mountains, and the Spokane clubs came through with contributions of cash and manpower.

In the meantime, the FCC had approved the special call for our station, assigning it KD7SPO.

The morning of 4 May at 20 a.m. PDT, KD7SPO went on the air as an operating station and has been operating more or less continuously since then. There have been times when no volunteer operators were available; but then, 12 hours a day for six months means a lot of operating time.

The success of our operation in spite of the absence of advance publicity has been phenomenal. At this late date, with only three weeks to go, over 1,650 visiting amateurs have signed our guest log. Many of these have come from faraway places, including Germany, France, England, Ireland, Taiwan, Japan, Sweden, Finland, Africa, Australia, New Zealand, Hawaii, South America, the Carribean Islands and others. Also, we have succeeded in making a number of SSTV contacts on the air.

Many visiting amateurs, mostly from the Seattle/Tacoma area, have been guest operators. One special operator was Phyllis Shanks, W2GLB, from Oswego, New York, who spent a greater part of two days making contacts mostly with YLISSB stations, her favorite group.

A large number of our local amateurs have spent countless hours operating and can never be thanked enough. They can feel that they have contributed a great deal toward the advancement of our hobby.

●

1976 Bicentennial

In 1976 we will celebrate this country's 200th anniversary. To promote our birthday, the President and Congress have established the American Revolution Bicentennial Commission. Each state has also established a Commission and so have many local agencies such as cities and counties. The planning state has now been in effect since 1967.

The Bicentennial has three thematic components through which all Americans will be able to participate.

HERITAGE '76

A nationwide summons to recall our heritage and to place it in its historical perspective. All groups within our society are urged to reexamine our origins, our values, and the meaning of America - to take pride in our accomplishments and to dramatize our development.

FESTIVAL USA

A nationwide opportunity to program activities and events, to stimulate travel, and to encourage our citizens to expand their knowledge of our country and extend a particular welcome to visitors.

HORIZONS 176

A nationwide challenge to every American, acting individually or with others, to undertake at least one principal project which manifests the pride, the priorities, and the hopes of his community. The Bicentennial is an opportunity for all Americans to improve the "Quality of life" for Century III.

It would appear that the Bicentennial would provide Amateur Radio, either as individuals or as a club project, the chance to participate. Further information may be obtained from your local city, county or state commission.

●

Repeater in the sky

AMATEUR SATELLITE MATCHING FUNDS

William Eitel, WA7LRU/W6UF and Herbert Hoover, III, W6APW, have generously offered to match, dollar-for-dollar, up to a total of $25,000, donations to the ARRL Foundation earmarked for use in the amateur satellite program.

Funds are urgently needed to support the construction of AMSAT-OSCAR 8, which is estimated will cost on the order of $100,000.

We urge you to support the amateur satellite program with a financial contribution. Please return the form below with your donation to the ARRL Foundation right away, while matching funds are still available. Contributions to the ARRL Foundation are tax-deductible under Section 170 of the Internal Revenue Code.

Thank you for your support!

TO: The ARRL Foundation, Inc.
225 Main Street
Newington, Connecticut 06111

Gentlemen:

Enclosed is my contribution of _____ which I wish to designate for AMSAT's amateur satellite program, as part of the Eitel-Hoover matching fund offer.

Name: _____ Call: _____

Address: _____

_____

●

Preventing lightning from entering power lines

by Gerald Drake, AF9RVD

Most of us go to great trouble to ground our antennas and equipment for lightning protection but forget that lightning enters the service entrance to our homes, causing great damage, and in many instances, loss by fire. The very fact that our equipment is grounded causes the lightning entering the power line to do the most damage. These high voltage surges enter the service entrance and seek the easiest path to ground. Far too often, this path is through the power line to that expensive KWM-2 and then out to our nice grounded antenna. The same goes for that expensive color TV set. I have seen several TV sets in homes on REA power lines that literally exploded from this effect. The electric stove, hot water heater, furnace, and house wiring also fall prey to service entrance lightning and many bad fires have been caused by it. In most cases, the

(please turn to page 34)

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Albany - Nijmegen, Netherlands
Buffalo - Kanazawa, Japan
Canisteo - Wauchope, Australia
Cohoes - (Pending)
Cortland - Peshawar, Pakistan
Elmira - Melsungen, Germany
Garden City - Aix-en-Provence France
" - Coburg, Germany
Jamestown - Jakobstad, Finland
" - Cantu, Italy
Locust Valley - Breisach, Germany
Lynbrook - Tobaru, Okinawa
New Rochelle - La Rochelle, France
New York City - Tokyo, Japan
Niagara Falls - Ise, Japan
Rochester - Caltanissetta, Italy
" - Krakow, Poland
" - Rehovot, Israel
" - Rennes, France
" - Wurzburg, Germany
Rye - Rye, England
Watertown - Kingston, Ontario Canada
Williamsville - (Pending)

NORTH CAROLINA

Charlotte - Arequipa, Peru
Greensboro - Monbeliard, France
New Bern - Berne, Switzerland
Roanoke Rapids - Grafton, Australia
Winston-Salem - Bucaramanga, Colombia

OHIO

Barberton - Setstu, Japan
Botkins - (Pending)
Canton - Cali, Colombia
Chillicothe - Tulua, Colombia
Cleveland - Lima, Peru
Dayton - Augsburg, Germany
" - Monrovia, Liberia
" - Oiso, Japan
Englewood - (Pending)
Findlay - (Pending)
Kettering - Steyr, Austria
Mansfield - Dar-es-Salaam, Tanzania
North Canton - Ibaque, Colombia
Oakwood - La Vesinet, France
Oberlin - (Pending)
Portsmouth - Orizaba, Mexico
Richfield - Wolfach, Germany
Toledo - Toledo, Spain

Latin American trip

by Bill Pomeroy, WA2LEY

On the Amazon River

My wife and I made a rather unusual expedition through Latin America.

I outfitted a 1971 VW camper as comfortable as possible for living and installed a second battery to power a 500 watt SSB transceiver. The antenna went on the roof and I took radiators for 40 through 10 meters.

We drove into Mexico in September 1972, and returned to the United States by sea at New Orleans November 1973. We were out of the US for 14 months, visited 21 countries, and made thousands of contacts. I had spent 9 months before leaving writing to all the countries to arrange the reciprocal license. In all, we travelled 30,000 miles, had 8 flat tires, and got sick with "tourista" 5 times.

We were in San Salvador when the earthquake rocked Managua, Nicaragua so we rushed down with extra food and gas to help out with our radio. We stayed 5 days handling official and health and welfare traffic. I already had my Nicaraguan call of YN1LEY, so I was all ready to go when I arrived.

We made so many contacts that whenever we entered a new city, I knew at least one or more amateurs there from previous contacts. We visited many amateurs who were all very generous with their hospitality and quite curious about Americans. The typical stereotype is that all American men drink scotch whiskey and all American women smoke. American movies, which they love to watch, evidently have quite an influence upon their perceptions of Americans.

It is sad now to return to normal life, get a job, and settle into business without knowing if we will ever make that type of trip again. In order to make the trip, I resigned my job with IBM and sold my house. We figure we spent about $10 per day for the trip which is quite reasonable.

If any other amateurs are contemplating this type of trip and need advice, they can contact me at RD#1, Lafayette, NY 13084.

I am enclosing two photos taken on the Amazon River last August, 1973. We shipped our car and ourselves on this small boat from Belem, Brazil, on the mouth of the Amazon River, to Paramaribo, Surinam. The journey took 7 days, that was 4 days longer than normal because we had a smuggler on board who stopped at jungle villages to illegally buy skins for export. After arriving in Paramiribo, we found the boat had been leaking! It's a good thing the captain didn't try to tell me that! By the way, the car caused quite a lot of excitement when we pulled into the small villages because many of the people had never seen an automobile before.

I hope you have enjoyed this adventure. We would like to do it again, only this time we would like to drive across China and Russia to Europe, with a mobile radio, of course.

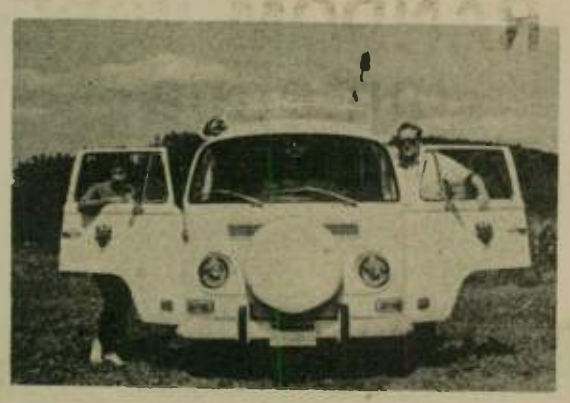
Many villagers had never seen an automobile before.

WA2LEY

EXPEDICIÓN DE AMISTAD

RADIOAFICIONADO MÓVIL EN

NORTE, CENTRO, Y SUD AMERICA



LU	HR
CP	YN
PY	HP
VPI	ZP
CE	OA
HK	CX
TI	YV
HC	PZ
YS	8R
TG	FY7

BILL AND MARETA POMEROY

see page 37

international friendship in amateur radio

Travel

by P. H. Storey, G3YBH

It has been four years since my first visit to Bermuda and the chance to sample hospitality of the Radio Amateur fraternity of your Islands. With this thought in mind, I would like to thank Ed Kelly, VP9GE and Gloria, who on each of my trips have accomodated me and made me feel like one of their family and also the many other families I have had the pleasure of meeting and visiting during my stays with you.

In 1973, I stayed for only five days which coincided with the Annual Banquet at the Southampton Princess. This was the first stop on a seven week trip to the U. S. and Canada which is the main theme of this article.

After leaving Bermuda, I traveled to Halifax at the invitation of Al Leith, VE1AL, and his wife Ann-Louise. We have had around 150 QSO's in the last three years or so and despite two other planned holidays which never occurred and one trip to Europe for Al, which never occurred, we were actually meeting for the first time. I was made very welcome and saw a lot of Nova Scotia. One of the trips I took was up the Trans-Canada Highway to Sydney and there saw the Atlantic coastline from the other side plus the eastern end of the Trans-Canada Highway, later I was to see the western end.

After saying good-bye to my hosts, I flew to Houston, TX for three days via Boston. After taking in most of the tourist sights - NASA, Astrodome, the Port & river -- foremost in my mind was the thought of heading west to California.

Here in Europe, California is the 'heaven on earth' and this really lived up to my expectations. I stayed in Woodland Hills, a suburb of Los Angeles, with Jack Gillis, W6UWM, and Heidi, his Swiss wife. From Jack's QTH I had a chance to operate with a California Kilowatt on twenty meters. This was quite an experience, conditions were good but the band was very crowded, and this gave me an insight as to operation from the other side. I also had a JA opening on fifteen meters which is truly unbelieveable. After operating with 400 w pep at home, a Henry 2K linear at the end of the exciter was a very satisfying feeling!

While I was there I had a weekend in Las Vegas. A split-second decision to go was made, but the flights are frequent, though accomodation can be difficult, especially at weekends when I was there.

The tourist is welcomed and to my surprise, the prices were reasonable, accomodation and food were as cheap as London and entertainment and cabaret cheaper than in the U. K. At a loss as to what to do the first night, I went on a $15 coach tour which started at 5:30 p. m. and finished at 3:30 a. m. This comprised five night clubs with two free drinks at each, one dinner show, a tour of the lights and the town which gave me an idea as to where everything was. I left Las Vegas a little financially worse off, a lot more tired, but with some very happy memories.

I then flew back to L. A. to recover for two days before leaving to visit relatives in Vancouver and Victoria, B. C.

At the invitation of friends in Westport, Connecticut, I flew coast to coast on Thanksgiving Eve to arrive in time for the Big Day. It was my first taste of the holiday and with the food, drink and parties, was very enjoyable. It was the day after I met Vic Politi, W1NU, Meta and family for the first time after quite a few QSO's. They made me very welcome and I enjoyed my visit learning about his Oscar activities and the efforts he made to obtain the Bermuda 100 award and I am now around the 75 mark for my award.

While in this area I toured the ARRL Headquarters, a well run organization, again I was made very welcome and saw the W1AW station, the laboratories, QST production and the DX and operating side as well.

A few minutes from Newington lives Ernie Bosselman, W1DO, and Barbara, who were in Bermuda for the banquet, Ernie being one of the winners of last years Contest. I spent a night with them and had a chance to see his Bermuda slides. Ernie has a fine station and a good QTH as my logbook here at home will endorse -- always 5/9.

I was due to fly back to London on the 30th of November so the week-end before I went to Kingston, NY, where I met some names and callsigns which need no introduction to Bermuda. K2BK, Rich & Theo Rowe; W2DXL/W2DXC, Art & Joanne Wildblood; and WA2AMU Jim & Gerry Glennon. It had been two years since I had seen Art and Joanne, so it was good to say hello again.

So November 30th I arrived, I flew home from New York with many happy memories of my trip. The hospitality shown to me was something I will not quickly forget. To everyone mentioned and the numerous other people, thanks for everything.

●

Radio brings health

by Harry Bolton

In 1935, Dr. A. David Thaeler and the Moravian Mission Board established a hospital at Bilwiskarma, a settlement 90 miles from the east coast of Nicaragua on the Rio Coco, largest river in Central America. Through the years, in high humidity and heat, the frame buildings deteriorated.

In 1968, after completing his residency in general surgery at Milwaukee hospitals, Dr. A. Peter Haupert was assigned to the hospital as director. To continue its work of improving health and life among the Nicaraguan Indians struggling against famine, malnutrition, tropical disease and epidemic tuberculosis, Dr. Haupert decided to rebuild the hospital.

He enlisted the help of many volunteers - contractors, plumbers, carpenters, electricians, masons and physicians of differing persuasions, Lutheran, Methodist, Unitarian, Catholic as well as Moravian, many of them from southeastern Wisconsin.

Indians living along the Rio Coco hauled sand, gravel and lumber. They made more than 1,700 concrete blocks using a hand machine that produced 350 blocks a day. In November 1970, the new hospital was dedicated with Nicaraguan President Anastasio Somona and his wife in attendance.

With 100 beds, an out-patient clinic, intensive care unit, surgical wing, laboratory facilities, X-Ray rooms, administrative offices, and a nursing school with 40 young students, the hospital now serves as the health center for about 40,000 Indians in 80 villages along the river.

In the fall of 1973, W9HHX, the Amateur Radio station operated by students at the Milwaukee School of Engineering, began receiving calls from YN4PH, the hospital station, asking for link-ups with Milwaukee physicians.

Within two months, the signal from Nicaragua faded and failed. Substitute equipment was obtained and through it, Mrs. Joan Haupert, the physician's wife, suggested to James Moorman, WAØDIC, a senior student in electrical engineering technology, that he come down to Nicaragua and repair what needed repair. Flight arrangements were made and Moorman flew south during the week between quarters.

During the week of 25 February through 2 March, Moorman set up a 50 foot antenna and constructed a stand-by unit. He cleaned and adjusted the radio equipment, found that the amplifier needed a part which was later dispatched from the U. S. with a Minneapolis physician, and put the telephone patch in working order so that contacts with friends and associates in the States could be maintained.

He found and corrected problems in the telephone system, in the photometer used for taking blood tests, and in the relay system which carried music from the doctor's home in the corridors of the hospital relieving somewhat a monotony characteristic of hospitals everywhere.

Moorman, of Ames, Iowa, found too that the effects of the earthquake at Managua 200 miles away were felt at Bilwiskarma. Rising costs for food and fuel - gasoline a dollar a gallon, failure of the rice crop and the untimely sale of beans (like wheat to Russia) had deprived the Rio Coco area of its two main staples. Since rice and beans are frequently the only food the villagers eat for weeks at a time, a situation of famine proportions has developed.

Withal, Dr. Haupert and his hospital staff continue their work, and thanks to Jim Moorman and members of the MSOE Amateur Radio Club, their contacts with medical consultants and friends in the U. S. A. Radio is their only means of communication.
A native wood carving Jim brought back bears the inscription: "To Jim and gang at W9HHX - from Joan at YN4PH - we appreciate all of you very much!"

Jim Moorman, WAØDIC, is now an Electronics Engineer for the Motorola Communications Division in Schaumbury, IL.

