The Newspaper for the Amateur Radio Community

Worldradio/NEWS

Vol. 2, No. 9 July 1973 50¢

220 MHz

A major reallocation of frequencies available for two-way local radio communication has been proposed by the Federal Communications Commission.

The creation of a new Class E citizens radio service in the 220-225 MHz band has been proposed by the FCC. The new band would supplement the current 27 MHz band usage by the Class D citizens service. An FCC official said the new frequencies would be used mainly by businesses, such as construction firms, taxi companies and by individuals.

The number of citizens band licenses increased to 868,000 in 1971 from 49,000 in 1959. According to the FCC, crowding in Class D would be relieved and a boom for two-way radio manufacturers would be created by the new Class E service.

The FCC official said the 220-225 MHz band is currently being used by amateur radio operators and paging services.

The Federal Communications Commission asked for comments on its proposal by September 20.

See full story on page 10.

Repeaters

June 28, 1973

ACTION IN DOCKET CASE

COMPLIANCE DATE FOR AMATEUR REPEATER STATIONS EXTENDED TO AUGUST 30, 1973

In response to a request by the American Radio Relay League (ARRL), James E. Barr, Chief, Safety and Special Radio Services Bureau, has extended the date by which all existing remotely controlled stations in the Amateur Radio Service must comply with the rules adopted in Docket 18803. The new deadline is August 30, 1973. The deadline had been June 30, 1973.

(Turn to page 2, please)

Hams Active In Emergency Drill

Craig Rutledge, WB6NUM, Secretary/Treasurer of the Western Public Service System, and "Worldradio" staff member, operates Field Day from "Worldradio" Staff ARC station, WB6QHL.

FIELD DAY! From Nova Scotia to Hawaii and the Yukon to Puerto Rico, 12,000 amateur radio operators had a fun weekend (June 23-24) as well as practicing operating under emergency conditions.

Sponsored by the American Radio Relay League, this exercise was the 37th annual test of amateur readiness. They did not depend on the utilities to furnish the electricity for their radios, but rather operated with gasoline-engine generators. As many disaster-struck areas have experienced local power failures, the amateur practice with generators is particularly appropriate. Some stations even operated completely on batteries.

While such readiness is usually thought of in regards to natural disasters, Field Day practice may find another use. The national press recently carried a prediction by Herman Kahn, physicist and director of the Hudson Institute (a research "think-tank") in which "power blackouts and brownouts around the country" were predicted. In such case amateurs would be called upon to assist their communities.

A graphic example of the use of amateur radio in a time of disaster was the Christmas-time earthquake in Nicaragua. The links of contact were amateurs in Managua using generators.

Even closer to home, just last year, during the Field Day drill itself, major flooding hit New York state and parts of the South. Hams, who had gained experience on Field Day in prior years, found themselves relaying requests for food and medicine, and messages from survivors in the devastated areas, to relieve the anguish of their worried loved ones.

This drill ensures that no area, with active amateurs, would be cut off from the outside world and the needs of the stricken locality's residents would be met. During the Rapid City (S.D.) flood all the telephone circuits were out and amateurs were handling high-level government and relief agency traffic.

As ability comes only with practice, about one out of every ten active amateurs participates in Field Day developing and maintaining proficiency. The organized local radio clubs are the backbone of the exercise. Many clubs have vans or vehicles converted from other use which become mobile radio facilities.

The test is of operating skill and the ability to set up a station quickly in the field. Some organizations pretend a flood has hit the area and head to a hilly location above the valley floor. There they spend the 27 hours of the drill.

The practice in providing a valuable public service does not come easy as the logistics required for radio equipment, generators, cooking, sleeping and sanitary facilities almost resemble a military operation.

(Turn to page 26, please)

Newsfront

Around the World

Colombia Honors Hams

In appreciation for the outstanding services rendered the country in times of distress and to give the organization some well-deserved publicity, Colombia issued a 60c, multicolored, ordinary stamp on May 10 to commemorate the 40th anniversary of the founding of the Colombian Amateur Radio League.

On many occasions and especially during the flooding of the river town and port of Leticia in 1972, and again this year, with considerable loss of life and property on both occasions, the League was instrumental in maintaining constant contact between the town, Bogota and other Colombian cities. Leticia is located on the extreme southern tip of Colombia which projects out into the Amazon River.

It is also claimed that when Managua, Nicaragua was virtually destroyed by earthquake and fire on December 23, 1972, an amateur radio station operated by a Colombian was the first to make known the true extent of the disaster to the outside world.

The stamp's design consists of the League's emblem and in a circle around it, the words: "Liga Colombiana de Radioaficionados 1973". The cachet for the FDCs also released shows an outline map of the world, the League's emblem and the letters "HK". (In accordance with international regulations, Colombia can use any three or four letter combination beginning with HJ or HK, to form its call letters). The special first-day cancellation shows a dipole antenna, commonly used for high-frequency communications.

We are indebted for the above information to our Colombian Correspondent, H. A. Mussenden, Airbox 5822, Bogota, Colombia. (From "Western Stamp Collector")

Highway Emergency

by Clyde Mashburn, W4SDR

On the afternoon of Monday, April 2, 1973, O. D. Hinman, WB4JSE, New Smyrna Beach, Florida, answered an emergency call from Warren Carlson, K8CBT-Mobile, who was on Interstate 95 between New Smyrna Beach and Titusville. K8CBT was at the scene of an auto accident in which the driver was severely injured. Luckily, K8CBT's XYL is a nurse and was giving such professional assistance as was possible under the circumstances, but immediate help was necessary.

Minutes later, WB4JSE contacted the New Smyrna Beach police and the Florida Highway Patrol. An ambulance, law officers and a wrecker were quickly dispatched to the scene and the injured party was removed to a hospital. O. D. Hinman said he could hear the sirens as he hung up the landline.

All operation was on 146.94 MHz from 2130 to 2158Z.
(From "Florida Skip")

Washington Report: FCC

(Continued from page 1)

ARRL said that the amended amateur rules for repeater stations were complex, involved techniques never before required of amateurs, and the changes raised a number of questions not readily answered. ARRL said that it was "common knowledge" that most applications for repeater stations filed before April 30, 1973, were being returned, and as a result, other potential applicants delayed filing until they could submit more complete applications that would not be returned for amendment. ARRL said that because of this situation, full compliance with the rules by many repeater stations could not be achieved by the June 30, 1973 deadline, and requested an extension to October 30, 1973.

Barr said that he could not agree that an extension to October 30 was justified. He pointed out that while the new rules became effective on October 17, 1972, existing stations were given the necessary time to bring their operations into compliance. He said that the Commission in a Public Notice issued on October 6, 1972, and in its Memorandum Opinion and Order restated the requirement that waivers of the June 30 date would not be granted except under the most "exigent circumstances". The Commission's intentions and policies were publicized by the amateur radio press, Barr said, and the Commission's staff helped many applicants and licensees process their applications.

Barr said that the rules adopted in Docket 18803 were the first comprehensive effort by the Commission to regulate amateur repeater stations and the increasingly sophisticated remote control systems being used by amateurs. He said that while repeater stations were formerly licensed under the rules applicable to all amateur stations, it became apparent from the applications filed that many of the new requirements were not understood or observed. Noting, however, that of about 800 systems applications only some 300 have met the new requirements, Barr said that a large number of stations will have to cease operations if the June 30 deadline is adhered to. While the full 120 day extension requested by ARRL was excessive, he said, the new deadline of August 30 would give amateurs enough time to file their applications in an expeditious fashion.
(Action June 27, 1973, by Order)

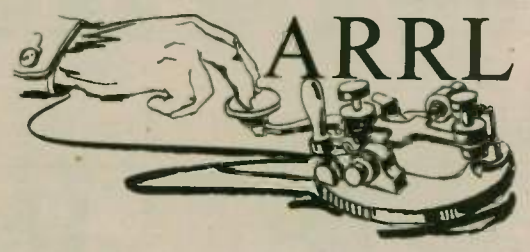
May 24, 1973

ACTION IN DOCKET CASE

By Administrative Law Judge Byron E. Harrison on May 22:

JACKSONVILLE, FLA. (SAMUEL C.
(Turn to page 47, please)

ARRL



June 14, 1973

FCC has granted the ARRL request for a 60-day postponement of the comment date in Docket 19723, the RACES study. This makes the new date for comments by interested parties on or before September 4, 1973. Details on the docket appear starting on page 78 of June QST.

June 14, 1973

The new edition of the ARRL Repeater Directory, detailing 718 United States and Canadian repeaters, is now ready for distribution. To receive your copy unfolded by first-class mail, send an addressed envelope larger than 6 by 9 inches with 24 cents U. S. postage. This membership service is available without charge from ARRL, 225 Main Street, Newington, Connecticut 06111.

June 21, 1973

At the conclusion of the June 23 through 24 ARRL Field Day, participants are urged to report promptly. Full information on summarizing results appears on page 80 of May QST. Entries must be postmarked no later than August 1. Photos of your setups identified with call, club name and transmitter class, as well as comments on your activity, are welcomed. Groups are reminded of bonus points available for using the Oscar 6 satellite. Appropriate publicity material and message copies must be attached to your entry for bonus credit. Address FD reports to ARRL, 225 Main Street, Newington, Connecticut 06111.

June 28, 1973

The Federal Communications Commission on Thursday June 28 extended the date for compliance with the rules established by Docket 18803, on repeaters and remotely controlled stations, to August 30, from its earlier deadline of June 30. A delay until October 30 had earlier been requested by ARRL. Details will be in the August issue of QST.

Visit ARRL

During the summer travel season many amateurs visit ARRL Headquarters and the Maxim Memorial Station, W1AW. The League Headquarters building is open to visitors Monday through Friday, eight to five EDST, without appointment. Times other than these can be covered by writing ahead and arranging for a tour. A holiday closing will occur on September 3. Printed directions to ARRL are available without charge. Send an addressed stamped envelope with eight cents postage to ARRL, 225 Main Street, Newington, Connecticut 06111. Remember to bring your original license, not a photocopy, to operate W1AW.

Worldradio NEWS

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

EARL CARRIER, PERKINS TOWNSHIP, ON DUTY
. . . at one of the Willard check points

Amateurs Help After Tornado

Within an hour after a killer tornado whipped through Willard (Ohio) on May 10, area amateur radio operators were setting up equipment to provide emergency communications.

The stations were maintained there until May 13, sometimes into the early morning hours.

The majority of operators were members of the Firelands Amateur Radio Red Cross Emergency Communications Club, which was formed in 1968.

Primary stations were at Willard Junior High School, the disaster command post, and Willard Hospital.

Other stations and walkie-talkies were manned by other amateurs, many of whom are affiliated with the local Red Cross agency's emergency radio network. Amateurs showed up from as far away as Toledo and Akron to provide necessary communications.

After the tornado, messages were relayed into Sandusky for Red Cross supplies, blood and other materials. Radio communications were necessary because telephone usage was limited.

Other calls provided information concerning the welfare of Willard residents to their relatives and friends who had been unable to reach them over the telephone.

Among the amateurs participating were: Earl L. Carrier, K8WLP; Richard Turnley, WB8AMR; Kenneth, K8OHG, and Mary, K8ONV, Ryden; Mike Ridenour, WA8KCZ; Lou, K8IQB, and Dorothy, WA8QQM, Braun; Fred Reynolds, K8KWO; Keith Loreno, WA8USC; Whitey Evans, WB8BQM; Vern Basterash, WA8AZN; Gary Nissen, WB8KDO; Dan Kovatch, W8CAR; Charlie Dudzik, W8KWK; Carl Sidoti, WB8-FWF; Ron Rublaitus, W8OTJ; Ken Dufford, WA8QZY; Gary Steinhour, WA8WGD; and Kenneth Smith, W8AZL.
(From the "Sandusky Register")

Davis Radio Men Helped In Blast

Both mobile and stationary radio units were used by Davis ham radio operators during Saturday's Roseville explosion.

Jeff Hillard, WA6IOK, used a mobile truck unit in the Roseville area and Gary C. Matteson, WA6TQJ, used his home station to assist Sacramento Red Cross during the disaster.