Agreements permitting third-party communications have been effected between the United States and the following countries (only):

Argentina - LU	Honduras - HR
Bolivia - CP	Israel - 4X/4Z
Brazil - PT/PY	Jordan - JY
Canada - VE/VO	Liberia - EL
Chile - CE	Mexico - XE/XF/4A
Colombia - HK	6D
Costa Rica - TI	Nicaragua - HT/YN
Cuba - CM/CO	Panama - HP
Dominican Republic - HI	Paraguay - ZP
Ecuador - HC	Peru - OA
El Salvador - YS	Trinidad and
Guyana - VP3/3R	Tobago - VP4/9Y4
Haiti - HH	Uruguay -YV/4M
	Venezuela-YV/4M

American amateurs are only allowed to exchange third-party traffic with amateurs in countries that use the following callsign prefixes:

CE	Chile	TI	Costa Rica
CM	Cuba	VE	Canada
CO	Cuba	VP3	Guyana
CP	Bolivia	VP4	Trinidad & Tobago
CX	Uruguay	XE	Mexico
EL	Liberia	XF	Mexico
HC	Ecuador	YN	Nicaragua
HH	Haiti	YS	El Salvador
HI	Dominican Rp.	YV	Venezuela
HK	Colombia	ZP	Paraguay
HP	Panama	4A	Mexico
HR	Honduras	4M	Venezuela
HT	Nicaragua	4X	Israel
JY	Jorday	4Z	Israel
LU	Argentina	6D	Mexico
OA	Peru	8R	Guyana
PT	Brazil	9Y4	Trinidad & Tobago
PY	Brazil		

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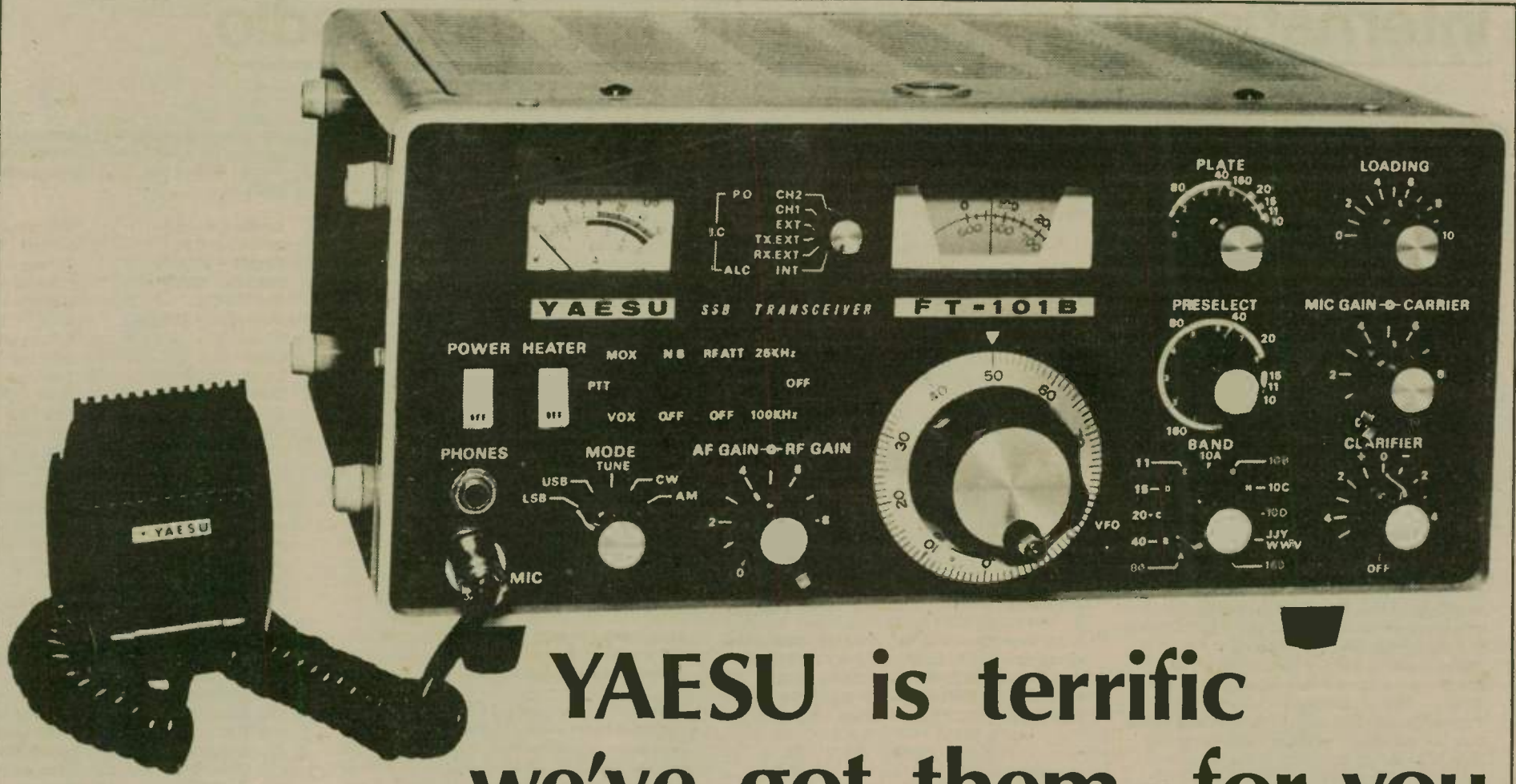
A perfect gift for the thoughtful amateur is a Worldradio subscription. Please see page 37.



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profile

Roanoke Division service award to W4GF

For Diligent And Dedicated Service In Behalf Of Amateur Radio, With Appreciation From The Amateurs Of North Carolina South Carolina, Virginia and West Virginia

Each year a Roanoke Division amateur is selected to become the recipient of the Roanoke Division ARRL Service Award. This award is made to the amateur who in the opinion of the judges has compiled the most impressive record of long term service to the amateur radio fraternity. It is intended as a means of recognition for significant and consistent contribution over a period of years.

This year, Bill Grenfell, W4GF was chosen for this honor.

Bill learned the code from the Boy Scout handbook in 1926. He was first licensed in 1930 as W7GE. His first rig was a 210 oscillator with a slop jar rectifier. In 1931 he got his Class A license and got on phone.

In the spring of 1940, Bill took the examination for Federal radio inspector and was assigned to the Portland, Oregon, monitoring station for training period. Then he was transferred to Seattle as an assistant monitoring officer for the FCC's Radio Intelligence Division. In 1941 he was transferred back to Portland as Radio Inspector assigned to all classes of Federal radio inspection, including ships, broadcast stations, public correspondence and amateurs. On December 1, 1943, he handed in his gold badge to the FCC and joined the Navy as a Lieutenant JG. The Navy sent Bill to Bowdoin College for pre Radar school, and from there to MIT Radar school, where he finished number 1 in his class. He remained at MIT as a Navy Radar officer assigned to the laboratory to ride herd on the IFF and Navy airborne beacon projects, which included a bit of flight testing. After a year of this, he was sent to Washington for a tour in the Bureau of Aeronautics. When the Japanese surrendered, Bill went back to the FCC as radio engineer and was assigned to the frequency allocations division where he worked on the revision of the FCC's allocation table.

In May of 1952 he became chief of the FCC's Rules and Legal Branch. In this role, Bill proved to be a real friend of the radio amateurs of the United States, and at the same time was credited with "substantial contributions" to the Commission. Described as the "Shepherd of Ham Radio" in this job, Bill established a well-deserved reputation for fair and reasonable treatment of amateur regulatory matters.

Hardly the prototype of the aloof and independent bureaucrat, Bill made it a point to circulate among and maintain consistant contact with the members of the fraternity he served so well. For example, Bill has attended every League Officials meeting held in the Roanoke Division since 1966. He is a member of the Potomac Valley Radio Club of Washington, D.C., having joined the club in 1953, and served as its president in 1955. He has also performed most creditably as club secretary and treasurer. By no means narrow in his pursuits as a radio amateur, Bill is an active contester, a DX enthusiast and participates in a number of ragchew groups, works both single sideband and CW, as well as two meter FM.

Bill has taken part in five separate DX-peditions to Curacao and entertained many of us with talks and slide shows resulting from those trips. He is a holder of the Extra Class license, is a member of the A-1 Operator Club and the First Class Operator Club of England, holds the WAC, DXCC and WAZ awards and is a Life Member of the ARRL. Bill has served as president of the Washington Chapter of the Quarter Century Wireless Association, and was recently elected as a delegate-at-large to the Foundation for Amateur Radio. He is the author of the FCC Highlights, which appears each month in the Auto-Call.

Since his retirement from the Commission in 1971, Bill has continued to be active in Amateur Radio and has used his new found leisure time to acquire a private pilot's license. In fact, he is very close to qualifying for his instrument rating..

Many of his contributions to the Amateur Radio Service, as well as his acts of kindness to individual amateurs during his tenure with the FCC have gone unsung. Perhaps we can, in this small way, express our thanks to Bill for his untiring efforts in our behalf and convey our warm appreciation for his dedication to an activity which means so much to each of us.

(Auto-Call)

ARRL Foundation

(Continued from page 22)

Amateurs have traditionally sought new ways to broaden the technological frountiers of amateur radio, to develop new ways to render public service, to sustain and strengthen amateur radio as a vital national and international resource. Continuing research is needed.

These are just some of the kinds of programs the ARRL Foundation was created to support; to provide an opportunity for every amateur to be involved directly and personally in the future of amateur radio.

Fundings:

Gifts to the Foundation may be made as outright cash bequests, by designation in wills, through insurance beneficiary provisions, by assignment of securities, and in other ways for which information is available from the Foundation. All such gifts are tax-deductible, of course. No gift is too large or too small. Contributions of any amount may be made for general purposes or designated for specific programs or projects if the donor so desires.

The ARRL Foundation has been established by the American Radio Relay League, national association of U.S. and Canadian radio amateurs, and is chartered as a nonprofit corporation in the State of Connecticut. It has been granted tax-exempt status by the U.S. Internal Revenue Service. Its affairs are governed by a Board of Directors of distinguished radio amateurs as a Separate entity from the League. The Foundation is headquartered at 225 Main Street, Newington, Connecticut 06111.

interference

Dr. Theodore Cohen, W4UMF

The problem of electromagnetic susceptibility is of major concern to most manufacturers of electronic equipment, be they in the industrial, medical or military areas.

As noted by James D. Fahnestock and Ralph W. Logan (Solving the EMI Problem, Electronic Engineering Times, 2 August 1974), anyone using electronic equipment where the consequences of failure are severe is acutely aware of the susceptibliity problem, and of the necessity of insuring that the equipment in question will not fail when operated in the presence of high rf fields. Obviously, the user of a pacemaker would rather not find out that his device was susceptible...the results could be fatal!

The manufacturers of home entertainment equipment are also faced with several problems as regards electromagnetic interference, or simply RFI, as we choose to refer to it.

Not in the least of these problems is competition. If manufacturer A, wishing to be conscientious, incorporates bypassing in his hi-fi product, while manufacturer B, who produces a similar product, omits the bypass components, manufacturer A may be placed at a disadvantage in the market place, for those who use his equipment may not be aware of the advantages of RFI protection. This, perhaps, is one explanation for the history of manufacturer's reluctance to act individually on RFI problems. This too, is in itself a good argument for federal RFI legislation such as that proposed by the late Congressman Teague (HR 3516).

Legislation on susceptibility reduction which requires compliance by all manufacturers removes, to a large extent, the competitive edge one manufacturer might gain over another by cheapening his product through the omission of bypass capacitors, filters, etc.

Even with legislation, however, the federal agency charged with writing and promulgating the rules and regulations for the reduction of susceptibility (presumably the FCC) must still determine those standards to be used for susceptibility testing. Here, the difficulty is one of determining the future operating enviroment of the equipment. Will an electronic organ, for example, be located next door to an amateur station, or down the road from a commercial broadcast station?

The manufacturers of industrial, medical, and military electronic equipment know from experience that susceptibility to undesired rf fields can lead to field failures, law suits, and the rejection of products. Thus, the military in particular has for some time promulgated susceptibliity standards against which equipment must be tested. An early specification, and one still in use today, is MIL-STD-461. This specification essentially states that no malfunction or degradation in performance shall occur when the equipment under test is subjected to a radiated field of 1 volt per meter (V/m).

Given our ability today to generate high rf fields, the 1 V/m specification may not be a sufficient standard against which to test equipment. Fahnestock and Logan point out that the field one quarter mile from a 50 kw broadcast station is about 150 V/m. Even a 1 kw amateur transmitter feeding a dipole antenna can generate a field beneath the antenna of 30 V/m. But if 1 V/m is not sufficient, against what standards whould manufacturers be required to test electronic equipment? Specifically, against what standards should manufacturers of home entertainment devices be required to test their equipment?

Several amateur groups are seeking the answer to the question on susceptibility standards for home entertaiment equipment. The ARRL RFI Task Group is active in this program, and the subject is of particular concern to the Task Group's Technical Advisor, Lew McCoy, W1ICP. A California group, the Santa Barbara Electronic Interference Assistance Committee (Don Gerue, K6YX, Chairman) is also actively investigating the feasibility of employing various susceptibility standards.

The results of these and other investigations will be the subject of a future column. Meanwhile, we invite your comments and suggestions on the subject.

RFI Packets assembled by the ARRL RFI Task Group are still available from me upon the receipt of a large Manila envelope (9 x 12), self-addressed, and with 40¢ postage affixed. Write: 8603 Canover Place, Alexandria, VA 22308. And please be patient if the packet doesn't show up for a week or so...we've been swamped with requests!

●

Congressional action

by Eunice Bernon, K8ONA

Rep. Charles A. Vanik, D., 22, is running interference for besieged amateurs and an aroused public over blips and bleeps on the TV screen.

It all began last spring when an amateur antenna column, "Bugged by Interference?" encouraged readers to write their congressmen with requests to promote passage on Congressional Bill, H.R. 31516, to amend the Communications Act of 1934.

The bill would have given the Federal Communications Commission authority to require manufacturers of television and radio receivers to meet certain technical standard for filtering out interference from any amateur radio station or citizens band station operating on its own assigned frequency.

"I am very concerned by the FCC's complacency about this situation," Vanik writes.

The FCC admits that each year some 40,000 complaints of interference are received from radio and television owners and that in the case of 90% of these complaints the problem lies in the quality of the electronic equipment sold to the unsuspecting consumers.

"An FCC letter on the subject is a statement of caveat emptor, a particularly cruel policy since most individuals have little or no understanding of the complex field of electronics", Vanik said.

"The FCC letter also indicates that the cost of installing high-pass filters on television sets would be much cheaper in the factory than at home and through a TV serviceman. I am asking Mrs. Knauer's office what actions they will be taking to follow up on this matter." (Virginia Knauer is special assistant to the President for Consumer Affairs.

"I believe that the FCC's letter is an admission that something must be done to protect the consumer. Indeed, the FCC seems to be amenable to the enactment of a bill such as proposed by Dr. Theodore Cohen (W4UMF) of Virginia. "(Cohen's proposal seeks broader consumer protection, including elimination of interference to organs, hi-fi's etc.)

●

attn: new amateurs

Congratulations on your new license! Please allow us to welcome you to the wonderful world of Amateur Radio.

It was our pleasure to send you, as a gift, this copy of WORLDRADIO. We did that so you could see the action, adventure, international friendship, emergency communications and public service aspects of this great avocation.

The more you know about something, the more you will enjoy it. We think WORLDRADIO will help you enjoy Amateur Radio. We cordially invite your subscription.

LOVE and HELP are her call signs

Darleen Magen (or HC2YL, if you prefer) is an extraordinary woman.

In addition to her roles as wife and mother in Guayaquil, Equador, she is a worldwide traveler, authoress, amateur radio operator, and most recently, a matchmaker.

The match in this case, was bringing together seven Equadorian children and the seven waiting Erie area families who are adopting them.

Together with Erietes Cass and Josi Jackson, local short wave enthusiasts, Darleen helped manage the mountains of necessary legal, medical and personal records and releases needed to join parents and children all over short wave radio.

Darleen and the children arrived Sunday. The youngsters now safe with their new families, Darleen is enjoying a visit with the Jacksons.

Among the unique accomplishments of this active lady is an around the world "DX-pedition" which took her, and her equipment to 39 countries. She was a guest in the home of JY1, also known as His Majesty, King Hussein of Jordan, and also the first American woman ever to operate the Vatican amateur radio station in Rome.

The fascinating story of Darleen's adventures is narrated in her book, "Globetrotting Via Amateur Radio".

One of the most interesting episodes concerns Terry Konnich, Daughter of the Leroy Konnichs of Saegertown.

Earlier in the year, while Terry was studying in Guayaquil as an AFS student, she developed appendicitis. Premission from her parents to operate on the 14-year-old was urgently needed.

Soon Darleen's radio waves were traveling, and through Cass Jackson, Mr. Konnich was located. Permission secured, Terry was soon on her way to recovery. Later, Cass and Darleen "phonepatched" the Konnichs to their daughter, enabling them to converse with her in the hospital. And Darleen visited Terry, with flowers and love from home.

Darleen will soon return to Equador and her her family, husband Joe, and one-year-old daughter Diane Renee.

But she has left her mark here in the form of seven new localites and twice as many joyful parents, as well as some great friends, all of whom "have her number".

"Times-News" Erie, PA)

●

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- **Modular Construction:** Includes plug-in circuit boards for ease of service and maintenance.
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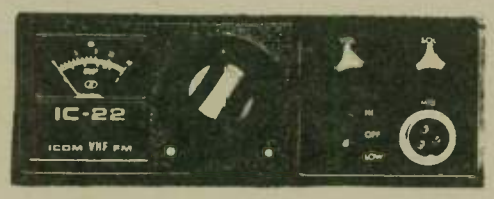
- **Frequency Control:** Highly stable VFO, common to both Receive and Transmit modes. Tuning dial calibrated in 5 kc increments with easy interpolation to 1 kc. Tuning rate is 15 kc per revolution.
- **External Frequency Control:** Rear socket provides for plug-in of external VFO or crystal oscillator for separate control of transmit and receive frequencies, or for network and MARS operation.
- **Power Supply Requirements:** Operates directly from 12-14 volt D.C. source, negative ground (standard automotive electrical system). Draws 0.2 to 0.4 amps. in receive mode, 16 amps peak in transmit mode. (Atlas models AR-117 and AR-230 desk top power supplies are available for AC operation.)
- **Front Controls:** Tuning Dial, Dial Set, Function Switch, Band Switch, A.F. Gain, R.F. Gain, Mic. Gain, Sideband Selector, Calibrator Switch, Dial Light Dimmer.
- **Finish:** Vinyl Covered Steel. Durable and scratch resistant. Black.
- **Dimensions:** 9½ in. wide, 3½ in. high, 9¼ in. deep, overall.
- **Weight:** 8 lbs., net. Shipping weight: 9 lbs.

Trade-up to ATLAS at M-TRON

SALE SALE SALE SALE



IC 22 2 meters FM 10 watts 22 channels w/5 sets of xtals: 34/94, 22/82, 28/88, 94 simplex, 52 simplex. - in brackets - same outstanding receiver performance as in IC-230 - Regular price $289. Sale price $249

Last call on the FPM Safari Mark II, only three left. Regular price $595. Close-out price $499.95.

Midland -Model 13-509 which is a 12 channel 10w 220 MHz FM unit. Reg. $219.95 Sale $179.95

Ham II heavy-duty rotator, reg. price $149.95, Sale price $119.95.

CD-44 Intermediate size rotator, reg. price $99.95, Sale price $79.95.

MPC -Model 108R, 8 amp 12v, Regulated power supply, 12 amp max. Reg. price $64.95, Sale price $59.95

MPC -Model 104R, 4 amp 12v DC, Regulated 6 amp max. Reg. price $47.95, Sale price $39.95

B&W Dummy-load watt-meter. Reg. price $79.95, Sale price $55.00

M-TRON stocks: Drake, Icom, Magnum, Ten-Tec

Antenna Warehouse

We now have the high performance broad banded KLM HF antenna. The following are now in stock.

For 2 meter 144-148 MHz

7 element $23.79
8 element $29.19
9 element $34.49
11 element $38.79
12 element $42.19
14 element $49.69
16 element $53.95

420-470 MHz
14 element $21.55
27 element $41.95

Baluns for all of the above are $13.95.

Adjustable brass CW keys. $4.95.

Midland battery operated code osc. w/speaker $13.95.

#14 copperweld antenna wire 100 ft. lengths - $4.95.

We now stock 73/TAB Amateur publications covering SSTV, RTTY, ATV - repeater operation and construction. Novice, General, Advance and Extra Class study guides.

New at M-Tron-We now stock the Larsen line of mobile and base VHF antennas including the following:

HY-150	$22.50
LM-150	$22.50
PO-150	$24.50
LM-440	$22.50
BSA 440K	$49.00
BSA 150K	$49.00

Cushcraft - now stocking

A-147-11 el	$21.95
A-144-11 el	$21.95
A-430-11 el	$17.95
A-449-11 el	$17.50
ARX-2-2K	$ 9.95
A-147 ZPK	$19.95
Ringo AR-2	$15.50
Ringo Ringer ARX2	$24.50

Curtis EK 420A Electronic keyer $139.95.

Ameco PLF-FET 10 to 160M converter preamplifier $44.

Ameco PT Transceiver preamplifier $66.00

Millen solid-state GDO $125.

Viking phone-patch $34.50

Newtronics model 4BTV $69.95

Newtronics G6-144 Alpha $52.95

Save Energy - Shop By Mail....

Hy-Gain TH6DXX $244.95

USED GEAR LIST - SALE

	Reg.	Sale
Lafayette HE-73 preamp conv	$39.95	29.00
Collins 204FI 2 KW plus xmtr	3,950.	1,900.
National NCX-3 SSB xcvr	$169.00	$119.00
SBE SB-34 SSB xcvr	$295.00	$229.00
Galaxy V SSB xcvr	$219.00	$179.00
Drake T4XB xmtr	$375.00	$339.00
Hallicrafter SC-110 rcvr	$109.95	$89.00
Johnson Valiant	$149.00	$135.00
Collins speaker	$14.95	$9.95
Drake T4X-SSB xmtr	$289.00	$260.00
Drake AC3 AC power supply	$65.00	$49.95
Swan 117v AC power supply	$65.00	$55.00
Galaxy GT-550 SSB Xcvr	$289.00	$239.00
Galaxy X0550 fixed frq. adp.	$29.00	$19.00
Galaxy SC550 spkr	$19.00	$14.95
Galaxy 400 pwr sply	$75.00	$59.95
Galaxy G1000 DC Pwr sply	$75.00	$59.95
Swan 500 C SSB xcvr	$339.00	$295.00
Linear Sys. 400-12 Mo-p/s Mint	$95.00	$75.00
Heath HW-16 Novice xcvr	$99.95	$89.95
Ten Tec VFO Mint	$49.95	$39.95
Heath DX-60 B Novice Xmtr	$69.95	$59.95
Heath Scope		$49.95
Drake RV4C VFO (fits TR3/4/4C	$95.00	$85.00
Clegg AC P/S for FM 27B Mint	$	$59.95
Swan 500 CX w/vox	$399.00	$359.00
Swan 117XC AC P/S speaker	$85.00	$69.95
Swan 14-117X Mobile supply	$99.00	$79.95

New Hours:
Mon. - Fri. 9 a.m. - 5 p.m.
Saturday 9 a.m. - 4 p.m.

Contact us for cash deals and package deals. We give liberal trades. You may purchase with Bankamericard, Master Charge or on bank terms.

Grab Bag - We have lots more of the fabulous parts grab-bag at $4.00 each or 2 for $8.00. Each bag is guaranteed to have more than $25.00 worth of brand new comonent parts.

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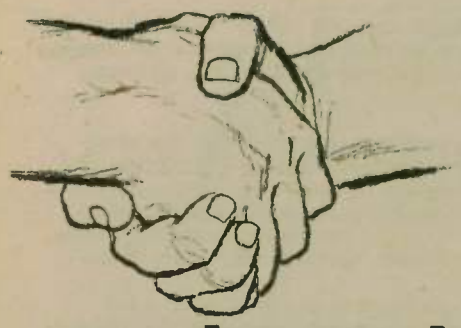

reach out

Outstanding amateur radio operator

ROMNEY - George Freeland, teacher of basic electronics at the West Virginia School for the Blind was named "Outstanding West Virginia Amateur Radio Operator of the Year" at Jackson's Mill.

Mr. Freeland, whose amateur radio call letters are W8GSN, was awarded a plaque during the 16th annual state convention of amateur radio operators.

He was cited for his tireless, volunteer work in helping teenagers at the local school to get an amateur radio license.

Mr. Freeland has taught them code, elementary electronics, operation of a radio station, as well as knowledge of Federal Communications Commission rules required to pass the test for a novice amateur radio license. To date, five students have passed the examination.

Mr. Freeland is well experienced in amateur radio operations, having received his call letters in 1931.

He formerly worked communications for West Virginia State Police here and was chief operations technician for the Eastern Panhandle some 18-1/2 years.

Mr. Freeland is a former employee of Allegheny Ballistics Laboratory and Western Union.

(The Cumberland News, Cumberland, Md.)

●

Paraplegic finds a new world

Otho Jarman never leaves his bed, but his voice carries him around the world.

The 38-year-old paraplegic operates an amateur radio station in this Southern California desert town.

He uses his neck and face muscles to operate an ingenious system of controls. Frequency is tuned with a geared-down reversible motor controlled by his cheek pressure.

The 15-meter beam antenna is rotated from a three-position chin switch. His lips turn power on or off.

He forms Morse code characters with breath sounds which are translated into electrical impulses at speeds up to 35 words a minute.

Jarman's courage, determination and the help of others are filling the long hours with the adventure of communicating with other amateurs near and far. He has reached points as distant as New Guinea.

When 22, Jarman broke his spine diving into a reservoir to save a child from drowning. He is paralyzed below the neck, unable to move except for his head.

His interest in radio was fanned in 1970 when the Barstow Amateur Radio Club offered to help any handicapped person become an operator.

Jarman had no experience in radio, but he responded.

Studying, and with tutoring one hour each Sunday for seven weeks from club members, he passed his Novice examination and began communicating with the outside world, using Morse code. The Barstow Radio Club obtained equipment for him. Ten months later he started studying for a higher grade license.

He passed the Federal Communications Commission test and began transmitting by voice after receiving call sign WB6KYM and a license equivalent to the General class.

Now he is thinking about taking the exam for an Advanced grade.

Jarman spends about five hours a day on the air.

"I can't put into words how much this means to me or express my gratitude to friends from the Barstow Amateur Radio Club," he said.

"Before they came along I could only read to pass the time, and was just about dead inside and out. Now, I feel a whole new world has opened up for me — there is nothing like it."

Jarman has found other handicapped "amateurs" on the air waves and has given them advice and help.

He also frequently gives directions to travelers on the highway between Los Angeles and Las Vegas, Nevada.

(San Jose Mercury-News 9-29-74)

●

ARRL Foundation

As an amateur, what has Amateur Radio ever done for you?

How about fun and relaxation - pride of accomplishment - satisfaction in providing useful public service - being part of a very special fraternity - getting into a successful career - just for starters?

How would you like a chance now to do something for Amateur Radio? Perhaps to give one of today's youngsters somewhere in the world the opportunity to discover the excitement you have known as an amateur. Or to have a piece of the action in supporting many efforts based almost solely on the inspired cooperation of dedicated volunteers everywhere. Or just to make yourself a part of tomorrow.

That's what the ARRL Foundation is all about.

Programs and Projects:

Countless volunteer hours representing many skills have made it possible to put Amateur Satellites (OSCARS) into orbit and to manage their subsequent operations. But at some point any program reaches a size and complexity when it needs financial support, financial support exceedingly modest in comparison with the results attained.

Amateur radio has always been involved in youth programs through the schools, Boy Scouts, Boys Clubs, special projects and many more. These projects are growing and improving all the time; they are being expanded to reach around the world. A very ambitious and comprehensive program, for example, is now bringing the use of the OSCAR satellites into classrooms everywhere as a teaching aid and learning experience in space communications and science. More educational materials for teachers, training aids and films must be developed and distributed to teachers both here and abroad.

Direct educational assistance for promising U.S. and Canadian youth in fields related to amateur radio represents another great opportunity.

(please turn to page 18)

Send a friend

I thought you would be interested in seeing a copy of "Worldradio". At the publisher's suggestion, I've asked him to send you one. I hope you enjoy it.

name of guest

address

city, state, zip

my name

Clip and mail to "Worldradio", 2509 Donner Way, Sacramento, Calif. 95818. Thank You

Hosting foreign amateurs

by G. L. Baker, W5QPX

"This, then, I command you that you love one another" - John 15:17

"Continuation and extension of the Amateur's unique ability to enhance international good will" - 97.1 (2) FCC Rules and Regulations.

On a number of occasions over several months via on-the-air contacts and correspondance, I have noted considerable renewed interest in the matter of amateurs hosting each other on an international basis. I dare say the yen to travel was present in years past, but with the economical situation such as it was in a given locale, eye-ball QSO's were rather rare. Now, however, with the monitary matter turned around somewhat and the ever increasing list of reciprocal agreements, the number of visiting amateurs is increasing in proportion.

The 'pilgrim in a strange land" saw knows no particular endeavour and applies to amateurs as well. Moreover at times it is quite pronounced in various ways. There is no greater inadequate feeling than to find oneself far afield in unfamiliar climes. Irregardless of stature or financial position, to find oneself abroad with no personal contact or advice is most disheartening to say, the least. It's a lonesome old world, my friends.

I am reminded of a chap who in the immediate past year took a package bus tour of the States. Hosts were rather sparse even with some advance planning. A particularly galling point was that there were a number of metro-type areas where this fellow made local contacts via the repeaters with a personally carried walkie-talkie. There was not one invitation to have him for a "cup and an eyeball" or an offer to drop downtown and take him out for a cool one! Mind you this individual was using his overseas call with the appropriate portable "W" suffix. A sad affair indeed, but perhaps it's indicative of the mode in question.

Doutless it will be argued that the affair was of his own making. Well, yes and no if one wishes to be small about it. We cannot fault him for expectation of amiable contact in a country he has never seen before. On the other hand, who's to blame him if he departs these shores with a sour taste in his mouth?

I have yet to meet a foreign national by whom I was not enriched to some measure as a result of meeting him, or her, even though the visit was all too brief. It has been my extreme pleasure to have hosted DL, 5A1 and YN. On other occasions I've "missed the boat" due to having resided too far from a visitors itinerary.

It is perhaps significant to note that irrespective of there not being an amateur in residence, my family and I have been welcomed into radio shacks of SM, LA and JA merchantmen when visiting KJQ and KLB country. This courtesy can probably be attributed to the fact that both parties in question were of a like profession - communications. They in the maritime service and I in the aeronautical end of things.

Suffice to say the biggest bugaboo in the area of international visitation has been the lack of communication and coordination. Where do we start in an attempt to rectify the situation? Some will recall several years ago an organization known as the International Ham-Hop Club (IHHC) that existed for a time. From what little evidence I can find it seems to have met with some success. For some reason unknownest to me it was phased out. I was a member of the IHHC for something on the order of two years in its latter existence. Unfortunately, this was one of the occasions I missed hosting a visitor as I was in one of those "wide spots in the road" locations and off the "beaten path" so to speak. Small matter however, for if my membership dues helped the program as practiced by others of the IHHC, then I didn't feel so left out overall.

My good friends in Germany inform me that the European chapters of the IHHC held on for some time after the USA organization folded. Naturally the Europeans were eventually forced to disband due to reciprocal privileges no longer being available to them on this side of the Atlantic.

There is currently an organization with headquarters in NYC which appears to be a Quasi-social affair. Its membership fees are outlandish (something on the order of $30.00 as I recall). A personal interview is mandatory before one can attain membership. Suffice to say such a group would not suit our purpose.

It's a proven fact that when one is abroad, notably in some of the European countries and the "word" is out that an off-continent ham is in the vicinity, you are "in business" in good fashion once you make your presence known.

The hosting is done with variations as necessary depending on the circumstances. At times it's the local Club doing the honors as most of them have a visitors committee or at a minimum a DX activities chairman. (What a marvelous opportunity for USA clubs)! Some groups have a modest fund for such activities. Now and then one will be hosted by an individual of the Club who takes it upon himself as a fellow ham or as a representative of the particular Club in question.

By and large Clubs in Europe have it all over like groups in the States hands down. Agreed that there are those that are nigh on to being decreed by higher authority. Be that as it may, the atmosphere under which they pursue the matter is rather unique. Solvency does not seem to be the determining factor as to its continuancy. On paper it may appear that some of them are rather meager affairs, but the main ingredents are there nevertheless - interest, enthusiasm and cooperation.

One can readily understand Lower East Branch, Minn. ARC and Sugar Flats, Maine Radio Society with a handful of members and "out in left field" through circumstances, would not be in a position to host foreign visitors. But the likes of St. Louis, Phoenix, Houston or Pittsburgh clubs caring less makes no sense at all!

It would seem that the fault of the majority of USA clubs lies in the area of the membership being composed of uncooperative, self-centered mode/band fanatics and general nitpickers.

It's a pity that far too many Stateside clubs have no DX activities or functions whatsoever. A shame.

I understand there is a good group in the lower delta country and a few "white hats" in W2 land. Good show! Credit where credit is due had I such knowledge thereof.

"Voice of America" broadcasts are fine and dandy but the proof of the pudding is in the personal approach. An exchange of ideas via "eye-ball to eye-ball" and having "been there" is worth a ton of propaganda broadcast material. One of the main faults people possess is a tendency to be too easily influenced by the various mediums. I rather consider a DX "eye-ball QSO" something of a "poor mans Amateur Radio Peace Corps."

Structure-wise, from comments, recommendations and assorted feedback it has been suggested that a Coordinator for each of the ten (10) call areas (or regions) be chosen to handle the affairs between its members and potential visitors. Let us suppose KP4 would handle matters for the Caribbean area, KH6 for Pacific affairs and KL7 at the helm in the land of the midnight sun.

Regional coordinators would be liaison between the visitor and prospective hosts. I dare say a Regional coordinator would be in a better position to possibly know some of his own members than a National coordinator far removed from the scene of concern.

It is perhaps necessary from an organizational standpoint to have a National Coordinator if only for liaison between Regional coordinators. Duties of this office undoubtedly would be of a lesser stature than at regional level. Such matters as filling vacancies at the Regional coordinator level and on overall clearing house function and more or less a behind the scene type of office rather than an active participation role.

Regarding foreign membership, it would seem reasonable that a number of countries could also adopt the Regional coordinator structure. In the smaller countries perhaps one individual could conduct the affairs internally as a whole.

One would have to agree that any membership fee's would remain within the domestic regions or overseas countries in question. A worldwide central "kitty" would be grossly unfair and cumbersome. A sum of $2.00 yearly (IRC's acceptable) has been mentioned and does not appear to be unreasonable all things considered. This amount should be sufficient for the conduct of business within the region or country. Bear in mind the indidual members would pay postage on their individual correspondence regarding hosting matters once they have been referred to by the Regional coordinator. The Regional membership dues would be accountable by the coordinator on a quarterly, semi-annual, etc. basis.

What to name the outfit? I would leave that up to the readers. No prises! No freebies! Just credit for a suitable organizational title.

To keep tabs on the accomplishments of our endeavors, there is a possiblilty we might have bi-monthly or quarterly column in Worldradio News with stories, photos, credits, etc., ye editor concurring. (Editor's note: Sounds great - Let's do it.)

There you have it. Your serious and earnest comments are solicited. You may address your comments, remarks, etc, to me or Armond, WB6AUH, Editor of Worldradio News. (Another note: Gil's address is 101 Rita Blanca Trail, Amarillo, TX 79108)

Here's to happy hosting - 73 y DX.