Jeff Hillard, assisted by Gary Rosenberg, was stationed near the disaster for five hours. They assisted with evacuating people and watching for looters.

Gary C. Matteson, Yolo County radio officer, monitored and operated his radio station for 12 hours straight on Saturday. Calls for supplies and needed assistance were handled through his station.

"As most utilities are knocked out during disasters, police radio units and amateur radios operating off of generators or car batteries are usually the only means of clean channel communications," said Matteson.

"We are able to set up a remote station and start handling health and welfare messages immediately," stated Matteson.
(From "The Democrat" (Davis Edition), Woodland, California)

Ham Operators Get Award

Ham radio operators who are members of Central Texas Repeater Association Tuesday night received the National Weather Service's public service award for their "exemplary service as severe weather spotters".

A certificate was presented to Roland L. Edrington, president of the association, by Doyle Casey, principal assistant at the NSW in Waco. He made the presentation for George P. Cressman, director of NSW, Washington, D.C.

Cressman cited local hams for their service during the past several years and for the speed with which they are able to mobilize any hour of the day or night.
(From the Waco, Tex. "Times-Herald")

Governor Commends Amateur

A Carson City radio amateur, Curt Foltz, WA7KNL, was presented a letter of commendation from Governor Mike O'Callaghan at a statewide meeting of the Nevada Civil Defense Radio Amateur Civil Emergency Service (RACES) in Reno Friday night.

Foltz was commended for the many hours of volunteer time spent in organizing the Nevada RACES program. At present, Foltz is the Nevada RACES net manager and net control station for the statewide RACES radio network.

He handles regular administrative radio message traffic from the state capital to civil defense officials in Nevada's counties and those in adjacent states, in addition to exercise drill traffic.
(From the Reno, Nevada "Gazette")

Medical Call

On June 2 the El Jebel Shrine Temple was conducting its Spring Ceremonial at its Mosque in Denver, Colorado by parading its uniformed bodies for the benefit of its members and the novices.

Four members of one of the newest units - the RADOPS - were stationed strategically along the parade route with their portable radio units and operating on the amateur frequency of 146.88 MHz.

When Noble Ralph Lent, a member of the Drum and Bugle Corps, collapsed directly in front of the Divan and the class, Reese Ray, WØOHD, who was stationed within a few feet, immediately alerted Jim Pickins, WAØNWD, the net control station, that a noble had collapsed.

Ron Richards, WBØICP, who was at the entrance to the Mosque, ran down to Reese to help. Dr. Lester Crago, a member of the Drum and Bugle Corps and the Medical Corps, immediately took over. The Medical Corps brought out their oxygen equipment and asked for further help.

Ron Richards put his radio on the Rocky Mountain Repeater League's repeater frequency of '34-'94 and called Ray Pitts, KØESG, an officer of the Denver Police Department. Fortunately, he was listening and immediately reported to Ron that a Rescue Unit of the Denver Fire Department was on its way and an ambulance would be there very soon.

It was exactly seven minutes from the time the man collapsed until the rescue unit arrived and took over.

Noble Lent had, in fact, suffered a heart attack and was in a most serious condition, showing practically no signs of life.

The ambulance arrived a very few minutes later and took Noble Lent to St. Anthony's Hospital. A report was received at the Mosque about 2:30 p.m. that Noble Lent had been revived and was getting along as well as could be expected. However, the damage from the attack apparently proved to be too much and he passed away around 8:00 p.m. that night.

His passing is mourned by all. It was due to the prompt action in reporting the emergency and the immediate response to the call for help that Noble Lent was revived and lived a few additional hours to be visited by his wife and loved ones before departing this life.

Other members of RADOPS on duty at the time or in other units were Harry Tyler, WØDRA - on the parade route but too far away to be of physical assistance; Lou Harrington, WØNEF - in the Oriental Band; Alan Hatfield, WAØKUM - in the German Band; Manual Lasky, WNØHDJ, and Dewey Johnson, WNØIVM - in the Thespians; and Stuart Edmonds, WØGW - in the Drum and Bugle Corps.

We were thankful the repeater was on.
(By Stuart C. Edmonds, WØGW)

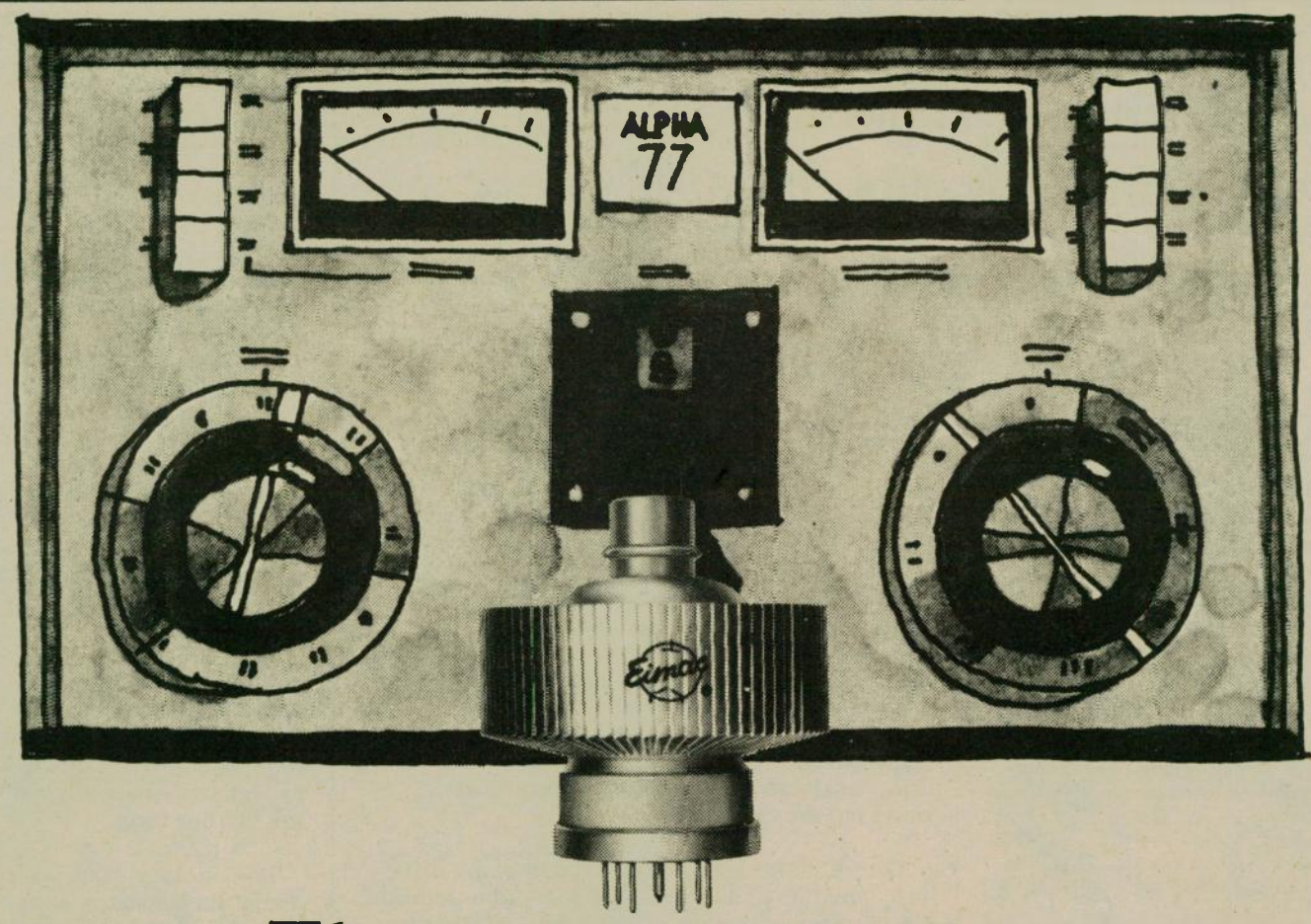
IDENTIFICATION

"Worldradio/NEWS" is published monthly by Worldradio Associates. Offices are at 2509 Donner Way, Sacramento, CA 95818 USA. Telephone: (916) 456-6725.

Subscription rates are - $5 per year, $9 for two years and $13 for three years.

Controlled circulation postage is paid at Sacramento, CA. This is the July issue.

The Post Office asks that the above statement be printed in the first five pages. The August issue is next, if you are a subscriber.



The no-compromise Alpha 77 is powered by the no-compromise EIMAC 8877.

No corners were cut in designing the rugged Alpha 77 amplifier. Rated for continuous commercial service, it loafs along at the maximum legal amateur power limit.

And, no corners were cut in designing EIMAC's air-cooled 8877 ceramic/metal, high-mu triode, the Alpha 77 power tube. The 8877 is conservatively rated at 1500 watts plate dissipation up to 250 MHz and requires less than 65 watts PEP drive signal for the legal power input limit. This impressive power gain is achieved with 3rd order intermodulation distortion products −38 decibels below one tone of a two equal-tone drive signal.

This compact, rugged, high-mu power triode has a maximum plate voltage rating of 4000 and a maximum plate current rating of one ampere in commercial service. While the 8877 is primarily designed for superlative linear amplifier service demanding low intermodulation distortion, its high efficiency also permits excellent operation as a class C power amplifier, oscillator, or as a plate modulated amplifier. The zero bias characteristic is useful for these services, as plate dissipation is held to a safe level if drive power fails, up to a plate potential of 3 kV.

The Alpha 77 is the ultimate power amplifier for the 70's. That's proven by the choice of the 8877, another example of EIMAC's ability to provide tomorrow's tubes today. For additional information on this tube or other products, contact EIMAC Division of Varian, 301 Industrial Way, San Carlos, California 94070. Phone (415) 592-1221. Or contact any of the more than 30 Varian/EIMAC Electron Tube and Device Group Sales Offices throughout the world.

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How to stay on the air

WHEN AN EMERGENCY STRIKES...

with a fully solid-state transceiver from SWAN.


(PHOTO COURTESY OF THE SAN DIEGO EVENING TRIBUNE)

That's right! Even if your area is struck with a massive electric power failure you can have full amateur band coverage, with up to 200 watts P.E.P. available, to relay emergency information or to call for help. A 12 volt battery, just like the one in your car, is all you need to operate a Swan solid-state transceiver.

Here's all you do to set up a home emergency station. Simply purchase a 12 volt automobile battery. Connect a Swan solid-state transceiver to the battery and your antenna. That's it! The station is ready to go on the air at any time – able to operate for several days – if necessary. Prepare now, to communicate in any emergency situation!

HINT:— Add a battery charger to a battery-powered solid-state home installation and you can regularly operate more efficiently. It'll cost less than most A.C. power supplies. Even Swan's big SS-200 transceiver takes very little power drain from a battery – less than 500 ma on receive and averages about 6 amps when transmitting on single sideband (as low as 0.8 amps average, to transmit SSB on the SS-15).

Another thought – a solid-state mobile installation can mean a savings of up to $140.00 when compared to the special D.C. power supplies that must be purchased for mobile use of conventional tube-type transceivers.

Now is the time to join the new age of amateur radio electronics by selecting a new fully solid-state Swan transceiver. Every model of the "SS" series features: NO TRANSMITTER TUNING, INFINITE VSWR PROTECTION, CONTROLLED NOISE BLANKING, BUILT-IN VOX, and more. Just 10% down will put an all-solid-state rig in your ham shack, when you use your Swan Revolving Credit Service account. Why wait? Order yours now!!


SS-100

Join the New Age of Amateur Radio Electronics! Equip your ham installation with one of these fine New Fully Solid-State Transceivers . . . each model operates directly from any 12 volt DC supply:

SWAN SS-200 (200 Watts P.E.P.) . . $779.00
SWAN SS-100 (100 Watts P.E.P.) . . $699.00
SWAN SS-15 (15 Watts P.E.P.) . . . $579.00

If you must operate from a 115 volt AC source, order one of these power supply units:

SWAN PS-20 (For SS-200/SS-100/SS-15) $139.00
SWAN PS-10 (For SS-100/SS-15) . . $ 89.00

AVAILABLE ACCESSORIES INCLUDE:

SWAN 610X (Crystal Controlled Oscillator) . . . . . $ 53.95
SWAN SS-16B (Super Selective Filter) . . . . . $ 79.95
SWAN SS-208 (External VFO) . . . $159.00
SWAN SS-1200 (1200 Watt P.E.P., tube-type, Linear amplifier $299.00

NEW, ECONOMICAL, FULLY SOLID-STATE MONOBANDERS!!

Featuring many of the circuitry designs of the multiband units described above, these 15 Watt P.E.P. input transceivers will give years of reliable service. Operate directly from 12 volts DC with no tune-up time required. SSB and CW modes, transmit ALC, smooth AGC, S-Meter, and no transmitter tuning to mess with. Includes infinite VSWR protection feature.

SWAN MB-40 (7.0 to 7.3 MHz) . . . $249.95
SWAN MB-80 (3.5 to 4.0 MHz) . . . $249.95

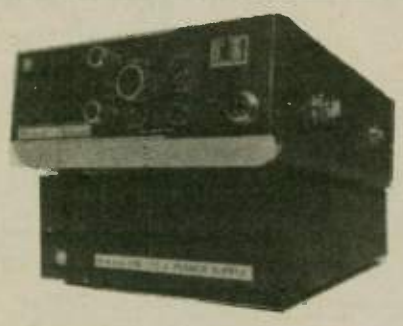
MONOBANDER ACCESSORIES INCLUDE:

Your choice of solid-state amplifiers to boost your range. Usable on any single band from 3 to 30 MHz with the appropriate plug-in filter. Price includes one filter. Please specify band when ordering.

SWAN MB-100 (100 Watt P.E.P.) . . $139.95
SWAN MB-200 (200 Watt P.E.P.) . . $209.95

ACCESSORIES:

SWAN WM-1500 In-line Wattmeter 5, 50, 500 & 1500 Watt scales . . . $49.95
SWAN 600S — Speaker $21.95
SWAN 600SP — Deluxe speaker with phone patch $64.50
SWAN 600R — CW Filter $29.50
SWAN 600R — AM Filter $39.95
SWAN 14-117 — DC Power Supply $139.95
SWAN 510X — VFO $53.95
SWAN 508 — VFO $159.95
SWAN 210 — VFO $109.95
SWAN 160 — VFO $119.00
SWAN VX-2 — VOX $35.95
SWAN FP-1 — Phone Patch $48.95
SWAN NS-1 — Noise Blanker $39.95
SWAN 444 — Desk Mike $28.50
SWAN 404 — Hand Mike $21.95



SWAN FM1210-A — 144 channel combinations are provided through independent switching of 12 transmit and 12 receive frequencies with eight crystals installed. Dynamic microphone included. Covers 144 to 148 MHz $319.00
SWAN FM1210-A — Pedestal type AC Power Supply $49.95
SWAN VHF-150 — 2 Meter Linear Amplifier. 180 Watt P.E.P. Built-in 117 or 230 volt AC power supply. $299.95
SWAN 14C — DC Converter, adapts to SWAN VHF-150 for mobile operation. Also converts 117XC and 230XC to operate with a 12 volt DC source $69.95

— Buy where Hams are always helping Hams, that's SWAN ELECTRONICS!!

Use the nearby coupon for specifications and complete details about the full line of amateur radio products available from **SWAN ELECTRONICS.** No one else manufactures such an extensive array of ham equipment. *AND,* only SWAN offers you their own Revolving Credit Service Plan. SWAN will personally handle the financing of your purchase from beginning to end in full confidence.

SWAN ELECTRONICS
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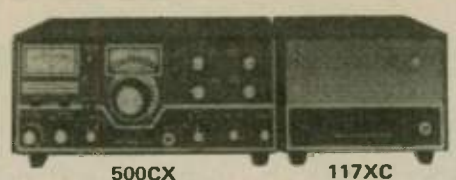
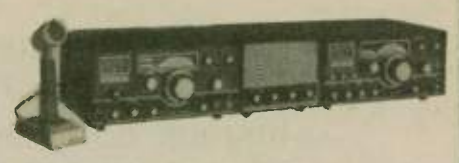

500CX 117XC

SWAN 500-CX — 500 Watts P.E.P., SSB/CW/AM Transceiver. Covers all amateur bands 80 thru 10 Meters $529.95
With 6S-16B Super Selective Filter included $589.95
SWAN 117-XC — 117 volt AC Power Supply $109.95
SWAN 230-XC — 117 to 230 volt AC Power Supply $115.95

SWAN 270B — 260 watts P.E.P. SSB Transceiver. Built-in speaker/AC power supply. 3.5 to 29.7 mHz . . $469.95
With SS-16B $529.95



SWAN 600T — 600 watts P.E.P. 10 to 80 Meter Transmitter $589.95
SWAN 600R — Companion Receiver for 600T. $439.95
Custom 600R $545.95
Custom with SS-16B $599.95


1200X

SWAN 1200X — 5 Band Linear Amplifier. 1,200 watts P.E.P. Built-in power supply. $259.95
SWAN VHF-150 — 2 Meter Linear Amplifier. 180 watts P.E.P. $299.95
SWAN MARK II — Linear Amplifier. 2,000 watts P.E.P. 10 to 80 Meters $679.95
SWAN MARK 6B — Linear Amplifier. 2,000 watts P.E.P. 50 to 54 mHz $679.95

Mail to: SWAN ELECTRONICS, 305 Airport Road, Oceanside, CA 92054

Gentlemen: I read your advertisement. Please send me:
☐ Data on your New solid-state units. I am interested in your
☐ SS-200, ☐ SS-100, ☐ SS-15, ☐ MB-40, ☐ MB-80,
☐ Credit Application, ☐ Other_____

Name:_____ CALL:_____
Address:_____
City:_____ State:_____ Zip:_____

'Hams' Conduct Field Day Tests

Members of the Reading Radio Club conduct a Field Day test... tions from their communications trailer parked at the ... Saturday. Left to right, are John J. Freeman, ... Stamm, 1540 Argonne Road, vice presi... Bernville R.D. 2, board chairm... cise for "hams." ... operators ...

more than 2,200 stations from coast to coast will be ... in the 24-hour ...

Ham Operators Test Emergency Radio Net

A major preparedness test of emergency radio relay communications throughout North America gets under way this weekend on top a remote, 1,400-foot mountain peak with... town Me-...

operators throu... North America ... taneously par... in the same ... practice ... said P... presi... Clu...

For 24 hours this weekend members of Purdue's Amateur Radio Club will take part in a nationwide exercise to demonstrate amateur radio's ability to work under ... d emergency condi... e public is ...

Radio Clubs To Join in Crisis Drill

The Virginia A... Association ... Ama...

Field Day for Hams To Test Readiness

WASHINGTON (AP) — Amateur radio operators will hold their annual emergency preparedness exercise today and Sunday from Nova Scotia to Hawaii and the Yukon to Puerto Rico.

12,000 and 15,000 hams will participate, as in the past. This is the 37th annual field day that has been held regularly except for a break during World War II.

This year, for the first time, many groups will be setting up ... to make contact ... amateur radio ... 6. This is the ... ordinary ... king part ... vities.

'Hams' Will Have Disaster Practice Day

Amateur radio operators (ham's) throughout the United States and Canada will put their skills to work in a giant-size disaster practice during a 28-hour field day starting 12 ... Saturday, June 23.

The ham's ... from mountai... fields, from ... rators and batte...

According to o... ham's, Doug Gl... ing an amateu...

ceiving and transmitting the desire to work ... to communic... tan...

Ham Operators Test Emergency Radio Stations

Ham Emergency Test Contest

The ham radio operators of St. Petersburg joined their colleagues all over ... try over the ...

Fluxe W8BLSV, Wheeling; Harold S. Davis W8EOY WN8OTN, Paul Medley WA8NFA, Barnesville; Martin Potts WB8HZX, James L. Wilson ... Ady WA8EGG, Woodsfield; George B. Sav... bridge; Greg L. Ickels, WB2CIR-8 Quaker ... W8AOX, McConnelsville; Loggers, ... Theaker, Bridgeport.

Several foreign amateur station... they need in the U.S. for their ... operators have their ears str... following exchange. ... W8FYF portable eigh... Hotel in Moscow, Russia ...

Hams Spin Dials in Mock Crisis

By Thomas J. Lee
of The Journal Staff

"C-Q field day. This is W-A-9-T-X-E portable 9. W-A-9-tan-go-X-ray-echo. Over."

"W-A-9-T-X-E portable 9, this is W-6-H-L portable 6. That's whisky-6-hotel-lima. You are 59 in the San Fernando section. Over."

"Roger. Q-S-L the 59. You are 59 in Wisconsin. Thanks for the point and good luck in ..."

W-A-9-T-X-E ... R-zed? ...

Milwaukee Amateur Radio Club, chalked up another score.

By noon Sunday, 1,000 such scores will have been ... ed, indicating ... contact... ateur ... the prec...

Their ... ercise fo... ness, in ... 000 hams ... The event ... National ... Radio Relay ... To simulat... emergenc...

sleeping and eatin... exchangi... ha...

... saving lives and p... any instances. Whe... Nicaragua was ... December by an ... a ham radio ope... while power ... vn.

Disaster Courted By Ham Operators

New Haven area ham radio operators will be aiming at the sky this weekend as part of an annual disaster drill.

hams will use their new Emergency Communications facility. It is a modified mobile office — a trailer — that members of the Hamden Amateur Radio Association (HARA) dubbed the Ha...

... ham here was ... a colleague in ... sent word ... seve... have...

Field Day, as the 24-hour drill is called, begins Saturday afternoon at 2 and will last 24 hours. Operations will be ... on Baldwin ...

'Hams' Ready for Weekend Emergency

Alaska and Hawaii, compete as groups or individuals under a complex scoring system to contact as many stations as they can under simulated emergency conditions, using "home-made" antennas and improvised shel...

The Emergency Coor... McDonough WA8KPN, ... ticipating in the oper... Ferry; Ray Offord ... Sommers, WA8ZB... WB8ITV, Leslie ... Brideport; Ben ... Also, Willis... WN8PTK, ...

...our county area, Ralph ... al amateurs as par... WB8ILL, Martins ... ZNG, Willard ... neth Turner ... WN8PKR, ...

...y called, have ... information ...

...r phonetics ...ation and ...gue, with ...e yearly ...hile nor... a com... signal ...

Radio Groups To Conduct 'Disaster'

For members of the Friendly Amateur Radio Transmitting Society and the Central Arkansas Radio Emergency Net, "disaster" will strike this week end.

Members of the two groups will join more than 12,000 amateur radio operators throughout the ...ntry for an intensive 27-... ...ent and

...ed by ... Pulay ... Barry G. ... radio net... in coordinating ...th the Red Cross, ...ivil Defense, police ...nd other authorities in ...imes of crisis, Seigle said.

During last year's test, he continued, the Aerojet Club made nearly 1,000 brief r... contacts in 47 stat... the United States ... e provinces ... ing bo...

Hams to conduct emergency test

Cincinnati area radio amateurs will take part in 24 hours of continuous field operations beginning tomorrow afternoon, during the Queen City Emergency Net's emergency test.

Three complete amateur stations will be in operation on the farm of Jack Thornell W8BZN, at 10707 Pottenge... road, Colerain Towns... using power from a ... emergency generato...

John Din... president, sai... purpose be... to provi... equip... sk...

Cincinnati area, Cincinnati Police range, at 10139 ... off Grant str... Heights, be... Sunday. ... free. ... acc...

Eastern Ohio Radio 'Hams'

...ELD DAY, this is Whiskey Eight Fox-trot Yankee Fox-... ...ght calling", ...table eight, this is Whiskey Four Delta Delta ... four, this is W8FYF portable eight, you are ... how copy?" ...

...9 Florida, good luck in the ... ful language. The ... ght Farm in ... Monroe, Guer... eivers fro... their own ... year ... tions.

"Hams", as most radio amateurs ... developed a special langua... under unfavorable ...