●

It can be done!
Indoor garage antenna

by G. Samkofsky, K4HRU (ex W2YSF)

We moved to Orlando, Fl. in March of 1972. As I was now the proud possessor of a fine home with plenty of antenna space, I ordered a multi-band beam along with the "fixins" and envisaged the rotating array which I had never been able to have from the old QTH in Brooklyn.

However, it does take some work to assemble the beam and get the tower up. In order to meet some new friends in Orlando on 20 meters, I decided to "throw together" a temporary 20 meter dipole in the shack which is located in our two-car garage. The dipole was bent into the shape of a narrow "V" as even the wide garage cannot hold the 33 foot dipole in a straight line. As the antenna was to be used only a short while, I simply dropped the far ends of the dipole across two cartons each about four feet high.

When I called my first CQ, I really felt foolish. After all, the wire was only four feet off the ground at the far ends and only 7 feet high at the center insulator. Too, the garage is in back of a large aluminum screen-porch which was broadside North, the side which the V was favoring. My power was 250 watts DC. I had no idea what my SWR was. I simply had to try that day.

To my surprise, my first CQ was answered by a station in El Salvador who gave me a 5-9 report! OK, I thought ... it was only a lucky strike! It could never happen again. But my next CQ brought me a station in Italy who gave me a 5-8 report! Careful not to move the wires, I continued to operate the station for the next week with the same hay-wire dipole ... by the end of the week I had made contact with numerous countries and many states. By all the rules, this antenna should not have been much use for more than local contacts, but here I was "hooking them like a QUAD."

Then I decided to make the antenna a permanent fixture. I raised the far ends of the dipole to about 5' simply hooking the ends to metal loops screwed into the wall.

To date after 22 months of operation, I have worked into such lands as: VK, ZL, CR6, UA, plus numerous European, South American and others. It has been suggested that our home is located on an underground river which acts as a natural reflector. While not to be compared to a true rotating array, we have been able to compare favorably with local amateurs using said arrays. Best of all, the weather and wind cannot touch the antenna, it is not visible to neighbors, the cost is less than $2.00. We hope to reach DXCC with the indoor antenna ... then we will put up the long-waiting beam and see if we had actually lost out by not doing so earlier. For older amateurs not able to climb towers, poles, this represents an easy means of having a station function.

Who knows? ... you may even work out better than we did!

(Florida Skip)

dx digest

by Gary Stilwell, W6NJU

This month we will try and cover several subjects. By now the CQ World Wide Phone Contest will be history. From the advance information, it looks like a lot of DX-pedition activity which should make things lively. Hope conditions help us out. During November and December I will have the rare opportunity of being on the other end of the pileups. On a trip to VK7 land, I will be making stops at KH6, 3D2, YJ8, FK8, ZL and FO8. Hope to bring back some pictures we can use in the coming months. Hope to see you in the CQ CW fracas from YJ8, courtesy of my good friend, YJ8BL. May the bands open wide.

Here and There

K6SE plans to operate HH2WF, 16-19 Jan. 1975. Frequencies are 28.600, 21.360 14.280, 7230 and 3900. QSLs to WA2JDT.

JAØCUV hopes to be on from Bangladesh from 15-17 November with the call C2IDX/S2. Other stops will be Maldives from 20-29 November, Rangoon, Hong Kong and Macao. Frequencies will be 3.775, 7.075, 14.195, 21.275 and 28.600. On 20-29 November, Maldive call signs will be 8Q6AD and 8Q6AE. Look for them on 3.525, 7.025, 14.025, 21.025 , 28.028, 3.775, 7.175, 14.195, 21.275 and 28.600. 8Q6AE will be on 160 meters 1803/1823. QSL's to JAØCUV.

VE3EZM has started out on a long trip which will take him as follows: 3D2 31 Oct. -22 Nov., A35 28 Nov. -21 Dec., VK/ZL to 22 Feb., ZK1 22 Feb. - 11 Mar., FO8 11 Mar. -21 March, then PJ8, 8P6, VP2E, VP2A, VP2K, VP2V and VP5. Frequencies to watch will be 14.180 and 21.250. QSLs to VE3GUS.

Ye editor hopes to operate the CQ World Wide CW contest from YJ8GS. This should be an all band effort. QSLs to W6NJU.

WB6LTJ, K6RIR and K6YFZ will operate from Wallis from 16 November for two weeks. Calls to be used are FWØDX, WØIC and during the CQ World Wide CW, FWØAA. Both CW and SSB, all bands including 160 meters.

QSL INFORMATION

C31EN to F6BCG
C31HD to F6BII
CT1AV to W7VRO
CT2BN to WA9PZU
DL4GX to W7MPZ
EL2FT to WA3NGS
EL2KS to WB4SRX
EL8NS to WB4SRX
FB8XF to F2MO
FB8XG to F2MO
FM7AQ to I2YAE
POØRC to W6JZU
FOØRM to W6JZU
FY7AN to WB4VUP
KB4ERN to WB4CCU
KC4NI to K2FT
KS9EAA to WA9GJU
P29MM to K4MQG
PJ4CR to W3HNK
PJ8AS to WØIPU
PY1PY to W3HNK
SVØWO to W7MPZ
VP5WW to WB4EYX
WS1ACR to W1SYE
WL4GBC to WB4KZG
WF6VEN to W6MHK
WS9BGF to W9NJU
YJ8GS to W6NJU

DX ADVISORY COMMITTEE

Results are now available on the DX advisory Committee's questionnaire that was circulated several months ago. Some 512 returns were received which represented 26 countries. The survey was conducted by W3BWZ, W5AO and WA8ZDF. Results available are:

	Yes	No	% in Favor
Should Rule 9 of the DXCC Rules be Changed?	184	234	44.0%
Should ARRL Offer A Separate DXCC only?	341	141	70.7%
Should ARRL Offer a Separate Phone DXCC?	353	126	73.7%

ADVISORY COMMITTEES

Thought this month we would cover some basic information regarding ARRL Advisory Committees.

An advisory committee is composed of qualified amateurs to undertake studies, review proposals, and to communicate advice, recommendations and expertise from the League's membership to its management in various specialty areas of amateur radio.

An advisory committee is established by the ARRL Board and membership is limited to fewer than twelve members. Candidates for committee membership may be nominated at any time and requires three sponsors, each of whom must be a full member of ARRL. Each committee will have one member from the Board of Directors acting as a point of contact between the committee and the Board. There will also be a member of the Headquarters staff designated to provide staff assistance. The identity and addresses of advisory committee members shall be routinely carried in QST, to facilitate direct member contact. Space shall also be allocated in QST, as appropriate, to report upon the activities of the committee.
Correspondence to advisory committees can be sent to League Headquarters and will be distributed to the committee members.

FRESNO 75

Pardon our blooper. Kind of hard to tell from the last issue the real date for Fresno '75. Put the blame on the gremlin. Anyway, save April 19-20 as the real dates.

ARKANSAS DX MEETING

The Arkansas DX meeting will be held December 7th at Hot springs. Contact W5QKR for details.

MOST WANTED COUNTRIES

The DX News-Sheet recently conducted a poll of most wanted countries. 158 replies world wide were received and are the top 20 in order of the most wanted:

3Y	Bouvet Island
VP8	South Sanwich Island
BY	China
YI	Iraq
8Z4	Iraq Neutral Zone
XZ	Burma
AC3	Sikkim
VK9	Mellish Reef
70	Kamaran Island
AM7	Tokelau Islands
HKØ	Bajo Nuevo
IS	Spratly
	Geyser Bank
VKØ	Heard Island
VP8	South Georgia
	Blenheim Reef
HKØ	Malpelo
KP6	Kingman Reef
70	South Yemen Republic

Others, in order, were Juan Fernandez, Fanning Island, San Felix Island, Glorieuses Is., Albania, Cocos Is., Taiwan, Revilla Gigedo, Campbell Is., and Annobon. DXpeditioners, make your plans.

HOW TO

In the coming months we hope to briefly cover various aspects of working DX. This month we will cover the sources for DX information. These will include:

On the air nets
On the air DX bulletins
DX clubs
DX news publications

Probably the simplest way to gather DX information is to listen around on the bands. You will hear people talking about what they have worked and some information about when and where. Several organizations conduct nets wherein members exchange information and perhaps even have DX stations check into the nets and those on frequency can get a QSO. Such nets might be the Pacific DX net and YL-SSB net.

A couple of the DX clubs in California conduct DX news bulletins. The Southern California DX Club Bulletin is on SSB on Thursdays GMT at 0300 at 14.265. The Northern California DX Club Bulletin is on CW at 14.-002. Secondary transmission is 1800 GMT on Sundays and the primary transmission is on Mondays at 0200 GMT. There are probably other bulletins available around the country.

A good source for DX information is a local DX Club. These are people with one interest --DX. You can get information at club meetings. Each club probably publishes a DX Bulletin which would have information You can also get to know people in your area chasing DX and either form at phone calling network or join in on a repeater group if the club has one in operation.

There are several DX orientated publications put out on a frequent basis. One of these can be a great aid and provide a great deal of information. Publication information I have currently includes:

West Coast DX Bulletin, $10.50 per year; 77 Coleman Drive, San Rafael, CA 94901; Long Island DX Association Bulletin, $6.50 per year; P. O. Box 73, Coram, NY 11727. Geoff Watts DX News-Sheet; 62 Belmore Road, Norwich, NOR 72-T, England DXers Magazine: RFD 1 Box 161-A, Cordova, SC 29039.

Next month we will try to cover some simple hints on how to fill out a QSL card, supposedly a simple task in which not much can go wrong.

Thanks for information to the West Coast DX Bulletin, QSL Managers Directory, DX News-Sheet and LIDXA.

•

New DX award

The other day, some of the "Worldradio" staffers and editors got together for lunch. They were talking about that they would like to do something "special" for the "special" who subscribe to WORLDRADIO. Everybody threw in some ideas and we came up with an operating award. It was decided that the award should be meaningful, significant and difficult enough that winning it would be quite prestigious. We came up with the following award:

"Contacting the People of 100 Nations"

Here's how it works. To qualify, one must contact an amateur radio operator in 100 different sovereign, self-governing nations. The criterion for "nation" status shall be the issuance of their own postage stamps.

Possessions of a nations count only toward credit for the parent country. (Example: KG6-Guam is not a country, it is part of the USA).

The contact must be with a national of the country. (Example: KA does not count for Japan, it must be a JA).

Contest QSOs do not count.

Your own location does not matter. This is a people-to-people award and the idea is to communicate with the people of 100 nations. You could, for example, make the first 75 contacts from your home in Minnesota and the other 25 during a vacation in Sweden.

The location of the other station does not matter. If you work DL1CU maritime mobile off Australia, you have talked to a German. The idea is to talk to the people of 100 nations.

Starting time for this award is 0000Z, 1 January 1975. Endorsements will be issued for over 100 nations and endorsements will be issued for band or mode.

QSLs must be in your possession. Only a list showing call, name of operator, band, time, date, need be submitted. Selected QSLs may be called for. Certificates will be awarded at no charge.

(please turn to page 9)

DEC. - MUF From Burbank, CA

GMT	AFRI	EURO	SOAM	ASIA	SPAC
01	10.2	9.5	12.3	15.1	18.9
02	7.5	9.1	11.1	11.6	14.9
03	6.6	8.5	11.2	9.6	11.9
04	8.4	7.7	11.5	9.2	11.4
05	8.8	6.7	11.6	9.2	10.8
06	9.1	6.2	10.8	10.2	10.6
07	9.6	7.3	10.2	10.0	10.6
08	10.0	8.8	10.3	9.7	10.5
09	10.2	10.1	11.9	9.4	10.1
10	10.0	10.4	12.4	9.5	10.3
11	9.3	9.8	10.1	10.0	11.3
12	8.9	8.9	9.1	10.0	11.5
13	9.7	8.7	12.2	9.0	10.2
14	12.1	10.4	16.2	8.3	9.6
15	15.2	13.1	20.1	9.7	12.0
16	17.7	11.8	22.3	11.5	15.1
17	18.3	10.1	22.9	11.0	14.0
18	20.1	8.7	23.0	10.5	13.9
19	20.7	7.8	23.2	10.8	15.5
20	19.1	7.5	21.3	12.6	17.6
21	17.1	7.5	22.0	13.9	19.0
22	15.0	7.6	21.4	16.5	21.5
23	13.4	8.0	18.7	18.4	22.4
24	12.1	9.4	15.1	18.5	21.7

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

repeaters

ARGUS adopted by repeater council's unique statewide emergncy network

by Howard Kelley, K4DSN

The Florida Repeater Council has adopted and begun developing an unique statewide emergency repeater system. The project is dubbed ARGUS after mythology's ever-vigilant million-eyed giant.

The project has three distinguishing features:

..A statewide 911 emergency autodial system exclusive of commercial telephone company service.

..A statewide emergency-only repeater input frequency that would take priority of any other repeater input signals.

..A statewide repeater linking system to be used in times of emergencies and emergency drills.

ARGUS is designed to cope with everyday traffic-type emergencies as well as the much larger wide-area ones. It is a short and long range effort that is expected to take several years to fully complete. However, some elements of the ARGUS plan such as the 911 Auto-dial should be operational on a large scale in a short time.

The 911 Auto-dial system will permit mobiles to go into any area of the state and summon emergency assistance by simply dialing 911. The amateur operator would not need to know any repeater's particular autopatch access method since the 911 dialing would be exclusive of the normal autopatch functions. The 911 Bell Telephone emergency system does not have to be available in a particular city either. The 911 decoding will be accomplished by the ARGUS-designated repeater and connected to rapid dialing auto-dialer to provide direct connection to the appropriate public safety agency.

The ARGUS plan was proposed to the FRC by the combined Jacksonville-area repeaters. The plan was adopted for development by the FRC at the Orlando Hamfest in June.

(Florida Skip)

●

FM operating procedures

by Joe Handley, K3LLL

In the area of procedures slowly evolving on 2 meter FM, there is really much that is good. But there are large areas where improvement is greatly needed.

1. One call at a time is enough. You are on a party line and usually if anyone listening knows where the person you are calling can be found they will call and let you know (a good procedure).

2. State the call of the station you are calling and your own call once, or perhaps a second time with phonetics if there is any doubt, slowly and distinctly. Do this also for Auto-patch tape logging, as someone may have to transcribe that tape and that someone may be you.

3. Keep transmissions brief - say what you have to say as concisely as possible - make only one point per transmission - ask only one question.

4. Stand by between transmissions at least 2 or 3 seconds to allow for breakers.

5. Listen before you transmit - check your frequency setting before you transmit.

6. If operating on a repeater, keep it as short as practical. Don't hog the machine. If you have a good rag-chew going on, pause every three minutes and ask for breakers.

7. If you do take a repeater on a break, perform your business and return it to the original users.

8. If someone breaks and asks to use the repeater to call someone, let them. That's the primary reason for repeaters, to maintain close contact between area hams.

9. All of the above, on a limited basis, can also apply to simplex operation.

As food for thought, I recommend the Ten-Code for those who recognize this operating aid for what it can be worth. Ten signals were formally used in this area in the early days but later comers to amateur FM poked fun and the practice was discontinued - a shame because the Ten-Code lends much needed brevity to 2 meter FM - and these codes were designed for FM use. If they work for many police and fire departments - and their radios work fine for us - why not their shorthand as well. Anybody got any better ideas?

●

The tail of the squelch, or, how long between wags?

by Orin Levis, W6DZK

Short-fused timers on repeaters are destroying the art of conversation. Watching that invisible clock with your mind's eye can detract from the continuity and flow of thoughts, and leads to dialog like this, heard recently:"you on the vertical?" - scraak (this is the sound of the squelch tail); "no" - scraak; "oh, you're on the big beam" - scraak; "no" scraak; "signals are too good for the mobile" - scraak; "yes" - scraak; "yes, what?" - scraak; "what you just said" - scraak; "I forgot what I said" - scraak:

This type of conversation is akin to some modern music - they don't know how to end it, or where to go next, so they just fade it out while endlessly repeating something inane.

Although the rules permit up to three minutes, some repeater committees feel that mobiles should have almost instant access to the repeater in case of emergency. Two minutes, one minute, or even less -- you would almost have to rehearse your emergency statement to avoid being cut off in mid sentence.

Imagine the Admiral standing on the poop deck amid smoke and flame. He picks up the mike and shouts, "Damn the torpedos - full speed a -" scraak. (if I were the engineer, I would intepret that as a--stern. History might have been changed.)

Or, in a more modern war (won by Mc Hale's Navy), the Lieutenant JG, standing in a PT boat and holding the mike, screams "Enemy plane at 2 o'clock!" scraak; "No, wait! It's more like 20 minutes after 2"- scraak; "no-let's see, the big hand is-" -scraak --- BOOM!!

Of course, the average, run-of-the-freeway, repeater-user normally is not that pressed for time, and if he is cut off (or cuts himself off to save face), the consequences usually aren't too serious. However, repeater committee members are reputed to believe that Murphy (of Murphy's Law fame) is an optimist.

Sometimes there are more squelch tails than conversation. Sooner or later the tails will blend together and completely take over. Then we will have to devise a method of modulating the squelch tails in order to communicate -- probably will need laser techniques to get the tails wagging coherently.

Then - along comes the Committee with a new timer (Wow! This could get pretty complicated- I think I'll say I'm destinated and sneak out of here).