Hams Hope 'Disaster' Isn't Real This Time

Reading's amateur radio operators are hoping that this year's test of emergency operations does not suddenly become a real disaster necessity.

As the Reading Radio Club was planning last year for the annual nationwide Field Day, an emergency communications exercise for "hams," Tropical Storm Agnes struck and emergency communications became a reality. Members of the Reading Amateur Civil Emergency Service provided the only available communication between Reading and Wilkes-Barre during the flood, noted Marguerite V. Osman, Berks County Civil Defen... director.

Saturday, June 23, the amateur operators again will set up their shortwave sets, antennas and power generators to participate in this year's 37th annual Field Day.

Emergency contacts will be made between over 12,000 U.S. and Canadian operators, with Reading area participants broadcasting from the tower pavilion atop Mt. Penn, ... Arthur Gantert, mem... the club, who ... turnout of as ... Reading ra... Spo... Eq...

equipment and skills needed to assist the Red Cross, civil defense, police and ... utilities when nor... munications are no... ing natural ... conti... Readi...

Ham radio group to test emergency network

Lake County Amateur ... will join amateur ...hout the coun... Saturday. "field ... ra... ...ed ...ry

site with no permanent radio installations. They are to run completely on emergency power, such as gasoline generators and batteries.

The Lake County club will broadcast from the south side of Andrean High School beginning at 1 p.m. Saturday. The public is invited to observe.

Field day will test the ability of amateur radio stations to provide communications during an emergency when normal communications might be inoperative.

Ham's Assistance Led to African Trip

How difficult would it be to arrange a trip to Africa that would include an audience with the president of Liberia, meetings with several top government officials, and a courtesy tour of the country.

Ask Charlie Wells, an amateur radio operator (K4SKI) whose skills as a "ham" enthusiast helped ease a recent Liberian emergency and lead to such a visit.

Wells, who lives on Rt. 8, Greenville, has been involved with amateur radio work as a hobby since 1957 and during those years has had radio and written contact with hundreds of fellow radio bugs, both in the United States and abroad.

Routine contacts have included radio exchanges with several members of the Liberian Radio Amateur Association.

On April 5, Wells explained, he received a radio call from an LRAA member, David Urfer, a missionary attached to Zorzor Hospital in the bush country of Liberia, informing him that there was an outbreak of a disease that doctors there were unfamiliar with and asking him to contact the Disease Control Center in Atlanta for assistance.

Doctors in Zorzor, Wells noted, had called the John F. Kennedy Hospital in Monrovia, Liberia but officials there knew little about the disease. Radio contact between Liberia and the United States proved to be time saving after he established communications with the Atlanta facility, a government-operated hospital that specializes in diagnosis of unfamiliar diseases in the free world. Wells called the DCC and set up direct communications via his radio between Atlanta doctors and physicians in Zorzor. Symptoms were discussed over the "patched" radio-telephone call and arrangements for specimens to be mailed here immediately were made.

Three years earlier, it was pointed out, an epidemic had struck in Lassa, Nigeria, and through a survivor of the "Lassa Fever" a serum had been obtained. When the Disease Control Center diagnosed the Zorzor epidemic as Lassa Fever, Wells made another radio call to Liberia and Atlanta doctors discussed their findings with Zorzor physicians.

Plans were made to fly in the serum from Nigeria and the Zorzor community was inoculated in an effort to stop the spread of the epidemic.

"Out of 15 people who had the fever in Zorzor," Wells commented, "only seven survived. But the important thing was that the serum prevented the disease from spreading."

The entire process took about a week, he noted, citing the quickness of the radio contact.

Charlie Wells

One of those who died during the epidemic, Wells mentioned, was an American nurse, Miss Esther Bacon of Hauarden, Iowa.

In May, the Greenville operator received a personal letter from W. R. Tolbert, Jr., President of Liberia, saying, "Through the Liberian Radio Amateur Association I learned how helpful you were when Mr. David Urfer, a member of the...association contacted you for assistance."

The president continued, "I understand from Mr. Walcott Benjamin, president of the. . . association that it was through your assistance that contacts were established with a hospital to which the late Miss Esther Bacon was to have been admitted for treatment of Lassa Fever."

The letter added, "I want to assure you that the people of Liberia and I highly appreciate your kind help in bridging the communication gap which was urgently needed at the time of your assistance."

"I had wanted to visit Liberia and meet some of the people I had talked to on the radio even before I got the letter but I hadn't been able to work things out," Wells pointed out.

Arrangements were made, however, and his employers at Long Manufacturing Co. in Tarboro gave him an extension of his vacation time in order to make the lengthy trip. "The company was real happy that I would be able to go and gave me some extra time off," he explained.

Wells told his radio buddies in Africa that he would make the trip but other than that, he expected to make arrangements and pay all expenses himself.

"I got my passports and everything and arranged for an excursion flight," he continued. Wells left Raleigh-Durham Airport on November 20.

His first stop in Africa was on the western coast at Dakar, the Capital of Senegal, where he was met by six representatives of the amateur radio association. From there, the LRAA completely planned his visit, Wells said, and "took me on a trip that I could not have bought with money, only friendship."

Following an itinerary arranged by LRAA, Wells spent only six hours at Dakar and then flew to Roberts International Airport at Monrovia, Liberia.

Here, he recalled, he had lunch with a long-time radio buddy, Walcott Benjamin, who is also president of the LRAA.

Four days were spent in Monrovia and among the items on the itinerary there were: a courtesy call with the Minister of Health and Welfare; a call meeting at LRAA Headquarters; a courtesy call with Executive Officer of Telecommunications; a visit to the Bong Mines and a tour of the mine site; a Thanksgiving Day visit to the Voice of America site at Careysburg and dinner there; and a buffet dinner hosted by Benjamin.

On the third day of the visit, one of the highlights of the African trip took place, he remembered. In addition to a courtesy call with the Chief Justice of Liberia, the LRAA arranged an audience for Wells with President Tolbert.

On Friday, November 24, Wells met with doctors who had been involved in the Lassa Fever dilemma and later in the day paid a visit to a Liberian oil refinery, visited the Mesurado Fishing Complex, and was given a tour of Monrovia.

During his visit with the Minister of Health and Welfare, Mrs. Mai Padmore, Wells was decorated for his role in helping to control the Lassa Fever epidemic. Mrs. Padmore honored him with the distinction of Knight Official in the Humane Order of African Redemption. The honor was conferred on behalf of President Tolbert, it was pointed out.

After leaving Monrovia, Wells traveled to Abidjan, the capital of the Ivory Coast where he spent one day, and then on to Lome in the country of Togo where three full days were spent touring and visiting with African "hams".

"From Togo," he continued, "I flew over to Natitingou in Dahomey for a two-day stay and then flew from there to Niamey, Niger." He went from Niamey up the Niger River to Tillabery and from there visited famous Timbuktu in the country of Mali.

The trip back "down" from Timbuktu, Wells noted, brought him again to Tillabery and then to Gaygay, Nigeria. After arriving again in Lome, Togo, wells rode by land rover over to Accra, the capital of Ghana on the Gold Coast of the Gulf of Guinea.

Wells left at 9 a.m. on December 7, he recalled, and arrived back at Raleigh-Durham Airport on December 8, after some 17 days out of the country.

"I paid for the cost of the flight ($656) but they wouldn't let me pay for anything over there," he said. He explained that he brought back "about 87 pounds" of various souvenirs, items that his hosts insisted on paying for.

Wells said that nights were spent in the homes of LRAA members "and everyone of them and their families were wonderful. They made their radios available to me whenever I wanted to use them." Two ham operators were "on station" in Greenville each night and he kept in contact with his hometown through them, he said.

While in Africa Wells said he took approximately 600 feet of film and close to 400 slides of "everything I saw," including shots of elephants, giraffes, monkeys, water buffalo, and antelopes, as well as the people and countryside wherever he went.

"One thing that I found interesting was the temperature in various parts of the country, especially in the Sahara Desert where it got down to 62 degrees," Wells noted.

He emphasized the educational

(Turn to page 15, please)

NEW!!

"Cloverleaf"...

SBE-450 TRC TRANSCONVERTER

instant access to 450 from 144

Now . . . SBE opens up a new high speed route that leads to instant 450MHz operation from any 2 meter transceiver! Rev up—switch in the exclusive SBE, SB-450TRC "Cloverleaf"—arrive instantly on 450! Return at will!

Installation couldn't be more simple. Outwardly, "Cloverleaf" is a small black box that connects between your existing 144 MHz FM transceiver and its antenna, also to the microphone and car 12 volt battery. You plug the 450MHz antenna into another receptable provided. SB-450TRC has no external tuning, no controls other than a switch that allows instant shift between the 144 and 450MHz ranges. No mods are necessary. **Your existing 144MHz transceiver remains intact.**

Transmitter-wise, SBE "Cloverleaf" is entirely **passive—draws no DC power yet delivers 40% of the RF drive at three times the frequency.** Example: 4 watts out on 450 MHz for 10 watts drive on 2 meters. This high efficiency frequency multiplication is accomplished by a power varactor diode in conjunction with multiple high Q tuned circuits. The 450MHz output is of course frequency modulated; overswing, due to frequency multiplication, being compensated by a fixed pad in the microphone circuit within the unit.

Receiver-wise, "Cloverleaf" has a front end with unity conversion gain that converts 450MHz band signals to I-F frequencies corresponding to 144MHz channels. Limiter, discriminator, output audio and loud speaker in the 2 meter transceiver continue to function in the usual manner.

Mobile wise, this all-solid-state transceiver is ideal—a compact box that can mount wherever space is available. "Cloverleaf" current drain is negligible.

Price-wise, this SBE high value/performance breakthrough represents worthwhile savings over the cost of a complete 450MHz transceiver with comparable characteristics. Truly, SBE has done it again!

SBE

Unit with covers removed

LINEAR SYSTEMS, INC. *220 Airport Boulevard, Watsonville, Calif. 95076*

CT5005 CALCULATOR

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

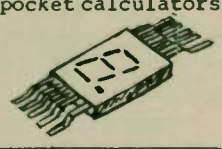
12 digit display and calc.
fixed decimal at 0,1,2,3,4, or 5
leading zero suppression
seven segment multiplexed output
true credit sign display
single 28 pin chip

Chip and data----------$14.95
Data only (refundable)-------- 1.00

MAN 3M

This low cost epoxy encapsulated LED is capable of displaying 10 digits, 9 distinct letters, and bears solid-state reliability, making it compatible with standard digital IC's. Its compact spacing(5 digits per inch), makes it ideal for pocket calculators

Each, only $3.00
Ten or more 2.50



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 overflow indication. Fixed decimal point at 0, 2, 3, or 4 Leading zero suppression. Complete data supplied with chip.

Chip and data, only $9.95
Data only (refundable) $1.00

LED SPECIAL

FL100 .39 each
3.50 for ten
29.95 for 100

SOCKETS

Dual-In-Line 14 pin 40¢ each
16 pin 45¢ each

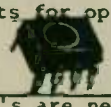
High quality, gold plated

DM8880(Sperry DD700 202) 7 segment high voltage nixie driver, only $1.75

MC1013 ECL 85mc ff	$1.00
MC1023 ECL driver	2.00
MC1039 ECL-TTL interface	2.00
8850,9601-one shot multivibrator	1.00

741 SPECIAL

fully compensated operational amplifier with data sheet and page of application notes covering the basic circuits for op-amps.



each $ .45
ten for 3.75

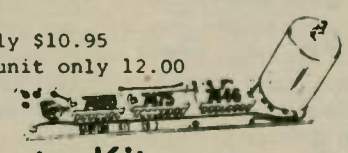
All IC's are new and fully tested leads are plated with gold or solder Orders for $5 or more will be shipped prepaid. Add 35¢ for handling and postage for smaller orders, residents in California add sales tax. IC orders are shipped within two workdays of receipt of order-kits are shipped withen ten days of receipt of order. $10.00 minimum on C.O.D.'s(phone in). (916) 9662111

Babylon Electronics
PO Box "J"
Carmichael, CA 95608

CD-2 Counter Kit

This kit provides a highly sophisticated display section module for clocks, counter or other numerical display needs. The unit is .8" wide and 4 3/8" long. A single 5 volt power source powers both the IC's and the display tube. It can attain typical count rates of up to 30 MHz and also has a lamp test, causing all seven segments to light. Kit includes a two sided(with plated through holes) fiberglass printed circuit board, a 7490, a 7475, a 7447, a DR2010 RCA Numitron display tube, complete instructions, and enough Molex pins for the IC's.....NOTE, boards can be supplied in a single panel of up to ten digits (with all interconnects) therefore, when ordering please specify wether you want them in single panels or in one multiple digit board Not specifying will result in shipping delay

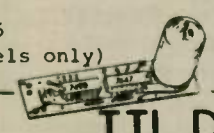
Complete kit, only $10.95
Fully assembled unit only 12.00



CD-3 Counter Kit

Can be programmed to count to any modulus--2-9 for one kit, 2-99 for two kits, etc. Includes everything as in CD-2, two resistors, three diodes, but is without the 7475 quad-latch. Full instructions included----perfect for displaying seconds, minutes, hours, etc.

Complete kit, only $9.95
(supplied in single panels only)



8000 series TTL DIP

8200	4 bit comparator	$1.60
8210	8 line to 1 line selector	1.40
8220	parity generator/checker	1.00
8223	256 bit programmable ROM	7.50
8230	8 input multiplexer	2.00
8233	2 input 4 bit multiplexer	1.75
8242	4 bit comparator	1.15
8251	BCD to decimal decoder	1.00
8261	fast carry extender	2.00
8266	2 input 4 bit multiplexer	1.50
8270	4 bit PI, SI, SO	2.00
8271	4 bit shift register	2.00
8274	10 bit PI, SO register	3.00
8280	45MC presetable decade counter	1.35
8281	45MC presetable binary counter	1.15
8290	presetable decade counter 75MC	3.50
8292	presetable decade counter 10MC	1.15
8520	25MC divide by "N" 2 to 15	2.00
8551	tri state quad latch	2.50
8570	8 bit SI, PO	3.00
8590	8 bit PI, SO	2.00
8275	quad bistable latch	.90

LINEARS

NE531	op amp TO-5	$2.00
NE560	phase lock loop DIP	3.25
NE561	phase lock loop DIP	3.25
NE565	phase lock loop TO-5	3.25
NE566	function generator TO-5	4.00
NE567	tone decoder TO-5	4.00
NE5556	op amp DIP	1.00
709	popular op amp DIP	.45
710	voltage comparator DIP	.50
711	dual comparator DIP	.40
723	precision voltage regulator DIP	1.00
747	dual 741 op amp DIP	1.00
748	op amp TO-5	1.00
LM100	positive DC regulator TO-5	1.00
LM302	op amp voltage follower TO-5	1.25
LM308	op amp TO-5	2.00
LM311	comparator TO-5	1.75
LM380	2W audio amp DIP	1.75
LM703	RF-IF amp epoxy TO-5	1.00
LM309H	5V-200ma power supply TO-5	1.00
LM309K	5V-1A power supply module TO-3	2.00

Silicon diodes (signal) only,
1 foot (60) diodes $2.50

EPOXY TRANSISTORS

TO-5 and TO-18 mixed 1 ounce (40+)-----$1.00

1 amp Silicon Rectifier
minimum 200 PIV many much higher, comes in unbranded epoxy case (fully tested)
15 for $1.00

MOS by NATIONAL

Dynamic shift registers TO-5 only				
MM502	dual	50	BIT	$1.25
MM506	dual	100	BIT	1.75
MM5006	dual	100	BIT	1.50
MM5013		1024	BIT	2.25
MM5016		512	BIT	1.50
Static shift registers				
MM504	dual	16	BIT	1.50
MM505	dual	32	BIT	1.75
MM550	dual differential analog switch			2.50

CMOS

CD4001	quad 2-input	$ .75
CD4002	quad 4-input	.75
CD4012	dual 4-input	.75
CD4023	triple 3-input	.75

DR2010 by RCA

A popular Numitron digital display tube. This incandescent five volt seven segment device provides .6" high numeral which can be seen at a distance of 30 feet. The tube has a standard nine pin base (solderable) and a left hand decimal point.

$5.00 each
$4.00 each for 5 or more

7400 series DIP

7400	$ .35	74H53	.50
74H00	.50	7454	.35
7401	.35	74L54	.50
74H01	.50	74L55	.50
7403	.35	7460	.35
7404	.35	74L71	.30
74L04	.50	7472	.50
74H04	.50	74L72	.60
7405	.35	7473	.65
74H05	.50	74L73	.90
74H08	.50	7474	.65
7410	.35	74L74	.90
74L10	.50	74H74	.90
74H11	.60	7476	.70
7413	1.15	74L78	1.00
7420	.35	7480	.65
74L20	.50	7483	1.30
74H20	.50	7486	.80
74H22	.60	7489(8599)	3.50
7430	.35	7490	1.50
74L30	.50	7491	1.15
7440	.35	7492	1.15
74H40	.50	7493	1.15
7441	1.60	7495	1.25
7442	1.30	74L95	2.00
7446	1.75	74107	.70
7447	1.75	74121	1.60
7448	1.15	74123	2.00
7450	.35	74153	2.00
74H50	.50	74181	3.75
7451	.35	74192	2.50
74L51	.50	74193	1.50
74H51	.50	74195	1.10
7453	.35		

LED's

MV-50 red emitting 10-40ma@2V $.39

MV5020 red LED  .45

MV-10B Visible red 5-70ma @ 2V .45
3.5 amp 400V rectifier $1.25
8 amp 400V SCR IR 122D 1.00

Precision resistors-high quality parts manufactured by Dale, Corning Pyro film, Etc. These are all brand new with full length leads.

82	5% Dale 6.5W WW	$ .15
18.2K	1%	.05
20.5K	1%	.05
22.5K	1%	.05
26.1K	1%	.05
36.1K	1%	.05
36.5K	1%	.05
40.2K	1%	.05
49.9K	.05%	.10

220 MHz

In the Matter of

Docket 19759
The creation of a new class of Citizens Radio Service and the reallocation of frequencies between 224 MHz and 225 MHz in the band 220-225 MHz now allocated for shared use by stations in the Amateur Radio Service and Government Radiolocation Stations for that purpose.

NOTICE OF INQUIRY AND NOTICE OF PROPOSED RULE MAKING
Adopted: June 6, 1973
Released: June 12, 1973

By the Commission: Commissioners Johnson and Reid concurring in the result.

1. Notice is hereby given in the above captioned matter.

2. The following petitions have been received which are applicable to this matter:

a. RM-1633 (Wayne Green petition) filed May 25, 1970 -- Proposes to make part of the 220 MHz amateur band available for "Hobby Class" amateurs and to limit 27 MHz Citizens Band operations to "business and personal business" use.

b. RM-1656 (Reed Electronics School petition) filed June 24, 1970 -- Proposes to move Citizens Band from 27 MHz to the 220 MHz amateur band and to return 27 MHz frequencies to U. S. Government.

c. RM-1747 (EIA petition) filed February 5, 1971 -- Proposes a new "Class E" Citizens Band service between 220 and 222 MHz; 80 channels; 25 kHz channels; 100 watts maximum power. Would not alter Rules for 27 MHz Citizens Band.

d. RM-1761 (F. C. Hervey petition) received February 26, 1971 -- Proposes to shut down 27 MHz Class D Citizens Band as now provided in "Parts 95 and 15" temporarily and reassign frequencies "to those Mobile Radio Services in greatest need"; and to create a new "Hobby/Personal Radio Service" in parts of the 220-225 MHz band as a substitute for present Class D Citizens Band.

e. RM-1793 (George Jacobs and Stewart Meyer petition) filed May 10, 1971 -- Proposes to establish a new "VHF Radiotelephone License" in the Amateur Radio Service anywhere above 144 MHz (suggests 221-224 MHz); phone only; 100 watts maximum power; no code test. Would not change Citizens Band rules.

f. RM-1841 (United CB'ers of America) filed July 1, 1971 -- Proposes to use 27 MHz for "Hobby (Class H)" use only; transfer "all emergency and call channel operations" to 220 MHz.

3. All of the foregoing petitions propose, in various ways, Citizens Radio use of a portion of the band 220-225 MHz and will be considered in this proceeding. The most detailed petition was submitted by the Electronic Industries Association (EIA). As proposed by EIA in RM-1747 a new Class E category in the Citizens Radio Service would be created for the same type of use now authorized to Class D category stations, i. e., personal and business radiocommunications. As proposed, the Class E category would provide 80 FM channels occupying 2 MHz within the 220-225 MHz frequency band. Channels would be allocated for specific types of communications, e.g., intrastation, inter-station, business, weather advisory, emergency, marine, in-plant, traffic control, etc. Most Class E stations would be authorized 25 watts power output. A small number of channels would be reserved for one watt, local use stations. Certain public safety agencies would be licensed to operate Class E stations at 100 watts for use in emergencies. Antenna structures could be either 20 feet above the nearest man-made or natural object within 500 yards, or 60 feet above existing terrain. Licensees would be required to notify the Commission and the Federal Aviation Administration should antenna height exceed the maximum permitted near airports. The petition proposes a simplified licensing procedure which includes self-assigned station call signs. The petition further proposes that a station could be placed into operation immediately upon filing of the application and, should the Commission fail to act upon the application within 30 days, the license would automatically become validated. While the petition does not contain an estimate of the size potential for the proposed Class E category, informal estimates run as high as 10 million licensees. The Commission is also in receipt of considerable correspondence both in favor and in opposition to the reallocation of the band for any uses other than are now authorized. The American Radio Relay League, Inc., (ARRL) has filed a petition in opposition to that of EIA (RM-1747) requesting denial of the EIA petition and that the Commission issue a notice of inquiry inviting suggestions and proposals for increasing the efficiency and effectiveness of the Citizens Radio Service.

4. The band 220-225 MHz is currently allocated internationally in Region 2 to the Amateur and Radiolocation services on a co-equal basis. Nationally, however, Radiolocation is the primary service and Amateur the secondary service. The latter service is further constrained by footnote NG13 to the national Table of Frequency Allocations specifying that in an area in Texas and New Mexico about 175 miles wide and 110 miles in latitude centered essentially on the White Sands Missile Range, normal amateur operations are not permitted in the band between 5:00 a.m. and 6:00 p.m., Monday through Friday. In view of the Government use of the band for radiolocation, the Commission has inquired as to the possibility of the band being shared with some form of Citizens Radio Service operations. The Director of the Office of Telecommunications Policy has advised that sharing to accommodate additional operations of a disciplined Citizens Radio Service would be practicable in the band 223-225 MHz. Such use would be subject to reception of possible interference from radiolocation operations, particularly in coastal, North Central and the Northwestern areas of the United States. Moreover, operations would not be permitted between the hours of 5:00 a.m. and 6:00 p.m., Monday through Friday in the areas around the White Sands Missile Range, New Mexico, and in Franklin and Gulf counties in northwest Florida. These limitations, as well as the views of the Director, Office of Telecommunications Policy on this matter, are set forth in Appendix 2 of this Notice. (Letters dated August 19, 1971 and March 29, 1972, with attachments).

5. As implied above, the use of a portion of the band 220-225 MHz for other than Amateur or Radiolocation services would be a derogation of the international Table of Frequency Allocations of which the United States is a proponent. Therefore, it is possible that objections from Canada and Mexico may require a prohibition against any other operations in some border areas. Pending resolution of that matter, mobile stations would be constrained from operations within ten miles of the border and base stations within 25 miles of the border. If suitable arrangements with Canada and Mexico can be effected, this prohibition may be modified to conform to the nature of the agreement.