Editor's Note: There is a message in there somewhere. I think he is in favor of longer timers on repeaters. We think that - "scraak".

●

From Hertz to . . . what?

by Norm Brooks, K6FO

You will recall we recently "corrected" our technical language when we adopted Hertz as meaning cycles per second. Not only does Hertz provide the precise meaning of cycles per second, but it serves to honor one of the original founding fathers of electronics, putting him in the limelight with Volta, Ampere, Ohm, Henry and others.

I recently came across an article in a technical journal reminding us that magnetic sound recording was invented by the Danish physicist Valdemar Poulsen. He applied July 8, 1899 and was granted U.S. patent 661,619 on November 13, 1900. Now with this bit of information we can take care of another injustice, and provide additional technical accuracy, just as was done with Hertz.

Right now, we run our tape recorders at various speeds, such as 3-3/4, 7-1/2 or 15 inches per second. We all know some of our more careless brethren will say "that tape was recorded at 7-1/2", without saying inches per second. Horrors! We must correct such careless language, and do something for Valdemar as well. I propose the unit "Poulsen" represent the magnetic recording speed of one inch per second. Thus "that tape was recorded at 7-1/2 Poulsens" would be a technically correct, meaningful statement.

But wait: Aren't we going metric? You scientific purists will argue that one Poulsen should represent a recording speed of one centimeter per second. So be it, and my 7-1/2 inch per second recording speed can be scientifically reported as 19.05 Poulsens.

What say, gang, do you agree? Let's hear it for good old Valdemar Poulsen!

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by Bill DeWitt, W2DD

The publisher of WORLDRADIO is extremely pleased to announce your new SSTV editor.

Bill DeWitt, W2DD, who takes over the SSTV column starting with this issue began his Amateur radio career in 1923 with the call 8BRD. A commercial ticket-holder at seventeen, he spent three years in broadcasting before attending Rensselaer Polytechnic Institute. After R. P. I. he began what turned out to be a 40 year career with the Eastman Kodak Co. Bill recently retired from his post as Technical Coordinator of Kodak's Photographic Technology Division.

Originally a code operator, Bill now devotes most of his amateur radio hours to SSB and SSTV. He has pioneered in color slow scan picture transmission. September 1972 CQ Magazine carried a cover picture and feature article describing the first inter-continental (Europe and Africa) color slow scan transmissions via his station W2DD. He has now accomplished two-way color slow scan contacts with four continents.

Another of Bill's published articles (CQ Magazine, October 1973) deals with storage tube scan conversion of SSTV for display on a convention TV set. We're certain that you'll be reading more about scan conversion in the SSTV column in the months ahead.

In addition to his written publications, Bill's photographic efforts have appeared on several magazine covers. He is a member of the society of Photographic Scientists and Engineers, Antique Wireless Association, and the Q.C.W.A. His collection of operator licenses includes the Amateur Extra Class, Radio Telephone First, Radio Telegraph Second, Ship Radar and Aircraft Radio Telegraph Endorsements.

Since SSTV is only part of the amateur television picture (no pun intended!), Bill will also welcome correspondence on A5-TV happenings for coverage in his column. So whether you are slow scan or real time oriented, why not drop a line to W2DD and let him know what you're doing with these fascinating phases of amateur radio communication? Please address your letters to W2DD at 2112 Turk Hill Road, Fairport, NY 14450.

This is my first crack at a monthly column for Worldradio News. I hope I can entice some of you readers into sharing your projects with the rest of the amateur radio world.

It's amazing how many common interests you find with others when you get into the nitty-gritty of really doing something instead of just talking about it. So, whether you're interested in slow scan or real time amateur TV, let's hear from you --- and don't forget to send along some pictures!

Nick Hauck's parting shot in this column regarding what are we going to do with SSTV was very much to the point. Creativity comes in several flavors and all amateurs are not creative. However, we certainly do have creative designers and creative users in our midst. (We also have a lot of just plain users, but don't put black hats on those fellows, their interests are just different!)

Now let's get back to the creative designers. There aren't too many of them in our total amateur population, so we're darned lucky to have the talents of a coterie of really clever designers working on the problems of slow scan. Cop MacDonald, WØORX, who started it all, Don Miller, W9NTP; Robert Taggart, WB8DQT; Robert Suding, WØLMD; Robert Schloeman, WA7MOV; Robert Stone, W3EFG; Ed Arvonio, W3LY; and Mike Talent, W6MXV, are some of the names that come to mind when you ask, "Who's doing the work on the cutting edge of new technology

for amateur slow scan?" I'm sure that there are others who are doing fine work in this field, but let's face it, as our technology gets more and more sophisticated, it requires a greater depth of knowledge to come up with a brand new idea. These creative designers deserve a lot of credit!

Creative users are something else. We have a much higher number of these people in our amateur radio world. As in other fields of endeavor, once an idea or capability is known to exist, the users for it are immediately expanded in some exponential fashion. A prime example would be the myriad of applications for computers. I'll get back to the creative users later.

Why all this talk about creativity? Didn't Nick Hauck cover all that a month or so ago? Well, I'm beating on it a little bit more because I think that we must address ourselves to two problems.

First, how to improve the capability and effectiveness of SSTV; second, how to make more effective use of the existing capability of the system. The first item is a job for the creative designers, the second item remains for the creative users to tackle.

As I remarked earlier, we certainly are lucky to have excellent design talent being applied to such problems as scan conversion, keyboard graphics, sharpness enhancement, improved phosphors, etc. It was reported on the Slow Scan Net recently that Don Miller is currently working on a scan conversion system to permit display of a color slow scan transmission on a conventional color set. This is GREAT! And, there is always more coming from Don and others.

John Wilson, VK3LM, has a re-phosphored tube with a new phosphor mixture that is not excited by ambient light. The new phosphor yields brighter, easier-to-see pictures under daylight conditions. Ed Arvonio's design of a circuit to stabilize vertical sync and reduce unwanted signal problems has delighted many users including yours truly. There's lots of action in the design area!

Let's talk about the creative users again. We are (at last!) beginning to see more pictures and "live" shots on our slow scan screens, but there is still a predominance of graphics. Well, I agree that graphics have their place, but the fact is that you can convey information such as type of rig, antenna, etc. much faster by voice than by SSTV. (Chance to save energy -- Wow!)

But when you are talking with some fellow in a foreign land, wouldn't you rather see his home, his wife, kids, or the chap himself on your screen -- rather than "Rig here is a Little Gem Mark 2"?

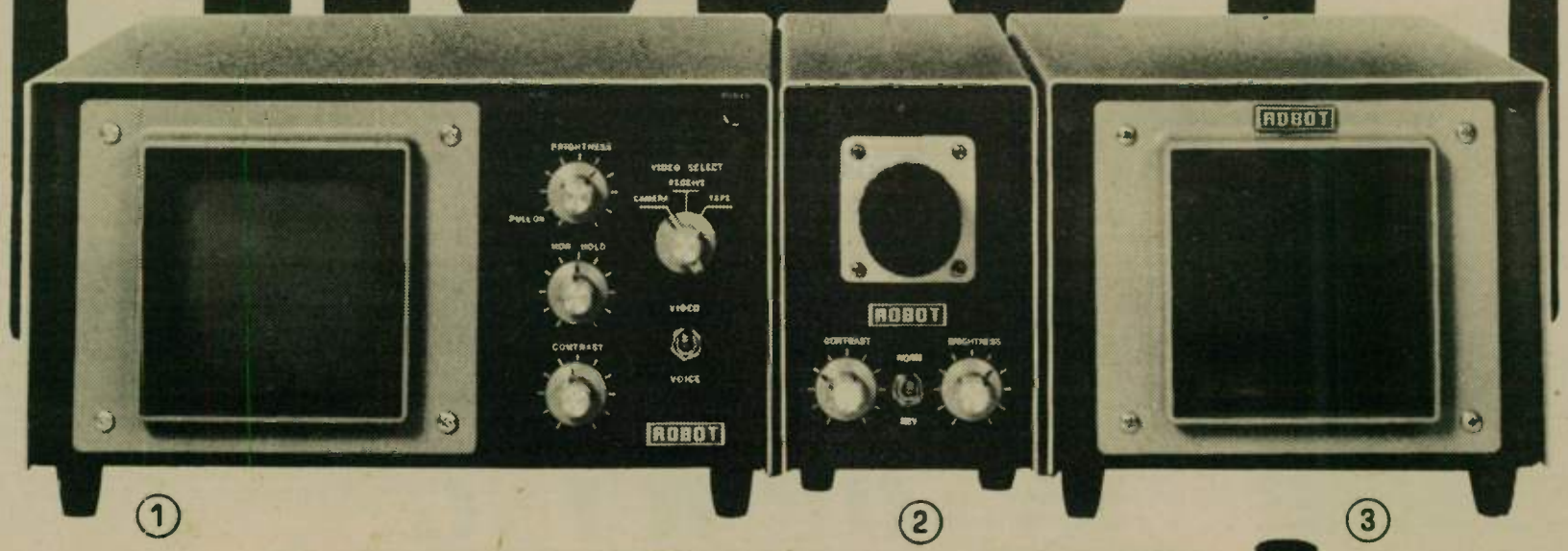
Speaking of pictures, the accompanying photos of "Mrs. W2DD", or Peggy, make an interesting pair. I think you can tell which is the original, but the other is a playback of my transmission to Frank Pardy, GW6DZJ. You can see that Peggy survived the round trip to Wales in pretty good shape! If your wife yearns for travel, send her to Europe, Africa, or the continent of her choice by SSTV, it's very inexpensive to do, and she won't even need a passport.

Cop MacDonald has tried hard to stir up some innovative uses of slow scan, and once in a while one does run across something unusual being transmitted. If you know of anyone who is using SSTV to send medical information, test data, diagrams or other exceptional material, please let us know so we can let the world hear about it.

In the commercial field, there are some rather unusual applications of slow scan. For example, Joe Hawkins of ROBOT Research recently told me about a company that is monitoring their smokestack with an SSTV camera. Tape recordings are made periodically to provide a record of the company's conformance to ecological standards! In another slow scan application, ROBOT is providing an SSTV system for transmitting diagnostic information to a medical center monitor over telephone lines from nursing homes.

(Please turn to page 8)

ROBOT



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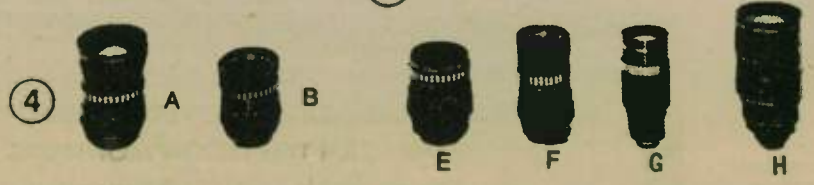

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F	50	1.9	42	$ 55
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H	20-80	2.5	60	$195

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Getting started in satellite communications

How and When to Work Through
OSCAR 6 & OSCAR 7

With the launch of OSCAR 6 on October 15 1972, amateur satellite communications became readily available and practicable for large numbers of radio amateurs around the world.

Over 2,000 are already participating in this newest phase of amateur radio, and several hundred more are joining in each month. OSCAR 7, expected to be launched 29 October, this year, should be even more accessible. This article presents the essentials of getting started: equipment requirements, frequencies, and perhaps most important, how to track OSCAR and where to obtain orbital information so as to know when and where to look.

OSCAR 6 is a linear translator, functioning very much like a receiving converter. It listens over the band 145.900 to 146.000 MHz, and down-converts to 29.450 to 29.550 MHz. Within this band, what you put in on two meters is what you hear on ten meters; if you transmit CW, you hear CW; if you transmit upper sideband, you hear upper sideband. Because of OSCAR's altitude, you will have a maximum two-way communication range of approximately 5,000 miles when properly positioned -- not bad for a low power ground station on two meters! Although most OSCAR users have small beams, OSCAR has been worked successfully from mobile stations in automobiles, aircraft and even a sailboat.

OSCAR 7 works the same way, except that it has two translators aboard, one for two-to-ten meters, the other 432 MHz in, 145 MHz out. Table 1 gives specific frequencies for OSCAR 6 and OSCAR 7 operation. With OSCAR 6, if you transmit on 145.950 MHz (neglecting Doppler), you should hear yourself through the satellite on approximately 29.500 MHz (actually around 29.494 MHz, since OSCAR 6's crystals are 6 kHz low); if you transmit 20 kHz lower, you'll hear yourself 20 kHz lower on ten meters.

OSCAR 7's two-meter input and ten-meter output work in exactly the same way as OSCAR 6, except that each is 50 kHz lower in frequency (see Table 1). The 432 MHz translator aboard OSCAR 7 is a little different, since it employs frequency inversion; if you transmit lower sideband, you'll get upper sideband back!

In this article, we'll be using the term OSCAR 6 or OSCAR 7 interchangeably; where there is a difference, the text will make the necessary distinctions.

OSCAR's transmitter power is quite low, and must be shared among all the stations using the satellite at any one time. To work through the satellite successfully, you have to be able to hear it well; beyond any doubt, the greatest single cause of failure in OSCAR communication is inadequate receiving capability. During any OSCAR orbit, a number of stations can be heard calling CQ, often quite loudly, completely unaware of other stations calling them. If they took a little trouble to improve their receivers, everyone would benefit!

Actually, a good receiver for OSCAR is quite simple to arrange. On two meters, any good low-noise converter with proper front-end alignment, should suffice. Check yours with a noise generator or other test equipment to be sure it is giving you its rated performance. On ten meters, experience has shown that many receivers, even the most expensive, can benefit from a simple low-noise MOSFET preamplifier, adjusted for the OSCAR output band, such as the one listed in the bibliography. If you're not using a good preamp, you might also gain satisfactory performance by realigning your receiver's ten-meter circuits for optimum performance at 29.5 MHz.

Many amateur-band receivers, such as the Collins S-line, come from the factory set up for peak performance at 28.5-28.7 MHz their sensitivity at 29.5 MHz is often terrible. A few twitches with an alignment tool, and the OSCAR-band sensitivity becomes quite satisfactory, at some cost, however, to the low end of the band.

Spend some time listening to the satellite. Most any old clunker of a receiver can hear a few of the strongest stations, but this is not good enough. You should hear both sides of each QSO. When the satellite comes within range, your received noise level should noticeably increase, because you will be hearing the retransmitted noise in the satellite's receiver!

The beacons listed in Table 1 are another good guide; you should hear the ten-meter beacon of OSCAR 6 or OSCAR 7, and the two-meter beacon of OSCAR 7, clearly whenever the respective repeater output is audible. These beacons are actually quite important, since they transmit telemetry information on how the satellite is doing. Most of the time, they will be transmitting 3-digit numbers in conventional CW, interspersed with OSCAR's traditional "HI-HI" identification. Occasionally, the OSCAR 7 beacon may also transmit TRRY.

By all means, copy the telemetry information down and send it along to AMSAT as received. No further data reduction is necessary on your part; AMSAT will do the rest, and you'll be helping to keep the satellite going for as long as possible. Please include the date and time of receipt, and the orbit number if you know it.

After you attain satisfactory reception -- (an official OSCAR QSL card is sent for all reception reports) you're ready for the next step: reception of your own signal, retransmitted through the satellite. OSCAR is designed for CW and SSB transmissions; although the satellite , as a linear translator, will also repeat AM and FM, they are highly inefficient uses of the satellite's shared power because of their relatively high average powers. Also the AM or FM station is not too likely to gain an answer, since everyone's receiver is set up for narrow-band CW or SSB.

To work through the two-to-ten meter translator, an effective radiated power (ERP) -- transmitter output minus transmission line losses plus antenna gain -- of approximately 100 watts is required. Under ideal conditions, it's been done with as little as 10 watts ERP, but 100 watts ERP is the recommended level. The 432 MHz translator requires approximately 400 watts ERP at that frequency. If you need more than this to hear yourself, that is proof positive that your receiving system needs more work! As an example of this calculation, a transmitter having 50 watts output into a transmission line having 3 db loss, and an antenna having 6 db gain would give you 100 watts ERP, the correct level at 145 MHz.

Actually, if you use much more than the recommended ERP levels, you may well overload the satellite's translator, causing other signals to be reduced in strength and quite possibly disrupting other contacts in progress. Because of this FCC has interpreted overloading the satellite as a violation of section 97.67 (b) of the Rules. AMSAT urges all OSCAR users to monitor their own signals through the satellite, and to cut down their power if their signal strength is excessive.

A stable, well-calibrated VFO or VXO is a great convenience, since most OSCAR users answer calls at or near the caller's frequency -- the better to hear their own signals while working. If you don't yet have one, don't let that stop you; procure a crystal for one of the input ranges in Table 1, and listen for your signal at the output frequency derived from the relationships given for the same table. Bear in mind that these output frequencies are approximate, and will change during each orbit because of the Doppler effect. Tune around a bit, within the Doppler tolerances given in Table 1; you'll soon catch on to the way Doppler works.

With the two-to-ten meter repeater, your signal will come back higher in frequency than it is "supposed to" if the satellite is moving toward you, lower in frequency than nominal if the satellite is moving away from you. The OSCAR 7 432-to-145 MHz repeater, because it employs frequency inversion, will give exactly the opposite effect. With this repeater, your signal will come back at lower than nominal frequency with the satellite moving toward you, and high with the satellite moving away from you. Doppler effects of signals other than your own will be somewhat more complex to predict, because two relative velocities are involved in each case. In no case, however, will the received frequency be further away from nominal than the Doppler tolerances given in Table 1.