6. The Citizens Radio Service was established by the Commission in 1945 (Docket No. 6651) as a radio communication service of fixed, land, and mobile stations intended for short distance personal or business communications, and for radio signalling and control of remote devices by radio. Due to a lack of suitable low cost equipment for the then existing Classes A, B, and C services, Citizens Radio grew slowly and reached a total of only 40,000 licensees by 1958. At that time it was decided to establish a Class D Citizens Service in the 27 MHz region to permit voice communications of a general or business nature. Although interference had to be accepted from Industrial, Scientific and Medical (ISM) equipment, to which the frequency 27.12 MHz was primarily allocated, it was believed the Citizens Radio Service, due to its relatively low priority, could nevertheless make effective use of the spectrum. Consequently, although not ideally suited to the short distance concept of the Citizens Radio Service because of its sporadic long distance transmission characteristics, the 27 MHz region was allocated for such use. It was expected that equipment operating in the 27 MHz band could be produced at considerably less expense than equipment operating in VHF or UHF bands. Growth has been phenomenal, with the number of licensees increasing from 49,000 in 1959 to 868,013 in 1971.

7. The 27 MHz Class D Citizens band is divided into twenty-three channels with seven channels authorized for communications between units of different stations and one channel to be used solely for emergency communications involving the immediate safety of life and the immediate protection of property, or communications necessary to render assistance to a motorist. A wide variety of communications is permitted in the Class D Citizens Service. As the number of licensees increased, however, so did complaints against the use of the service for the transmission of long duration base-to-base messages, hobby type communications, technical violations such as use of high-powered amplifiers, and general pollution of the spectrum. Such abuses resulted in certain prohibitions against the Class D CB Service, including: (1) communications as a hobby or diversion; (2) transmission of obscene, indecent or profane words, language or meaning; (3) communications not directed to specific stations or persons; (4) the transmission of advertising or soliciting the sale of any goods or services; (5) transmission of music, whistling, sound effects or any material for amusement or entertainment purposes; (6) communications about the technical performance of equipment; (7) relaying messages for a person other than the licensee or a member of his immediate family.

8. The Commission has been examining a number of various proposals directed toward promoting the effective use of the Citizens Radio Service or reducing the widespread Rule violations. These proposals will be the subject of further Commission inquiries and proceedings with regard to Class D enforcement problems. The immediate proceeding, however, will address only the possibility of allocating additional frequencies to meet the requirements of the general public for improved radiocommunication services not now effectively provided by the Class D Citizens Radio Service and, at the same time, relieve some of the heavy concentration of stations on channels available to the Class D service. Such stations constituted nearly 47% of the total number of radio stations authorized by the Commission, as of June 30, 1971.

9. The Commission proposes in this proceeding to establish a form of fixed and mobile service in the band 224-225 MHz. The band would be divided into 40 channels at 25 kHz spacing. Eligibility for this service would be similar to that for the present Class D service, i.e., any person eighteen years and older who meets the basic criteria for Commission licensing. However, the Commission does not intend that the abuses of its Class D rules, and associated enforcement problems, shall be extended to this new service. Accordingly, before this service is permitted to become operational the Commission will establish new Class E rules and enforcement procedures, based on the information provided in response to paragraph 10 of this Notice and such other relevant information as it deems appropriate.

10. With a view toward achieving

220 MHz

the above objectives regarding the reallocation of the band 224-225 MHz specific comments and substantiating data are invited on the following:

a. Specific services and types of operations which should be provided, including limitations and reasons therefor. Estimated growth over 10-year period.

b. Economic, sociological and other public interest benefits which would be derived.

c. Effect on Class D Citizens Band operations at 27 MHz.

d. Nature and probable impact of operational limitations imposed as a result of interagency and international objections or conditions of use.

e. Detailed technical parameters which should be adopted regarding equipment to be used, including detailed studies of extent of effective coverage and use to be expected in different environments such as urban areas with high density population. In addition, detailed recommendations should be made regarding total spectrum space required to meet various objectives, channeling, maximum power, antenna limitations, channel capability, frequency control, etc. Additional comments on recommended receiver characteristics are also invited, as well as estimated equipment costs to the user.

f. The feasibility, cost, operational use and potential effectiveness of automatic transmission of call sign or station identification as an aid to self or Commission enforcement, or for other purposes.

g. Appropriate measures to be followed regarding initial and updated registration of Class E operations for purposes of achieving efficient channel utilization, enforcement follow-up, etc.

h. The feasibility and desirability, including estimated social and economic impact, of phasing out either personal or business use of Class D service at 27 MHz in favor of the surviving use, in conjunction with the establishment of a new Class E service.

i. The feasibility, desirability, and legality of Commission confiscation, under certain conditions, of equipment operated illegally.

11. Any schedule for implementing the new radio service operations at 224-225 MHz will have to consider the availability to the Commission of budget allocations in order to provide for the additional administration and enforcement of rules. EIA has estimated that the proposed Class E Service could produce 10 million licensees. The Commission solicits comments on this and other estimates of total licensee impact as well as the methodology and/or calculations that support such estimates. Comments are also requested regarding possible procedures for licensing and enforcement which would minimize the administrative burdens resulting from such a large number of users.

12. In the event that a portion of the 220-225 MHz amateur band is reallocated to other services, detailed amendments to the rules governing all services involved will be developed and proposed after review of the comments received in response to this proposal. The proposed amendment of Section 2.106 (Table of Frequency Allocations) is set forth in the attached Appendix I.

13. Action herein is being taken pursuant to authority contained in Sections 4(i), 303 and 403 of the Communications Act of 1934, as amended.

14. Pursuant to applicable procedures set out in Section 1.415 of the Commission's Rules, interested parties may file comments on or before September 20, 1973, and reply comments on or before October 22, 1973. All relevant and timely comments and reply comments will be considered before final action is taken in this proceeding. The Commission, additionally, in reaching a decision in this proceeding, may also take into account other relevant information before it.

15. In accordance with the provisions of Section 1.419 of the Commission's Rules, an original and 14 copies of all comments, replies, pleadings, briefs, or other documents shall be furnished the Commission. Responses will be available for public inspection during regular business hours in the Commission's Public Reference Room at its headquarters in Washington, D. C.

By: Ben F. Waple, Secretary FCC

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Hardly Anything Stumps Young Ham

Kevin Fjelsted is a licensed ham radio operator. He likes to bicycle, cross-country ski, sail, and is active in high school theatre, both as an actor and a crew worker behind the scenes. He is 18 years old, likes his friends and distrusts politicians. He has a quiet, almost shy, but friendly manner, and in many ways is like any other 18-year-old. But with Kevin there's a difference: He's been blind since birth.

A senior at Mayo High School, he is the son of Mr. and Mrs. Robert Fjelsted of 1508 Woodland Drive SW.

Kevin doesn't consider his blindness a handicap, but more simply as a problem to be dealt with. "I don't really feel as though any doors have been closed on me in what I want to do in life," he says quietly. "I have more interests now than I have time for, and new things interest me all the time."

What sort of things? Things like the theater ("I never would have tried acting if I could have gotten on the technical crews"), and scuba diving, in which he'll complete his lessons and become a certified diver in a few weeks.

His main interest, however, is electronics.

"My father (an electrical engineer at IBM) actually kind of tried to discourage my interest in computers," he laughs, "but he couldn't. They're too interesting to me." Kevin has been a member of the Mayo High School Electronics Club for three years and a ham radio operator since he was in eighth grade. "But I don't usually broadcast, I normally like to just listen," he says.

He explains his interest in electronics this way: "People think electrical equipment and computers are so complicated, but they're really not that hard to understand. Once you get just the basics, you can do a lot of things, and you can have a lot of fun with this stuff. My friends and I have done some pretty weird things with our equipment." There was the time last fall he felt like riding his friend's 10-speed bike: "A couple of friends and I thought of a way I could safely navigate on my bike through downtown traffic, We rigged up a tape recorder and put it in the back of an open van. So at 10:30 that night I rode from Mayo High School to Erdman's supermarket by following the sound of a rock 'n roll tape playing very loud from the back of a van, with my friends leaning out and yelling at me when to turn, slow down and stop. People going by must have thought we were crazy!"

Kevin carries a heavy load of classes at Mayo, including physics, mathematics, television production (his favorite), and government. He has no time in his schedule to fit in a study hall, but it doesn't bother him. His only complaint: "Some of the things I'd like to read aren't available in braille. My cassette tape recorder has helped out a lot, though. My lecture tapes save a lot of time and energy, and my teachers have really been helpful."

His hopes for the future show a more serious side to his nature. After graduation from high school this spring, he would like either to work at IBM for the summer or spend time with his family at their cabin in northern Minnesota. He has been accepted at Augsburg College in Minneapolis, which he hopes to attend for two years before changing schools to eventually achieve "some kind of engineering degree." His dream is "to work on computers until I'm 40 and have made enough money, then to buy a sailboat and work in oceanography for the rest of my life."

. Kevin Fjelsted's optimistic outlook on life was summed up when he was asked if he realistically thought he could do it. He replied, with a smile, "I don't know. Just about anything can happen."
(From the Rochester, Minn. "Post-Bulletin")

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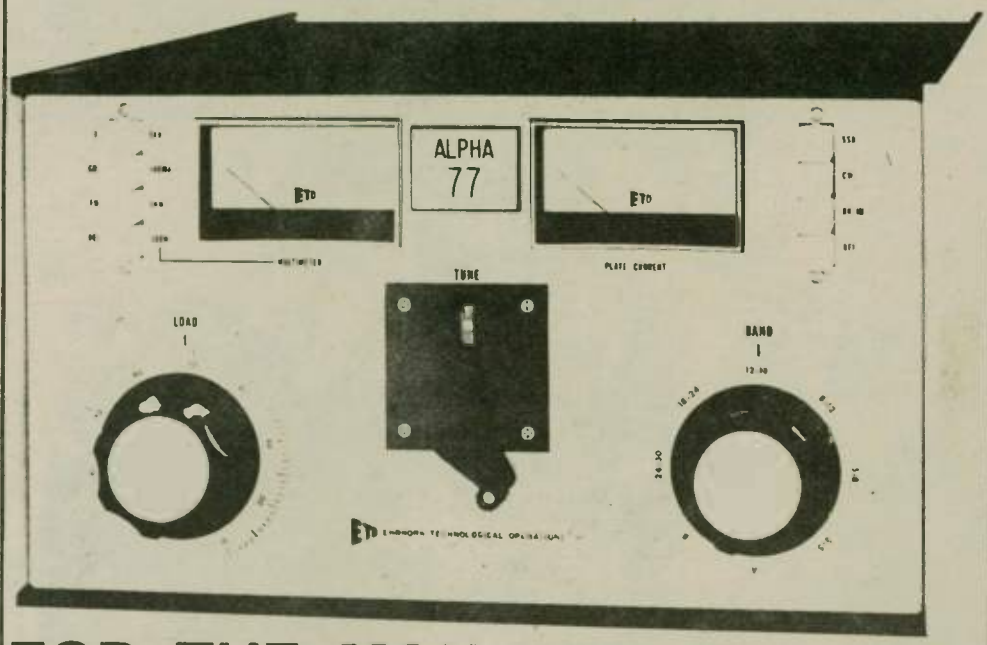

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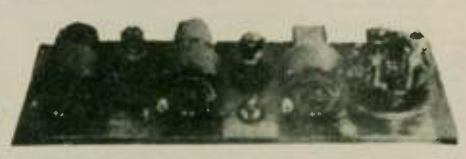

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128	2N5590	3/9.50
48	2N5591	3/20.00
227	2N6080	3/6.00
280	2N6081	3/9.50
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174	2N6083	3/24.00
260	2N6084	3/40.00
50	2N6166	3/50.00

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Qty	Type	
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3	2N1693	3.00
1	2N2857	1.00
2	2N2887	3.00
9	2N2947	8.00
419	2N3925	2.00
13	2N3950	10.00
1963	2N4072	.75
2	2N4073	1.00
1361	2N5109	1.25
1	2N5177	6.00
1754	2N5179	.35
1	2N5583	3.00
33	2N5590	5.00
16	2N5643	10.00
4	2N5849/ MM1622	15.00
11	2N5862	20.00
14	2N5942	20.00
42	2N5591	9.00
30	2N6084	18.00
330	MM1688/ 2N6084	15.00
11	2N6097	15.00
1	2N6135	5.00
40	2N6166	30.00
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259	1.00	837	3.00		
262	1.00	839	3.00		
302	9.00	844	2.00		
304	4.00	845	3.00		
306	6.00	846	2.00		
308	10.00	848	3.00		
351	3.00	849	2.00		
352	3.00	851	7.00		
353	4.00	853	2.00		
354	1.00	855	2.00		
355	2.00	862	1.00		
356	2.00	880	2.00		
357	2.00	889	1.00		
358	7.00	930	4.00		
367	4.00	944	4.00		
415	2.00	945	6.00		
458	1.00	946	4.00		
625	1.00	1010	1.00		
663	1.00	1014	2.00		
665	1.00	1015	2.00		
667	1.00	1020	1.00		
670	1.00	1023	1.50		
677	1.00	1096	2.00		
678	1.00	1125	5.00		
679	1.00	1213	3.00		
680	1.00	1223	2.00		
681	2.00	1302	1.00		
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ICC-242	SI Med. Power Transistor- PNP-60V-3 Amps-6 Watts	1.75
ICC-243	SI Med. Power Transistor- NPN-60V-3 Amps-6 Watts	2.10
ICC-245	SI Med. Power Transistor- NPN-60V-3 Amps-30 Watts	2.10
ICC-246	SI Med. Power Transistor- PNP-60V-3 Amps-30 Watts	2.55
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ICC-633	GE General Purpose Audio Amplifier - PNP	1.10
ICC-637	GE General Purpose RF-PNP	1.40
ICC-638	GE General Purpose Drift-Field - PNP	1.65
ICC-639	GE General Purpose Drift Field - PNP	1.65
ICC-640	GE General Purpose Drift Field - PNP	1.65
ICC-641	GE General Purpose RF and Audio Amplifier - NPN	1.55
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2SA656B/	SI General Purpose Power Amplifier-PNP 90V 7A 90W	5.10

Bargains

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Communications Corp.:

P/N	Wattage	Frequency	Voltage	Price
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D10-28	10	400-1200 MHz	28V	19.00
E1-28	1	1-2 GHz	28V	30.00

Microwave Semiconductors Corp.:

MSC2001	1	2 GHz	28V	35.00
MSC3001	1	3 GHz	28V	60.00
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Motorola Bridges

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7483, 7495, 7496	.55

The Future of FM

by Bob Voss, WB4WVC

It could be that the result of FCC Docket 18803, the repeater rules fiasco, is a big step in the wrong direction.

Let's look at what may happen to FM after July 1, 1973, when the new rules will supposedly go into effect. Much of this must be conjecture, because no one can be certain what the inconsistent FCC will do on this yet.

After July 1, all repeaters must be in compliance with the new rules and should have a new license, although repeaters may be allowed to operate under their present license provided that (1) they meet the new rules to the best of their understanding and (2) an application is pending for the license that was submitted before April 30. Basically this means that a lot of repeaters will go off the air all around the country because they do not comply with the new regulations or else no license application has been filed. There will be a few licensed repeaters, here and there, and there will be many, many people with FM rigs and no usable repeater nearby.

The outcome of this situation will be crowding on the existing repeaters, resentment by those who have not received their licenses yet or who have received notice of rejection, and the creation of the super-base station. This last possibility may occur because without adequate repeater coverage, a mobile rig serves little purpose, so many people will set up base stations, and many will be medium- to high-power rigs with high-gain antennas attached to enable them to utilize those few repeaters that are on the air.

This may be just opposite of what the FCC intended--instead of local mobile coverage, the repeater may turn into a DX-type machine used by high-power base stations.

With all that FM equipment out there, some people will get the urge to use it--hence, the basis for this super-base station hypothesis. Naturally, this makes it even rougher for the mobile in the fringe areas of the repeaters when they try to use a crowded repeater being used by base stations--he may never get a word in edge-wise.

It also appears that the FCC will require the same receiver sensitivity on the output monitor receiver as the main receiver. This means to the average repeater group that any repeater within 200 miles, or any simplex activity within 100 miles (assuming a good repeater site) would prevent their repeater from keying up. Thus only one repeater can be on a channel within a 200 mile radius circle. If a North Carolina repeater is on, no repeater in most of Virginia or South Carolina can operate on the same output channel.

This ridiculous FCC requirement negates one of the main advantages of FM - the capture effect. Commercial services use the capture effect to great advantage. Without it there would be mass chaos. In metropolitan areas there are up to 50 users on the same RF channel.

Just think - a slight inversion could allow one repeater or one simplex station to tie up the entire east coast on a given channel if the FCC continues to require this equal sensitivity. One mobile or portable talking direct to another mobile 50 feet away, both of them located 50 miles from the repeater site, would tie up the repeater for all users, despite the fact that the repeater would not bother them in the least if it did come on.

So what about a year from now? It looks pretty bleak starting out. Hopefully the FCC will relent and come up with more realistic concepts of channel sharing, monitoring and remote control. But there is no indication this will happen. FM activity will probably drop (areas without a repeater now tend to be dead FM-wise), and the activity will never recover, even if some of the repeaters make it back on.

Local control repeaters (unless you live on a mountain), do not have the coverage or ability to be on 18 hours a day, with only one person to monitor all that time, seven days a week. So far mostly local control licenses have been issued. 146.94 and 146.52 may sound more like 20 meters in congested areas. Illegal repeaters may pop up. FM gear may be pretty cheap next summer at the hamfests.

Let's hope FM does not get killed by the FCC. The going looks rough for at least one year, and the initial shock after July 1 may be rough and cause many to leave FM for good. It will be sad to see the great benefits of the repeaters to mobile users disappear, but maybe in a year or two we will be back in shape FM wise. It was great fun while it lasted!
(From "The Virginia Ham")

FM-CA

by Doris Conkling, WA6UAF

The California Amateur Relay Council (CARC) convened its 21st meeting on May 19, 1973 at the Host of Sacramento hotel. There were approximately 100 delegates in attendance representing repeaters and remote-base operations in California, Nevada and Hawaii. A conservative estimate is that these people represented more than 2000 amateurs who operate on repeaters and remote-base stations in these states. The meeting was hosted by the Radio Amateur Mobile Society of Sacramento and was presided over by the CARC Chairman, Ross Stevens, W6FRE.

The highlight of the meeting was the panel discussion held concerning the new FCC rules and regulations regarding the operation of repeaters and remote bases. The panel was moderated by Jay O'Brien, W6GDO, Technical Committee Chairman (CARC-North). Panel members were Martin Geisler, WA6TIC, Technical Committee Chairman (CARC-South) and George Drysdale, WA6AIQ, UHF Frequency Coordinator (CARC-South).

During the discussion many of the delegates explained the problems that they had run into in attempting to license their stations under the new rules. Others had many questions on what pitfalls to avoid. Martin, WA6TIC, had some current information direct from FCC in Washington, DC, as he had visited there and met with Mr. John Johnston of the FCC on May 1. The picture is not very bright at the present time. Most people present agreed that the rules as stated in Docket 18803 can be complied with without too much of a change from the existing operations. However, the multitude of interpretations of these rules which have come from Washington since the docket was published last September, would make it appear that the FCC is attempting to completely abolish repeater and remote-base operations as we know them today.

There have been suggestions from some areas that the trustees should tell the FCC what they want to hear, and then the organization could continue to operate as they had been operating. The consensus of opinion at this meeting was that this would be very wrong. The majority felt that the groups should make every attempt to license their operations under the rules and that they should fight the interpretations which have been issued since the rules were published. Many of the groups are already engaging in "30-day ping-pong", the process of having their applications bounced and resubmitting them every 30 days.

Several groups complained that their applications had been rejected apparently only because they didn't use the FCC "stick-man" example on their system diagrams. Other groups have been told by the FCC that more than six control operators is a situation not likely to be approved (this works out to 1460 hours per year of control per operator if the repeater is on 24 hours per day). The FCC has interpreted the rules to mean that you can control your remotely-controlled station from your car (identify your control transmission at 20 wpm CW) but you may only talk through it from a fixed, specifically licensed location. It appears to the group that the FCC is inventing new interpretations merely to allow them to reject applications.

The next meeting of the California Amateur Relay Council will be held in October in Bishop, California. For information on CARC write to the Secretary/Treasurer: Pres Thomson, WB6PUE, 915 King Drive, El Cerrito, CA 94530.

Emergency

Chuck Bennett, WB8GQW, has prepared a list of supplies and equipment emergency-minded amateurs should have. If you would be prepared for a communications emergency, consider the following:

- Radiograms
- Pens, pencils erasers
- Station log
- Flashlight
- Antennas
- Microphone
- Broadcast receiver
- Matches (waterproof box)
- Key, straight
- Water, 5 gallons
- Eating utensils
- Hand towels
- Soap
- Can and bottle openers
- Soldering Iron
- Sleeping bag
- Extra gas and oil
- Jumper cables
- First aid kit
- Hatchet, saw, axe
- Rope, guy wire
- Extra xtals, tubes, fuses
- Foul weather gear
- ID cards, signs, passes
- Scratch pads
- 110/12-volt desk lamp
- Headphones
- Radio Equipment
- Coax, long, short, patch
- Maps
- Tools
- SWR bridge
- Speaker
- Face towels
- Toilet paper
- Mirror and shaving gear
- Aspirin tablets
- Alarm clock
- Blankets
- Syphon (for gasoline)
- Shovel and pick
- Change of clothes
- Extension cords
- Mast sections and base
- Tow cable
- ARRL operating manual
- Phone directory
- ARRL operating aid #9
- Bug bomb
- Generator 110/12V
- Food--3 days worth, not to be heated.
- Large wooden box to hold items of equipment.

(From "Central Ohio AREC Bulletin")

Worldradio Newservice

During recent negotiations of a contract, William B. Soble, W3QXT, representing the Government, discovered that his old WWII Navy buddy Stanley Rosenberg, W1GKF ex W2GSC, represented the contractor. Negotiations had been conducted by letter and the telephone. They and many other hams served together at the Naval Training Station, Newport, R.I. in Company 70, and at the Naval Radio School, Noroton Heights, Connecticut in 1941. Their subsequent meeting in the Philadelphia area after 32 years in January of this year resulted in plans being made for a reunion. Many former shipmates have been located and fully support the reunion. Included in this group are the following hams: Lawrence de George, W1ISV; Rafael E. Lapeira Gonzalez, TI2REL/3; John W. Smith, W3ZBZ; Lyman W. Menard, W4IQW/ZF1QW; Chester D. Voorhees, W8BIF; George C. McLemore Jr., W1WXJ; George A. Davison, W1FWQ; Valentine V. Seidle, W3KDB; Ernest R. Rueger, W2JFB; and George S. Goehring, W4MOH. Other former navy associates attached to the Newport and Noroton stations during spring and summer of 1941 are urged to contact W3QXT.

A Network of Care

by Nash Williams, W6HCD

as told to Thelma White

Night comes quickly in the rugged San Pedro Martir mountains of Baja California. The light fades abruptly so the hunters knew they would have to hurry in order to reach the cabin before dark. At an altitude of 7,000 feet, men and animals were soon exhausted but they pressed on toward the tiny village of La Grulla where the cabin stood.

The men were old friends, all cattle ranchers from Santo Domingo and they had been planning this hunting trip in the mountains for some time. With the day's last light they spotted the cabin and, looking forward to an evening of good food and good company, raced each other the last half mile. Suddenly Alfredo Garcia, the eldest of the group, collapsed with what appeared to be a heart attack

His friends carried him into the cabin and tried to administer what aid they could but they knew he needed a doctor and fast. What could they do? They were 40 rugged miles from the Meling Ranch with its landing strip and radio. One of the villagers reminded the men that the Mexican Observatory was a few miles away and they had a radio; perhaps they could ride there and call for help. One of the group of hunters quickly made plans to ride to the observatory and with a local man as a guide, they set off in the darkness. It was a slow and dangerous ride, but about dawn the next morning they reached the observatory and were elated to find that station XE1PAM was operational and anxious to give whatever help was needed.