For receiving purposes, most stations use 10-meter beams. As with receivers, however, trap tribanders and similar arrays can be misleading, since they are commonly adjusted for best results at the low end of the band and are frequently disappointing at the OSCAR frequency unless re-tuned. The usual monobander is broad enough to be satisfactory; check and see. Quite satisfactory results have been obtained with less than a beam; Fred Merry, W2GN, uses a mobile whip for his automobile "DXpeditions" via OSCAR, and many stations use dipoles and other wire arrays. For best results at low elevation angles, however, when the real DX is worked, a beam simply cannot be beat!

For the VHF and UHF frequencies, experience has shown that beams of four to eleven elements (9 db to 14 db gain) give the best results. Larger arrays, being more directional, are more difficult to keep properly aimed at the moving satellite than beams of eleven or fewer elements. Again, if you cannot put up a beam, you still can work through OSCAR if your transmitter puts out enough power; the author once worked 35 stations with 40 watts and a window whip, and 50 more with a "Squalo". I presently use a four-element Yagi on two and two-element Yagi on ten.

In reading through the literature on OSCAR, you will constantly come across references to circular polarization and azimuth-elevation rotators. In this writer's considerable experience with OSCAR, both are desirable but not necessary features. Without circular polarization on two meters with OSCAR 6, your signal will encounter fading due to Faraday rotation; the OSCAR 7 receiving antennas are designed to make this unnecessary. Circular polarization at ten meters is for most amateurs easier said than done, because of ground reflection effects. If you can put up a cross-Yagi or helical array, by all means try it, but don't think you really need one. With linearly polarized antennas, your signal will fade up and down as your polarization is rotated in the ionosphere. You may use either vertical or horizontal polarization; it makes no difference.

If you do use a beam antenna and do not have azimuth-elevation rotators, it is recomended that you mount the beam to point upward approximately 20 to 30 degrees from the horizon, and leave it there, rotating it in the horizontal plane as needed. With a beam pointing toward the horizon, you may encounter difficulty in working OSCAR passes of higher elevation: 20 to 30 degrees fixed elevation has been found by many users to be an excellent compromise, making further attention to elevation unnecessary.

(Continued in next month's issue)

**Official bulletin NR 505
from ARRL Headquarters
Newington CT October 17, 1974
to all radio amateurs**

The 1975 ARRL International DX Competion, to be held the first and third weekends of February and March 1975, will feature several rules modifications recommended by the ARRL Contest Advisory Committee. Single operators will be permitted entry in any of three categories, all band, of high band 20-15-10 meters, or low band 160-80-40 meters. On a trial basis, a one weekend DXpedition category will appear in the December issue of QST. Please help spread the word.

Good guys

For OSCAR 7, space-qualified components and test equipment worth thousands of dollars were donated by a number of aerospace firms including:

RCA, Amatek-Hunter Spring, Hi-Shear, Eimac, Yellow Springs Instruments, Microwave Semiconductor, Communications Transistor, National Semiconductor, J.W. Miller, Hewlwtt-Packard, Fluke Manufacturing, Wide-Band Engineering, and Savoy Electronics.

In addition, surplus satellite hardware, such as solar cell panels and nickel cadium rechargeable batteries, all left over from other NASA space projects, were made available for OSCAR.

160 de W1BB

OK1MCW, Martin Kumpost - ex OL5ANJ - specializing on 160 meters, has done some most excellent work with QRP!! Note that VK6HD QSL!!! (1.-r.) HM IC electronic keyer, 160 converter, E-10-L receiver, HM 10w xmtr and swr meter.

VP8NP/Ian Bateman (G3ZKH) opr on barren GALINDEZ ISL. ANTARCTIC 2 yr. Scientific EXPEDITION 65S/64W making IONOSONDE readings. Operates "Between Tests", on 160 meters!! 1.864 and 1.827 MHz, giving many this extremely rare 160 country, including W1BB's 117th. Uses balloon and dipole ants w/RA17 rig. Is well known member famous "White Rose" radio club. Cheers and Congratulations, Ian - VFB!! (QSL via G4BNH/Frank, who is doing VFB "Liaison" job!!)

Very interesting!

FCC Commissioner Robert E. Lee, addressed the banquet gathering at the QCWA national convention in Orlando, Florida, on October 26, and in the process disclosed recommendations of the amateur subcommittee (W3OKN, W4BW, K4GTS, W1RU) making initial preparations for the 1979 World Administrative Radio Conference:

- -Return of the 160-meter band
- -Eliminate sharing in the 80 meter band
- -Expand 40 meters and eliminate sharing with hf broadcasting
- -Expand 20 meters and eliminate sharing with the fixed service
- -Expand the 15 meter hand by 100 kHz
- -Establish new amateur bands at 10.1, 18.1 and 24 MHz.

These are only recommendations, and only in the initial stages of planning. Almost certainly, some of the other subcommittees will propose expansion for their services, and there is bound to be headon conflict. It will be a good many months before these matters are threshed out. Meanwhile, note this substantial expansion of amateur bands proposed by the Government subcommittee working on the project.

maritime mobile

by Bill Yost, WA6PIU

Maritime Mobile and the Law

The legal ramifications of operating maritime mobile were first impressed upon me when, as a fairly new amateur, I checked into a 75 meter phone net signing maritime mobile, region 2. While I was immediately acknowledged by net control, another station indicated that I was mobile 6. Not too quick with the hint, I reasserted my position as maritime mobile, region 2. At that time I was sailing from San Pedro to Catalina Island, which gives an amateur five whole miles of region 2. Well, as it turns out, maritime mobile operation within the regions is illegal on 75 meters. This means that you can operate 75 meters twelve miles off California or 12 miles off Hawaii, but anywhere in between is a positive no.

I always assumed that a shipboard station would certainly have the same operation privileges as a base, or land mobile station. This is why I never noticed the fine print restriction in the FCC regulations. Regions I and III are even more limited in frequency allocations. A recent letter from Douglas Byrne, G3KPO, affirms the fact that U. S. amateurs are not unique in MM restrictions. In England the red tape to operate aboard is beyond belief. To quote:

"WA6PIU de G3KPO.

Dear Bill,

Have just been reading my first copy of "Worldradio News", and in particular, your column. This was of special interest to me as my two leisure activities are amateur radio and sailing.....

Thought you would like to know that here in G-land, we not only have to use a Crystal-controlled transmitter when working Maritime mobile, but also have to inform the authorities when applying for a MM license of the exact frequencies we will be using!

It is also necessary to ask for the license to be modified somewhat to suit the conditions on a small yacht, otherwise one has to listen-out on the international emergency frequency of 500 kHz for three minutes every half-hour.

Of course, its 7 MHz and above, and in Great Britain, the power-input to the PA is limited to 150 watts (or alternatively, on SSB it is 400 watts PEP power out).

Consequently, there are very few G-stations calling MM - as you can well understand.

In my own particular case, I have a small B2 transmitter-receiver which is crystal-controlled and works from a six-volt supply, but is CW only. It was the small suitcase spy-set dropped behind the Allied lines in occupied Europe during the war, and is obviously ideal for code work. However, when it comes to sideband, this is another kettle of fish, as so few modern transceivers are capable of being crystal-controlled - at least, not without extensive modification. My own Swan Cygnet has a 120volt DC input, and is self-contained, so will have to get cracking with the soldering iron----and with much crossing of fingers, and extensive trepidation!

Anyway, that's how it goes here, and would appreciate a few lines, as there is so little MM this side of the pond.

With best 73's
Douglas Byrone, G3KPO
Council Member RSGB
Hon Sec. Wireless Preservation Society.

PS- Had a month in CA last year, and hope to be over again next summer, visiting vintage radio collectors and museums - hi ! "

Recently in this column, we discussed the hassel involved when operating as a passenger. We received several comments from shipboard radio officers offering advice. I'm not sure that we resolved an exact procedure other than the fact that there were several avenues available to obtain permission.

I've always felt that any law is based on common sense. However, the books are full of irrelevant, ridiculous restrictions which may never be changed unless effort is made to do so.

As maritime mobile operators, we are up against the same problem, except that international law is involved.

The German ops are also having their troubles. Recently we received a letter from Arno, DK4BP, net control for the International Maritime Mobile Radio Club. Apparently, they are involved in a fight with the Federal Transport Ministry of Bonn which prohibits executing the hobby within their D-West group. (I assume this is their fleet.) Hopefully, I can get some more information on their struggle so we can solicit help.

As maritime mobile ops we are unique, since we operate as international stations. Perhaps this is the way all amateurs should operate. Instead of limiting ones concern to the local repeater issue or the points you made in the last contest, look at yourself as a special entity in a global communications facility. With the international WARC soon meeting in Geneva to decide the future of our service, such concerns made now, may make the difference in our future welfare.

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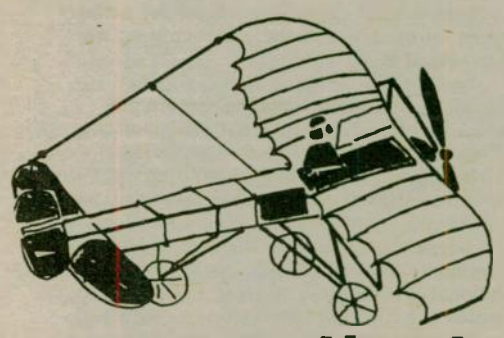
Aeronautical Mobiling

by Ronald Patterson, WB6VIE

In the performance of my job, I am often required to travel extensively. I visit many Naval Air Stations and ships, often for a longer period away from the home QTH than I like. As often as possible, I try to arrange for a small plane as opposed to an airliner. It's cheaper for the taxpayers and satisfies my love of flying for one more short period of time.

Recently, in company with my trusty pilot assistant, Bob Beever, I flew to NAS Lemoore, near Fresno. Strapped to my side, of course, was my trusty six-channel Wilson, which Karl at Electronics Emporium had sweet-talked me into. Climbing out from Mongomery Field, I noticed that the non-sensational Wilson Handi-talkie had become a veritable tiger! I energized the whole thing, pumping at least a gallon (1 watt) from the rubber ducky whip, activated the Sandra repeater and had a short QSO with W6WK, another assistant of mine, mobiling slowly to work. Zane reported full quieting, no less! I was not able to take advantage of this new phenomenom, although elated with my success, until north of Los Angeles. I was far too busy watching out for other audacious Cessnas and ensuring that my trusty

(Turn to page 33, column 4, please)



aeronautical mobile

by Vern Weiss, WA9VLK

A local radio club recently lost out on a chance to assist the Civil Air Patrol on a search mission for an apparent drowning victim.

It seems that CAP group attempted to organize ground-to-air communications, however the only means available was that of the local CB radio club. So, "Budweiser Bill" and Lonesome Polecat" and their walkie-talkies were pressed into action. Because of other Class D operators breaking in and trying to get into the action, the searchers were dissappointed in the rather ineffective radio system. Some searchers were heard to comment that the radio operators were more of a hindrance than anything else.

Meanwhile, the local amateur radio club sat fat and happy with their repeater and many portable handi-talkies, proven skill in handling efficient communications and lack of knowledge about the happenings taking place.

Stop reading right here and go to the phone, call information and get the telephone number of your state Wing of the CAP. Call them and ask for the CAP Squadron Commander for your area and let him know that the Radio Operators of FCC Part 97 are available whenever needed.

While on the subject of the Civil Air Patrol, I am afraid too many give the CAP little thought; and they certainly deserve a lot. The CAP holds great respect for amateur radio operators and offers unique opportunities to amateurs in the construction, maintenance and operation of their nationwide emergency radio communications network. While volunteering your local radio group's services, ask the Commander about CAP and you will find him most enthusiastic that you are an amateur radio operator. And if you are a licensed pilot ...WOW!

When one goes down and his flight plan expires, it is the Civil Air Patrol who becomes concerned. You, as a pilot need the CAP and the CAP very definitely needs you, the amateur. Please.

Interesting developments from General Aviation Electronics, Inc. (GENAVE) have occurred recently. When anyone who flies thinks of GENAVE, he thinks of Nav/Coms, transponders and lots of other avionics goodies. When he who flies is an amateur radio operator, that list includes some mighty fine VHF ham gear built to the same aviation specifications and quality control. Effective 1 November, GENAVE will change its marketing procedures to direct factory sales - only. This is great news due to the fact that prices are being cut. Yes, cut! Some models as much as a hundred dollars. Good for GENAVE, right? So what, you say? What if I said that GENAVE, producers of aviation electronics equipment, has R & D in progress for high-frequency SSB gear? Ah-Hah! Now you can see where the bear stepped in the buckwheat. Start planning those mounting brackets for your Stinson.

Did someone mention 1 November? Don't forget, effective that date also, is Federal Aviation Regulation 61.57 requiring biennial flight reviews for those acting as pilot in command of any aircraft. It's not a bad idea to take a check ride every once in a while anyway. The weekend pilot can become surprisingly rusty if he is not abreast of changes and worse, victim to new bad habits.

Aeronautical mobile activity here in the Midwest has been at an all-time high this fall. At least one airmobile has been noted daily, which is good activity. It was reported that one WA5 flying a twin into Chicago was heard on .52 simplex announcing, "Midway Tower... Commanche - - - -approaching from 13 miles southwest at 3100..... Ah-h-h-h-h." End of transmission. Oops, wrong mike. It is interesting however, to wonder what Midway tower would think to hear on 118.7 MC, 'WA5XXX airmobile listening 34/94...anybody 'round?"

Marian and John Adams, W6UBJ/W7OTC

Not everyone is flying on VHF. John Mahlon Adams, W6UBJ/W7OTC is hoping to get something on 40 meters from the air. He flies 150's and 172's and has experience with Cessna 120's and 140's with trailing wire antennas, but that is in years of the past. I imagine the fading of the trailing wire antenna has something to do with progress. Picture, if you will, being cleared for "immediate take-off" by the tower. You glance in the rear-view mirror and see a waiting Learjet nose gear stepping on your antenna's loose end. How do you explain that to the tower, when they query, "Cloudbuster 5564 Foxtrot...you are cleared for immediate take-off ahead of the incomming DC-10...do you see the green light?" You say, "Uhh, tower I uh...well...there's a Learj-...you see tower..." In any case, John would like to hear from anyone who is flying on the low bands.

I am getting urges to try the "Slinky" antennas aloft, but so far as I have heard, the best success has been with insulated wire around the fuselage aft the cockpit or strapping a loaded mobile coil/mast onto a wing or underneath the plane's body longitudinally.

Congratulations to Michael Wehr, WB9IOX, and Danny Loftus, WA9WAQ, on their solo. We would like to hear your accomplishments, be they solo, winning the private or squeaking through on your ATR. Let us hear from you. Send news of your aviation/hamming activities and pictures to me at 719 West Water Street, Kankakee, Illinois 60901.

Until next month, may you have a safe and happy Thanksgiving holiday, and if you go flying after the big turkey feast...watch the weight-and-balance!

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Air mobile tips

If you wish to operate your transistor type 2 meter gear in airplanes, a true noise cancelling mic is invaluable. Most of these quality mics are dynamic and a good share of late model rigs are using ceramic mics. A simple solution is to remove the mic amplifier and install a small matching transformer in the case. Hart Postlethwaite, WB6CQW, used a Calrad 1K to 200K and connected the 1K side to the Dynamic element and the 200K side to the mic high & common. It works beautifully and makes crystal clear audio with no background noise. It works on Hart's Clegg 27B and on the Drake TR22 without any changes to the radios. You can also utilize some of the old surplus military noise cancelling mics that contain dynamic elements. Another Happy Flyer reports mounting his antenna on the wing tie-down bracket.

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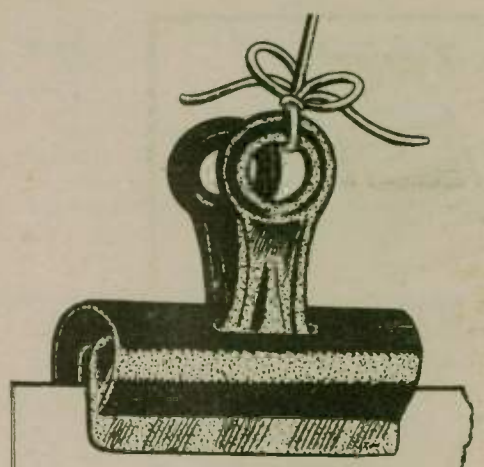
AERONAUTICAL (from page 32)
pilot really knew where he was going. He did.

After leaving the Los Angeles area, I had the opportunity to find out what the three unknown crystal positions on my Wilson represented. On one always silent (in San Diego) channel, I carried on a pleasant QSO with WA6MLQ, Chuck, who was preparing to take off in his aircraft with his handi-talkie. Joining in with us was Ken, WA6BYF, another pleasant contact. I had apparently hit upon WR6ACT, the Barstow ARC repeater.

I secured the rig until we were about to return home and were north of Oceanside. At this point, I switched to .94 simplex and lo! PARS members WA6JOL and WA6PKS came in loud and clear, all the way up to our 6,500 foot perch in the sky. A message to the XYL seemed appropriate (I love my creature comforts when returning from a trip) so I called them up. They were most accomodating, but at that juncture the local CBer with 2M" clobbered us. It then fell to Al, W6OTE, to save the day and make the call.

Aero Mobile is fun! By experimentation I found that an external antenna was not required; that the antenna did not need to be in any special position inside the cabin, and that the reception was beautiful. The small RF output of the Wilson was sufficient for long ranges and signal reports were always gratifying. So how about it guys? Go get an airplane and a handi-talkie. Don't know about you, but I'd rather be flying! and hamming!

("The Call Letter" - Poway, CA ARS)



traffic

by
Paul Gagnon, WA6DEI

LIAISON FUNCTIONS

One of the biggest problems net managers have is keeping the liaison station lists to the next higher net at full capacity.

The number of stations at the Section Level who are willing to take traffic to the Region nets are amazingly few. When the regularly assigned liaison station does not show up the NCS often has to go through the whole list of check-ins to find a liaison (if he doesn't end up taking it himself).

If they are honest, they say they've never done it and don't know how. If they aren't honest, they say they have to go out with the XYL or their rig is going to blow up or they eat supper at that time.

The liaison function from your Section net to the Region net is not hard to do. Once you accept the responsibility of a liaison station the net control will have you receive all the traffic that is going out of the section your net covers. Generally you will have 45 minutes to collect this traffic since the Region nets are scheduled 45 minutes later. When you have received all the traffic the NCS will let you check out. Make sure you know the frequency and times the Region net meets!

When the time comes around for the Region net to commence, you should have your traffic already routed so you can check in and list your traffic properly. A Region net handles traffic for 1 - each Section net in the region, and 2 - the Area net. So you cannot list traffic for stations other than these. Refer to figure one in the National Traffic System Function Diagram to see which sections are covered by your Region net. For instance, if you are checking into the Region Five net (RN5) with traffic for California, New York, Alabama, Oklahoma and Tennessee, you would say you had traffic for CAN(3), Alabama (1), and Oklahoma (1). Can you follow this on the diagram?

When checking into the net the NCS will usually ask for stations in pre-arranged order. He will call the representatives from each section and the area net. When he calls for your section, you check in and list your traffic. When he is ready, he will hook you up with the people you need to send your traffic to. When you are clear of traffic the NCS will route traffic to you that is going back to your section net from the other sections represented on the region net. For instance, traffic from Oklahoma to Arkansas (both covered by RN5).

So now you have traffic going back to your section. What do you do with it? Section nets have a second session quite often to handle returning traffic. The second session may meet after the first Region net, after the second Region net, or may even meet the next evening. If the two latter are true, you are free until the second session of the Region net. Yes, there are generally two.

The second Region net meets after the Area net has met and the representatives to the Area net return with traffic for you to receive and take to your Section net. So when you have a section to Region net liaison, it usually means you go from Section to Region number one to Region number two and back to Section taking traffic both ways.

You may also take a liaison function from Region to Area level nets. This is different because of the way you route your traffic, but is basically the same. Keep figure one handy so you are always ready to route the traffic when necessary. A map is handy to have also, to find cities in the various sections. The net managers, (Section and Region) appoint the liaison stations.

Contact them and volunteer your services one evening per week. They will really appreciate your help. And you will find it quite a bit of fun to work a liaison schedule. You will become a proficient CW operator in short order.

It is a good idea to listen to the nets a few times prior to performing a liaison duty. You get the hang of it real fast that way.

QST

The ARRL has announced that a new Net Directory is now available. This directory is very handy if you do net jumping or if you are a newcomer to traffic and want to know where your local nets meet. They are free for an SASE from ARRL, 225 Main St., Newington, CT 06111.

The California Novice Emergency Net meets at 0900 PDT on Saturdays on 3730. Ted Sharp, K6UYK in North Hollywood, is the net manager and will be glad to have you join them. He can supply you with further information.

The daytime NTS is going strong and needs your help. The Continental Traffic Net meets daily at 1730Z on 14.315 MHz. All stations with traffic for the U.S. and Canada are invited to check in and send it.

The daytime Region 6 net meets on 7.267 at 2100Z and on 3.952 MHz at 0001Z daily. Contact DRN6 Manager Hal Spaulding, K6GMI, in Desert Hot Springs for information.

PSHR

Don't forget to read the proposed changes in the August issue of WORLDRADIO for the Public Service Honor Roll. Bill Heitritter, WB6AKR, is compiling comments and would like yours as soon as possible to make a combined proposal to the ARRL Directors. This is a chance for you to make your feelings in the matter known and to lend your support to make a needed change to the system.

QNV

Do you know what this Q-Signal means? QNV is one of the most misused Q-signals we have. When acting as NCS, this is the one that gets ignored or ...e one where there there is a long pause while the station looks it up. It means "Establish contact with _____ on this frequency. If the contact is successful, move to _____ and send him traffic for _____." The NCS uses this signal when he is in doubt that the two stations can copy each other. What usually happens is that one station doesn't follow instructions and simply goes off frequency and returns shortly to say he can't find the station.

The nets will run a lot smoother if you do exactly as the NCS says. It will save a lot of needless duplication of instruction.

Here's a scoop from Kurt Meyers, W8IBX ..... The Hit and Bounce Slow Net which has been operating Friday through Monday, 7.140 MHz at 8:00 a.m. Eastern Time will also meet Friday through Monday on 3.714 MHz at 7:30 a.m. Eastern Time, 1 November through 28 February, 1975. The purpose is to enable more Eastcoasters to participate who have trouble on 40 because of skip or who are off to work or school by 8:00 a.m.

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LIGHTNING (from page 12)

lightning struck the power line a good distance from the house.

Fortunately, there is a very inexpensive solution to this problem. Both General Electric and Westinghouse make a small valve type arrestor that is constructed like the large units protecting electrical substations. The GE model 9L15CCB007 home lightning protector costs around $12.00 and can be attached at the service entrance or inside the main breaker panel. It is about half the size of a small paper cup and is a three wire device to go across both hot wires and the neutral. These arrestors are UL listed and are guaranteed for a minimum life of 10 years service.

With an arrestor of this type and properly grounded antennas, the only worry would be a direct hit on the house and lightning rods would help in this case. We know of several people using these arrestors on REA lines who now have no problem with this source of lightning. Another good point is that many insurance companies will give a rate reduction with a properly installed service entrance arrestor.

(FEARL News)

●

73

THE TERM "73"

The term "73" means, as we all know, (or do we?) "best regards". Where did it originate? Did it always mean this?

Louise Moreau did some research (she's WB6BBO/W2WRE, YL columnist for QST) and came up with this information: The traditional expression "73" goes way back to the beginning of the landline days of the wire telegraph. The first authentic use of "73" is in the publication "The National Telegraph Review and Operators Guide", published in April 1857.

At that time "73" meant, "my love to you". But within a short time the use began to change. In 1859, the Western Union Company set up the standard "92" code and 73's meaning was changed to a very flowery "accept my compliments", which was in keeping with the very flowery language of the time. Over the subsequent years the meaning was changed somewhat, but in 1908, it was shown as "best regards".

Today, radio amateurs use it more in the manner that James Reid had intended it to be used..."a friendly word between amateurs."

("News Fuse" - Hall of Science ARC)

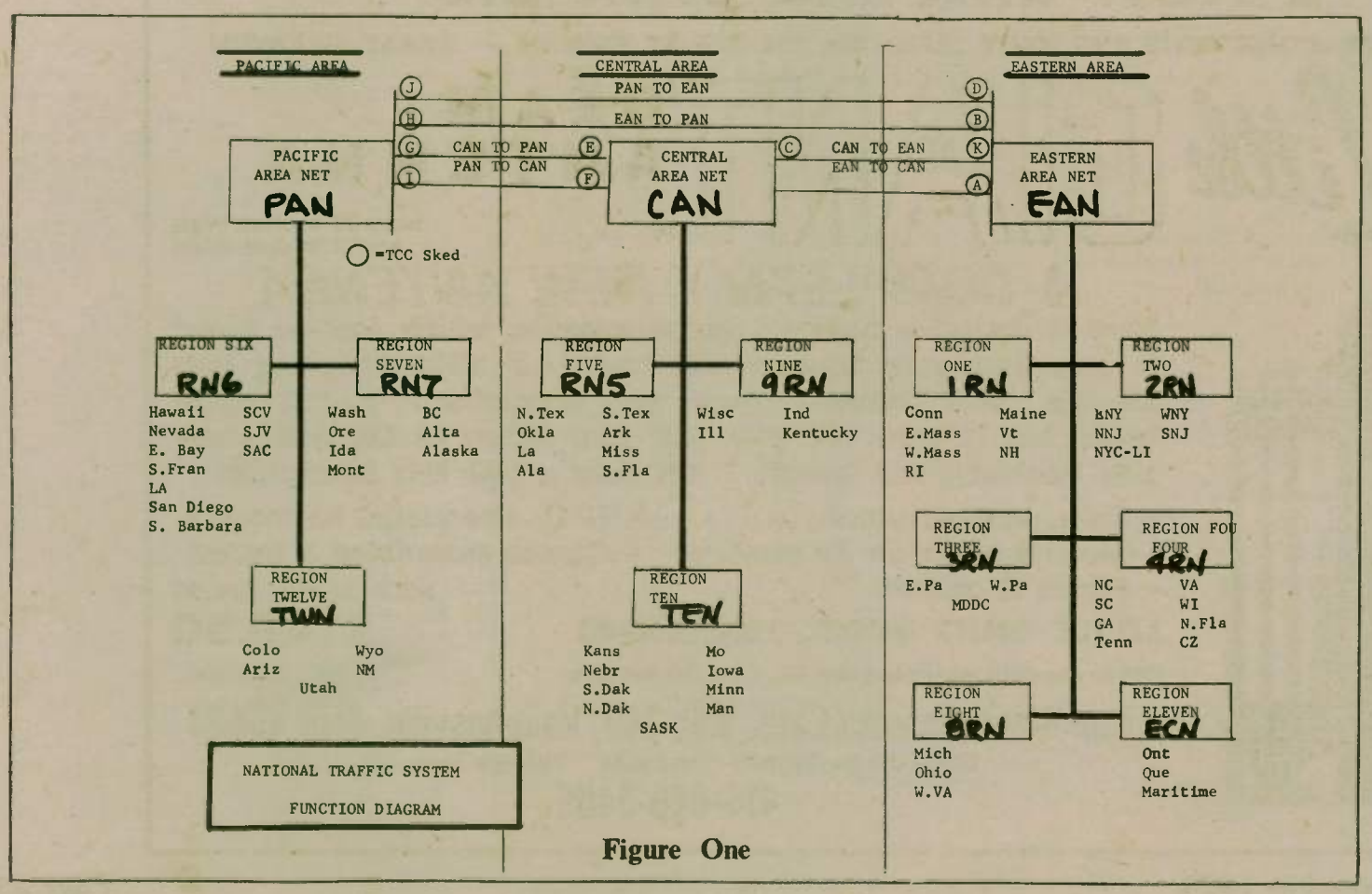


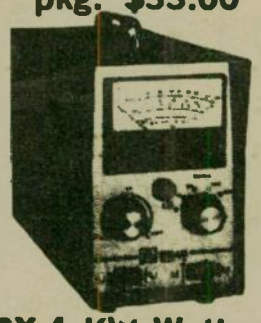
Figure One

APOLLO PRODUCTS *by "Village Twig"*

"L"

package enclosure "Shadow Box" machined with: 2-SO239, 1-Pilot Light, 3 Rocker Switches, and 2-Knobs

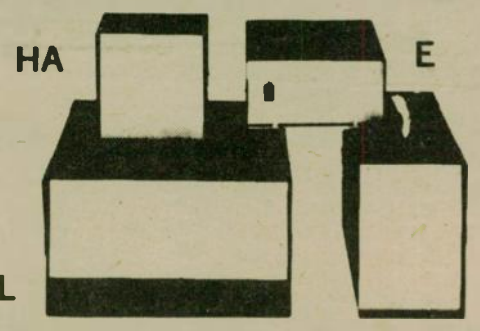
pkg. $33.00



700X-4 KW Wattmeter

Dummy Load Wattmeter for 52 Ohm Input. Measures RF in 4 ranges to 1000 watts. Front panel frequency counter jack-attenuated per range for frequency counter take-off. Portable

$139.95



2500X-2 Trans-Antenna Systems Matcher

KW plus 52 ohm and random wire.

$149.50

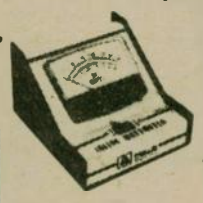
MODEL	WIDTH-HEIGHT-DEPTH	RESALE NET
A	5-5/8 x 2-1/2 x 3	4.25
AA*	4 x 3-7/16 x 3-1/8	5.50
B	5-11/16 x 3-3/8 x 3-3/4	5.55
BB*	9 x 2-1/2 x 3-1/8	5.90
C	7-1/4 x 3-3/8 x 5	7.80
D	8 x 2-1/2 x 8**	9.85
E	6-1/2 x 3-15/32 x 7-1/16	9.25
F	7-1/2 x 4-1/2 x 10	11.15
G	10-1/16 x 3-5/16 x 9	11.15
HA	5-1/8 x 5-1/2 x 4	7.85
D1	Mtg. bracket set for D	.40
J	5 x 3-1/2 x 5-3/4	8.35
K	4 3/4 x 7-3/8 x 11	15.00
L	11-1/8 x 6-1/8 x 12-3/4	22.95
M	11-1/8 x 6-1/8 x 16-3/4	24.40
NA	12-1/8 x 5-7/8 x 12-1/16	23.80

*.050 aluminum cover & chassis w/grained panel
**Mobil mounting available.

2100X-2 SWR Bridge

Large Meter - Sloping Panel Cabinet - Rubber Feet - Keep in Antenna Line up to 1 Kilowatt

$33.95



900X-2 Wattmeter

Measures RF in 2 ranges 25 and 500 watts. 52 Ohm input.

$33.95

2200X-2 SWR Bridge and Antenna Tuner

Both mounted in slope front cabinet

$62.50

2300X-2 SWR Bridge with 900X Wattmeter

Handles 500 watts, mounted in slope front cabinet

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APOLLO "SHADOW BOX ENCLOSURES"

are fabricated of heavy, cold rolled steel. The front panels are of 20-guage brushed chrome steel; some models are line screened and have a red Rocker DPDT switch installed with gold plated contacts and terminals. Covers are baked on Wrinkle enamel.

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- Comes assembled & tested

KITS 10-40 $74.50

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Other models available for 10, 15 & 20 meters — Add $3 trans.

Little Giant Antenna Labs, Box 245, Vaughnsville, Ohio 45893

Subsidiary "Apollo Products" Village-Twig Co.

419-646-3495

clubs

Below is an exact copy of the letter sent by the Gloucester (NJ) ARC to all visitors, both licensed amateurs and non-amateurs. We think no explanation other than that is necessary ...A FB public-relations job!

"Thank you for attending one of the recent meetings of the Gloucester County Amateur Radio Club. It was a pleasure to have you as a visitor. You may wish some information on what the Gloucester County Amateur Radio Club has to offer its members, and I would like to take this opportunity to give you a brief summary of some of the things we are doing for the Amateur fraternity.

"First I would like to point out a little of our past history. The club was organized in 1959 and incorporated in the State of New Jersey as a non-profit organization. Since 1959 we have had a record of continuous activities, with regular meetings and other club activities. Though we are not a large club, if you will look back through the pages of QST you will find our records in most ARRL events. You will find that we have participated nearly every year in most ARRL sponsored operating events. (We have been an ARRL affiliated club since our inception)

"Each year we have been active in the Field Day event, and have sponsored activities connected with the DX Contest, ARRL Sweepstakes and VHF Sweepstakes, not to mention the Novice Roundup and various other contests. Our club has for many years sponsored an Amateur Radio Emergency Corps and has supplied the nucleus of personnel for the CD-RACES program in Gloucester County.

"We provide fraternity and friendship for our members. We supply Club QSL cards, at cost, to our members. Our club member program that pays half of the application filing program that pays half of the application filing fee for club members that are successful in upgrading their operators license. We have a distinctive club jacket, and decals for your car and shack, along with patches for your jacket or cap.

"In the past club members have put on Amateur Radio demonstrations at various schools and service organizations as well as providing communications for various Police Departments during the Halloween season and have on occasion helped with annual clothing drives for Goodwill Industries of Southern New Jersey. We have had a float in Woodbury's Halloween parade, and have put on exhibits at the 4-H Fair and participated in Amateur Radio Week in Gloucester County.

"For prospective amateurs each year the club runs code and theory classes that lead to the Novice ticket. We also have a technical advisory committee that can give assistance with technical problems that may arise from time to time.

"There are two classes of membership available, the Associate membership for non-amateurs or persons not able to actively participate in the club, and Full membership for licensed amateurs. The cost for Associate membership is a $1.00 initiation fee, plus $3.60 per year dues. For Full membership a $3.00 initiation fee, plus $6.00 per year dues.

"We are sincerely interested in helping you get the most out of Amateur Radio and feel we can do this best by having you join our club.

Truly yours,
(Signed)
Harry McCormick, WA2SEA
Recording Sec. GCARC

(From "Affiliated Club Bulletin" ARRL)

●

Florida Radio Club Directory

Broward Amateur Radio Club, W4AB
2nd Friday each month 7:30 p.m.
Fla. Power and Light Bldg.
501 So. Andrews Ave, Ft. Lauderdale. Use Rear Door. Visitors welcome.
Mailing address; B.A.R.C.
M. Rosenberg, M.D., Secty.
131 S.W. 63 Ave.,
Ft. Lauderdale, FL, 33314
For more info. call 581-2970, 731-7039

Lake Amateur Radio Assn., Inc., K4FC
Meets each Thursday 8:00 p.m. EST
Clubhouse, Springdale, Ave.
Bassville Pk., between Leesburg and Tavares, Florida.
Mail to: Lake Amateur Radio Assn., Inc.
K4FC
c-o Ken Aitken, W4FIQ, Sect.
2226 Lakeview Drive Tavares, Fla., 32778.
Tel.: (904) 343-4374

Hillsborough Amateur Radio Society, Inc.
WA4GJJ
Meets 4th Tuesday, 7:30 p.m.
N. Tampa Chamber of Commerce Bldg.
8100 Nebraska Ave., Tampa, Fla., 33612
Visitors always welcome

Clearwater Amateur Radio Society, WB4BZF
Meets 2nd and 4th Thursdays at 7:30 p.m.
in the Parish Hall of the Episcopal Church of the Good Samaritan located at
2165 N.E. Coachman Rd., Clearwater.
Correspondence to: John Costello, WN4HMB,
Sec'y, 2120 Catalina, S., Clearwater, FL 33516

Dade Radio Club, Inc., W4NVU
1st & 3rd Tuesday
Museum of Science, 8:00 p.m.
3280 So. Miami Avenue
Miami, Florida
Mailing address: P. O. Box 73
Biscayne Annex, Miami, FL, 33152

St. Petersburg Amateur Radio Club, Inc.
W4GAC
Meetings: 1st Friday
Red Cross Hq., 818 -4th St., North
Mailing address: P. O. Box 4026
For information phone 345-0464/544-9360.

Orlando Amateur Radio Club, Inc., W4PLB
3rd Wed., 8:00 p.m.
First Federal Savings & Loan on Edgewater Drive, Mailing Address: 8024 Charlin Parkway, Orlando, FL 32807.
2 Meter Net - 145.350 kHz
Mon. through Thur. 7:00 p.m.
More information: call 277-0638

Floridora YLs, W4FE
All licensed Florida YLs invited to join.
Mailing address: WB4WPZ Martha Green
1568 So. Jefferson Ave, Clearwater, Fla. 33516
1300 Z on 3933 Tues.

Daytona Beach Amateur Radio Association, Inc., K4BV - meets at 8:00 p.m. 3rd Monday monthly, American Red Cross,
341 White St., Daytona Beach, Fla.
Mail: P. O. Box 1608, Daytona Beach, Fla. 32015

Fort Meyers Amateur Radio Club
Meets 1st Wednesday of month at 7:30 p.m.
First Federal Savings & Loan Assn.
Pondella Road (SR-78-A) North Fort Meyers
Sec: 641 Pold St., Ft. Meyers, Fla., 33901

Tampa Amateur Radio Club, Inc., W4DUG
Meetings: 1st & 3rd Mondays 7:30 p.m.
Club House: Davis Islands
Columbia & Barbados.
Mailing address: 943 Cimmeron Ave., Tampa, Fla., 33603

attn: clubs

How would you like to go on Field Day in a Winnegabo instead of that drafty old tent. Or possibly operate from Fiji or the French Riviera. All it takes is money. And we've got it for you. All you have to do to fatten the ol' club treasury is accept our generous commission for selling "Worldradio" subscriptions through your club.

We wanted to know if our proposal was a good one so we asked a few people who knew something about money what they thought of it. From Arriflex Onnasty came this comment, "If I had such a deal I would have never gone into chips". We turned to Jay Saul Getter who mused, "Looks better than a soil well". Nellie Stonefeller opined, If my grandfather had received an opportunity like that he could have given away quarters instead of dimes. Through his spokesman, Clifford Earring, E. Howie Hues said, "It sounds so good I'm considering leaving my penthouse so I can get in on it too."

So, who are we to argue with such financial genies. To get full details just write to H. Ellie Huntz, Worldradio, 2509 Donner Way, Sacramento, CA 95818

West Palm Beach Amateur Radio Club, Inc., W4HAW
P. O. Box 6834, Southboro Station
West Palm Beach, Fla., 33405
Meetings: 1st Wednesday of each month, 7:30 p.m. - 823 Newark Street
West Palm Beach, Fla., 33401
Information: Call 686-4766 or 588-1148

Vero Beach Amateur Radio Club, W4OT
Meets 2nd Thursday of each month at the Club headquarters and station.
American Red Cross Indian River County Chapter Building, 2506 17th Ave.,
Vero Beach, P. O. Box 3088 Beach Sta.
Sec'y-Treas., Don Caverly, K4GHN,
2333 Indian River Blvd., Vero Beach, Fla. 32960

Palm Beach Repeater Assn., Inc., WR4AFM
Meets each Friday night, business meetings
First Friday at 8:00 p.m. at
Palm Beach County Court House Room 150,
West Palm Beach, Fla.
John Fulford, WA4VPY, Sec'y.
Phone 686-8553 Day or 683-2971 Night.

Gulf Coast Amateur Radio Club, Inc.
Meets 3rd Thurs., 7:30 p.m. in the Community Room at the Clearwater Federal Savings and Loan,
Southgate Shopping Plaza on U.S. 19 at New Port Richey, Fla.
Mail to: Walter J. Allard, Sec'y.
K4HDQ, 1507 Shannon St.,
New Port Richey, Fla., 33552

Tampa Bay Repeater Association, WB4HAE
Meets second Tuesday each month at 1930
WTVT Studios
3213 W. Kennedy Blvd., Tampa, Fla.
Mail to P. O. Box 2812, Tampa, Fla. 33601
Phone 689-6510

Platinum Coast Amateur Radio Society
Meetings, 2nd Monday of each month at the National Bank of Melbourne and Trust Co.,
Melbourne, Fla., 32901.
Club Address: PO Box 1004
Club meeting time is 1930.

Playground Amateur Radio Club
Mailing address: P. O. Box 873
Ft. Walton Beach, Fla., 32548
Meetings-Social Meeting 1st Thursday,
Business Meeting 3rd Thursday.
Meet at the Old Police Station on 1st Street.

Sarasota Amateur Radio Assn, Inc.
Meets 3rd Tuesday at 8:00 p.m.
Every month except July and August.
Sarasota Fire Dept. Station No. 1
1445 - 4th St.
Mail to WB4JFK
Club call W4IE in memory, Charlie Service.

Brevard Repeater Association, Inc.
WR4AFI 28-88 WR4AEG 443.8-448.8
P. O. Box 1712, Cocoa, Fla., 32922
Meets 1st Monday at 1930 in First National Bank of Merritt Island, SR3 and SR520.
(from "Florida Skip")

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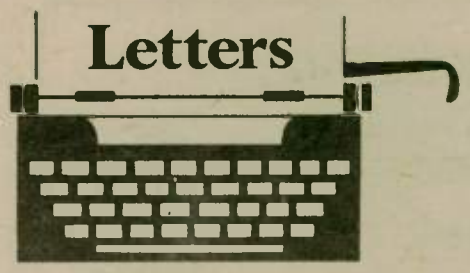
Letters



I was in Romania for one week this past summer. It was a great experience. Meeting a fellow amateur in a foreign country has to be one of, if not the greatest reward in amateur radio. I have a great friendship and affection for some wonderful people. Just think, if I wasn't an amateur, I wouldn't have met them. World understanding is so very important. I'm glad to see your paper is devoted to this goal.... Tim Hastrup, WB6PZW

Thank you for choosing my QSL as card of the month. I was surprised and pleased, of course. Happy to see Worldradio growing - it's the most interesting publication I receive. The news is always so timely and the stories well written.... Kay Anderson, W8DUV

Yours is the most exciting and rewarding capsule of communication I get every month .... Mary Duffield

I want to take this opportunity to congratulate you on the outstanding quality of your Worldradio News. It's truly a much needed addition to our hobby.... Steven Hawley, WA4UAZ

Congratulations on an excellent September issue. The articles on AP2AD, Emergency Communications, and the international aspects of Amateur Radio by Armin Meyer were especially good.... Jay Holladay, W6EJJ

Congratulations for your success in filling one of amateur radio's needs - news that's seldom published... Ray Burrows, WA?LI T

The Worldradio News

an international newspaper

Fourth Year

The Worldradio News is published monthly by Worldradio Associates.

Offices at 2509 Donner Way
Sacramento, CA 95818 USA
Telephone: (916) 456-6725

Subscription rates: $5 per year, $9 for two years, $13 for three years, $36 for ten years, and $50 for life. IRC's and local currency will be accepted from overseas readers.

The Worldradio News is an independent newspaper. It is not affiliated with any other firm, group or organization. Its pages are open to all. Permission is hereby automatically given to reprint from this publication. If there is something useful, we wish to share it.

The Worldradio News is two-way communication. Send in Amateur Radio information and news. Share your knowledge with your fellow amateur and "Worldradio" reader. We are most interested in your comments and suggestions. We would appreciate being placed on the mailing lists of amateur club bulletins.

Article contributions and advertising inquiries are invited.

staff

Armond Noble, WB6AUH
Norm Brooks, K6FO
Dorothy Schwartz
Jack Schwartz, WA6TRZ
Bill Yost, WA6PIU
Judy Yost, WA6RAN
Carolyn McCuen

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1/2 page	66.26	62.29	58.31	54.99
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1/8 page	21.91	20.60	19.28	18.18
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Worldradio is printed on the third Wednesday of the month. Camera-ready ads must be in by the second Wednesday of the month. Ads we make up for you must be in by the first Wednesday of the month.

Rates quoted are for camera-ready ads. If we make up your ad, there will be an additional charge reflecting time and materials.

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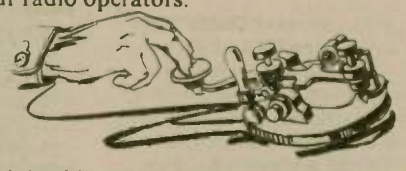

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One that makes the world small.

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When you like "Worldradio," you will enjoy meeting the other subscribers, on-the-air and in person. We hope that you make new friends.

(continued from last month's issue)

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Floyd Backus, WA4PRP, Richmond, VA
Wm. R. Bell, Long Beach, CA
Elmer Tapps, KØZCS, Des Moines, IA
J. Leadbeater, W4YYO, New Port Richey, FL
Norm Monro, K4FRY, Weaver, AL
Carl Warren, WØKWS, Springfield, MO
Jean Shaffer, WN6YIC, Fresno, CA
Al Montoya, WB6IMX, Sunnyvale, CA
F. Gately, W6LNH, Los Angeles, CA
Joe F. Lowe, W6RMQ, Oakland, CA
Wm. Colbert, W5QYK, El Paso, TX
G.T. White, WB6IZE, Oakland, CA
Viv Douglas, WA2PUU, Syracuse, NY
James Flynn, W5ZO, Crawford, TX
Rising/Lambright, KØLWJ, Bogota, Colombia
Dave Bacom, WA6TPJ, San Pablo, CA
R. E. Backman, K6DJC, Laguna Niguel, CA
Jack LaFlesh, WB6CQF, Durham, CA
Orin C. Levis, W6DZK, Sacramento, CA
Charles Atwater, W2JN, Upper Montclair, NJ
Dyke Johnson, Rolling Hills, CA
Mario Carrera, W3TTN, Jeannette, PA
John Martin, W6SE, Encinitas, CA
R. Watkinson, WN6YAF, Novato, CA
Lee Kelso, WAØKHI, Sutherland, NE
Evan Rolek, K9SQG, Dayton, OH
Barbara Thompson, KH6ICO, Honolulu, HI
Noel Thompson, KH6FOX, Honolulu, HI
Bill Hehn, WA6FBY, Stockton, CA
Irene Nulick, WNØMPC, Omaha, NE
Warren Baker, WA7JTW, Elkton, OR
Col. C.E. Fay, WB6WHC, Oceanside, CA
Dennis Karski, W9CWI, Franklin, WI
Kenneth Bork, WA9KQE, Muskego, WI
A. W. Chilton, Portland, OR
Earl Goddard, Palo Alto, CA
Dempa Jikkensha Co., Tokyo, Japan
Phil Payne, WA6QCR, Santa Rosa, CA
McKinley Byrge, W4APG, Crossville, TN
Ron Hunt, WB6TJJ, Fresno, CA
Harold Mosshammer, Silver Creek, NY
J. Fahrendorf, WA7CYB, Glendale, AZ
Art Gilcrist, Sacramento, CA
Thomas Davis, W2BYH, Vineland, NJ
Dr. R. Rodman, Springfield, VA
Cal Steunenberg, W6WFV, Bellflower, CA
Roy Jonasson, K6TOE, Morro Bay, CA
A.W. Stewart, Kodiak, AK

(continued in next month's issue)

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(continued from page 5)

Herb Musclow, W7ONW, of Charles Hopkins Pioneer Chapter in Washington participated as the Seattle operator of a triangle search and rescue effort to locate a lost airplane with 3 men aboard. Unfortunately, the outcome was a tragedy.

The George Ladd Pioneer Radio Club in San Francisco operates club station WB6FDT. The phonetics "Fuddy Duddy Telephoneers" was soon invented by the younger club members, implying that Pioneer membership went with senility. Regardless, the club provided "disaster communications" in 1971 with the San Francisco Bay oil spill. Base and mobile units provided communications for numerous voluntary clean-up organizations. Amateur members of the club also carry on a hearing aid repair program in association with the Hearing Society of the San Francisco Bay Area.

Early this year, the George Ladd club set up an amateur station at the Guide Dogs for the Blind School. Blind resident students (who are licensed amateurs) being introduced to their new guide dogs, can visit with San Francisco Bay Area amateurs through the various VHF repeaters. Currently the club is installing 2-meter transceiver units in the "Beep-Ball vans" which the Pioneer chapter uses to transport blind baseball players.

For four successive years, the members of the Ladd Chapter, as a group, have won the Pioneer QSO party by a large margin.

Repeaters

The George Ladd Chapter also operates a VHF repeater atop one of the Telephone buildings in San Francisco. WR6ACI is on 146.19/.79.

Probably the most famous Pioneer Club repeater is WR9ADC of the Theodore Vail Chapter in Chicago. This repeater was featured on the cover of the September 1972 issue of 73 Magazine. It operates 449.85 MHz in, 447.85 MHz out.

WR2ACC, the repeater of the Manhattan Empire Chapter in New York City is a 146.07/.67 machine covering a 50 mile radius around New York City. Club members are active with "Talking Books" mentioned previously.

The Jewett Chapter at Bell Telephone Labs, Whippany, NJ, operates a repeater on 147.63/.03.

The Sierra Pacific Chapter in San Jose, CA operates WR6ABD on 146.04/.64. The Maple Leaf Chapter, Toronto, Ontario, Canada, operates repeater VE3PRT on the 450 MHz band.

The John I. Sabin Pioneer Radio Club in Sacramento operates WR6AGK on 147.90/.30. The repeater is a new project, but club members have been active in amateur public service activities since the club's inception three years ago. They participated in providing emergency communications in the Isleton, California Flood disaster in June 1972, and during the Roseville, California bomb explosion disaster in April, 1973. Tom Revak, W6JYZ, was honored as "Pioneer of the Year" for having headed up the talking book repair activity serving over 500 blind people in the Greater Sacramento area.

The Good Guys

So there you have it- a summary of who these Telephone Pioneers are and what they do. When you hear CQ TP, or CQ Telephone Pioneers, you'll know you're listening to some amateurs who are probably wearing white hats.

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Honduras

(continued from page 1)

on 21 and 22 September, more than 200 amateurs in the United States and a larger number in Central America handled emergency messages and requests for supplies relayed by Honduras-based amateurs.

Most of the United States' amateurs were members of the American Radio Emergency Corps and other service organizations that operate long established emergency communication networks and train regularly in preparation for emergencies such as that in Honduras.

Much of the emergency Amateur Radio activity was centered in the Miami area. The week after Fifi struck, a team of bilingual amateurs from Miami's Sociedad Internationale de Radio Aficionados, flew to Honduras to assist operations there.

Eighty-five percent of the communications in Honduras is now handled by Amateur Radio and the activity is expected to continue until normal communications are fully restored.

Among amateurs involved in the relief operations were Omar Parades, HR1-OP, and Jonathan R. Toeldo, HR1RT, Teguciagalpa, Honduras; Frank V. Savat, WA5YOI, Shreveport, LA: John W Christy, WØUKD, Minneapolis, MN: Charles A. Giannetta, WA3RSQ, Bethlehem, PA.; Rafael Estevez, WA4-ZZG, Hialeah, Fla.; J. H. Goodwind, VE3DPQ, a Canadian living in Miami; and Jose A. Pignatta, LU2BZ, Parana, Argentina.

●

Next month...

A super-spectacular issue. We'll have the timetables for the orbits of OSCAR 7. A well known amateur/attorney will talk about "Towers, Zoning and the Law". Details about an antenna, indoor, 15 x 9 feet that worked DXCC. Word about the Navassa DXpedition, and a lot more.

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MEDICAL: Any licensed amateur radio operator in the medical or paramedical field should join MARCO (Medical Radio Council). Contact: Stan Carp, M.D., K1EEG, 44 Main St., Saugus, MA 01906 (617) 233-1234

The SOCIETY OF WIRELESS PIONEERS invites all professional operators, active or retired to join the world's largest organization of its kind. Active nets. Write Box 530, Santa Rosa, CA, 95402 for details

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