They broadcast the appeal on 75 meters and the message was picked up by Maurice Mathias, W6NPV; J. C. Ellison, K6MVF; Earl Wiederhold, K6SMT and others. K6MVF telephoned Wes Novotny, W6YSP, who, with Nash Williams, W6HCD, has nightly schedules with XE2BY (the Meling Ranch) and XE1PAM (the observatory). Operations were shifted to 7265 kHz with Leon Saroff, WB6YFT, holding the frequency and Mortie Smith, WA6SNE, advising the West Coast Amateur Radio Service Network to help keep that frequency clear for rescue communications. W6YSP contacted the San Diego Mountain Rescue Team and Dr. Dale Hoyt, president of the Flying Samaritans about the emergency. One or the other of these volunteer groups could surely reach La Grulla somehow, by air if possible, by jeep if a plane couldn't land, or on foot if that proved to be the only means of access.

Lois McCoy of the San Diego Mountain Rescue Team responded to the emergency call. This group of skilled mountaineers and trackers have hauled so many people off mountains, trailed so many lost hikers through the rugged country of Southern California, they must surely have lost count. Superbly equipped and trained, they had at their disposal everything needed for this sort of rescue operation but one vital element - time. The time it would take to drive a jeep over the rutted tracks that pass for roads in Baja, grinding along in first gear at 8 or 10 miles per hour, might mean the difference between life and death for the stricken hunter. Nevertheless, they picked up XE2NNR to operate the team's mobile station, WB6OIX, and headed for the border and the 200 mile drive to La Grulla.

At the same time that the Mountain Rescue Team headed south, the Flying Samaritan Team were at the airport poring over the charts and maps of the area. Arnold Senterfitt, past president of the volunteer group and an expert pilot, had prepared an outstanding map of Baja California with detailed descriptions of each tiny landing strip. There is no organization in the state that knows Baja better than the Flying Samaritans. They have been flying medical teams into remote villages there, giving care to the needy, the ill, the injured, for over ten years. In their efforts to improve the quality of life for the people of Baja, the Flying Samaritans have established a secondary school, a series of medical clinics, dental health clinics and launched a massive innoculation program. One of their major assets was the radio network they had established that serves the bital function of alerting the Flying Samaritans in the event of a medical emergency, a pretty common occurrence in that rugged and beautiful country.

But the team that Dr. Hoyt assembled to rescue Senor Garcia had a monumental problem. They stared in dismay at Senterfitt's map. There was no airstrip anywhere near La Grulla. In fact, the nearest landing field was at the Meling Ranch, 40 miles away. The map showed meadows in the vicinity but the 7,000 foot altitude would make a landing extremely tricky. Well, they would just have to try, so they took off from San Diego Airport and set a course for the Meling Ranch where they planned to land and pick up a guide for the flight to La Grulla.

About noon that same day a Cessna 180 landed at the Meling Ranch. At the controls was Jerry Sickefoose, a Coast Guard pilot on a holiday. He had barely rolled to a stop at the end of the dirt strip when Phil Meling hurried out to tell him about the emergency. Rescue operations are nothing new to the Coast Guard. It is what that branch of service is all about, so Jerry brought a lot of expertise and experience to the problem now facing him.

First they would have to determine the condition of Senor Garcia and this they planned to do with a message drop. So with Phil Meling aboard, Jerry Sickefoose headed for La Grulla, safely clearing the first obstacle, the 7,200 foot ridge enroute.

Phil spotted the cabin and while Jerry flew low circles over the spot, Phil dropped a message to the anxious group on the ground telling them to join hands in a line if the victim was still alive. They did!

Meanwhile, Jerry was searching for a landing site and although no other aircraft is known to have tried to land in the 7,000 foot high meadows of La Grulla, Jerry did it successfully.

The patient was carried out to the waiting plane and it was obvious they had another problem. Senor Garcia was a pretty big man. In order to take off and gain the altitude necessary to clear the surrounding mountains, gear would have to be jettisoned. So Phil and Jerry set to work stripping the plane of everything but the essential radio and navigational equipment. They got their patient on board and took off for Ensenada.

At just about that time a Cessna 206 with the Flying Samaritan Team on board arrived over the Meling Ranch and were advised on Unicom (122.8 MHz) that the victim had been successfully air-evacuated and was enroute to Ensenada and the hospital. The Flying Samaritan pilot asked XE2BY to notify Lois McCoy, WB6OIX, that the rescue had been effected.

After Senor Garcia was safely deposited at the hospital in Ensenada, Jerry headed once more for La Grulla to pick up all the gear he had jettisoned, then on to the Meling Ranch to begin his slightly delayed vacation.

So another life was saved. The dedication of brave pilots and courageous doctors, working closely with the network of radio amateurs, proved again that life is precious and valuable and no task is too formidable to prevent accomplishing a rescue.

African Trip

(Continued from page 7)

value of such a trip, noting that it was an education just to see how people live in both remote and developed parts of Africa. "And the missionary people there have got to be dedicated in their work," he noted, adding that he had several contacts with missionaries while traveling through the country.

"If I were to go again, I would like to take my wife," he said. "She thought she would have liked it this time but there were things and conditions I don't think she would have gotten used to."

Wells, who is a member of the Bright Leaf Amateur Radio Club, also has a membership now in the Liberian Radio Association (EL2DY) and proudly flashes membership cards for both organizations.

Wells talks to many of his friends in Liberia several times each week. He has that distinction over most visitors to foreign countries in that his communications with new friends are not limited to letters or infrequent phone calls.

"I talk to people in Nigeria, Niger, Dahomey, Togo, Liberia, Ghana and Ivory Coast often," he said. "We all get on the air from 4-6 p.m. every Monday, Wednesday and Friday."

He says they have a lot to talk about.

(From the "Daily Reflector", Greenville, N.C.)

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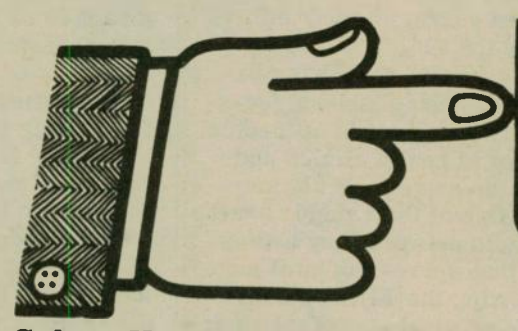

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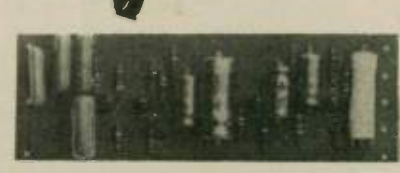

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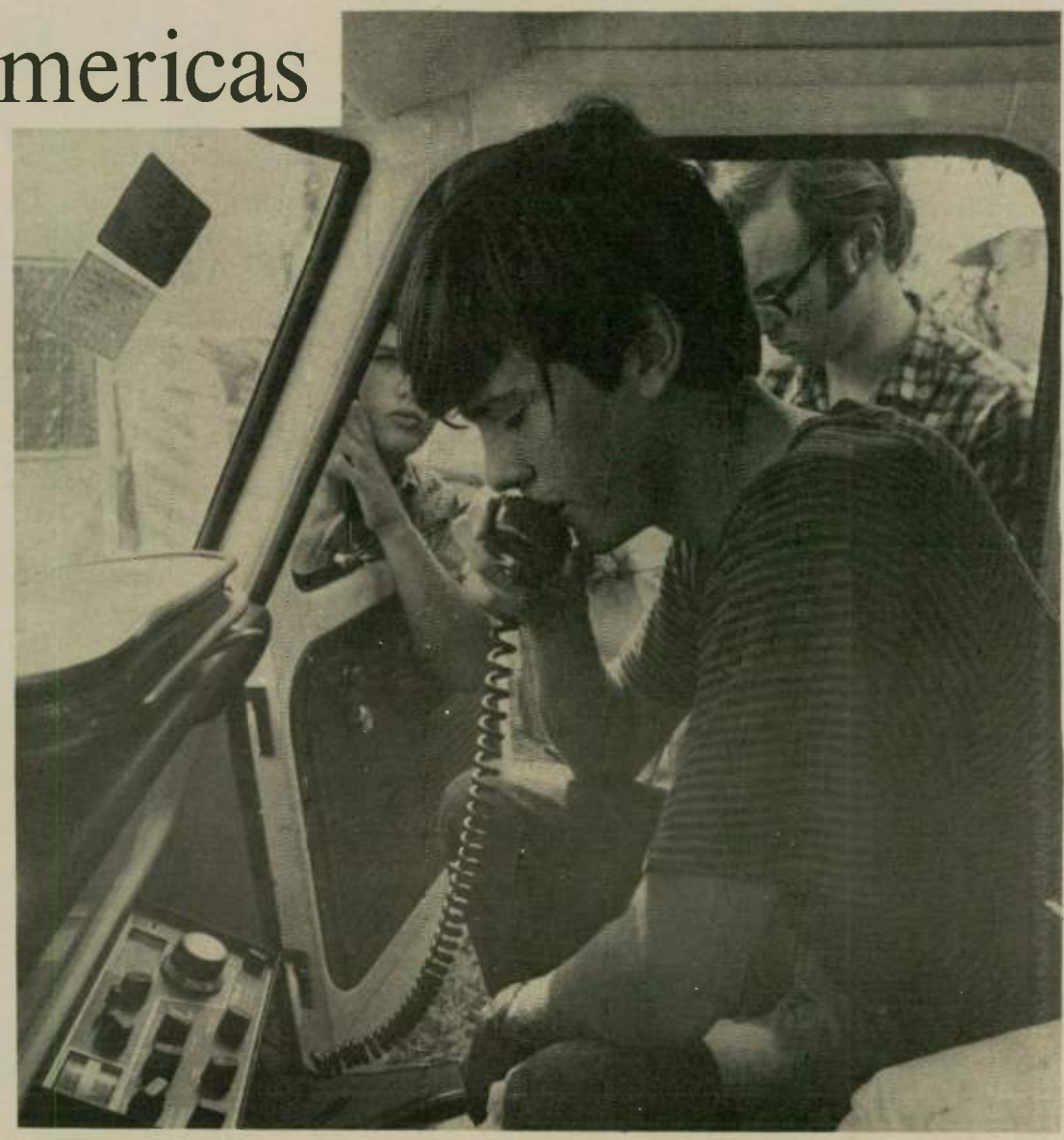
Amigos de las Americas

by Rod Jensen, WB6WKC



Nine years ago at this time Amigos de las Americas was only a dream in the mind of a young man in Houston, Texas. His dream: to provide the Latin American peoples with a fighting chance to progress, by immunizing them against the diseases that so cripple their efforts. At the same time he wanted to help the young people of the United States find principles to believe in. The program he had in mind would do both (see WORLD-RADIO, 17 January 1972).

Last summer, Amigos de las Americas grew in size to 640 volunteers, doctors and dentists. The program, with recent expansion into Paraguay, was integrated with local government programs in five Latin American countries. Immunizations against smallpox, polio, tetanus, whooping cough, diphtheria, tuberculosis and measles totaled 480, 609 in only nine weeks. In addition, 150,000 were administered health aids (first aid and medications).

Medical doctors and dentists, working as a supplement to the immunization program, saw over 13,000 people. Most of them had never seen a doctor or dentist before. As a result, doctors found even simple medical problems nearly lethal because of neglect. Dentists pulled as many as 200 teeth in one day - in many cases extracting whatever rotten teeth were left in the mouth.

Of course, amateur radio plays a major role in the Amigos de las Americas program. Since its inception, AMIGOS has relied totally on ham radio to provide communications between countries, and from the national office in Houston, Texas to Latin America.

On twenty meters, the AMIGOS net operated twice a day in an effort to run traffic from the country headquarters. Although techniques encouraging brevity were used, it usually took over an hour to complete each session, and occasionally special skeds were held. Three times weekly, a 'local' net was held for Central American stations. Traffic usually consisted of information regarding vaccine shipments, volunteer village assignments, specialized problems and the like. Phone patches were conducted when time was available after the net. (A special thanks goes from AMIGOS Staff to Sy Kuykendall, W5UXP, for always being available for phone patches every night).

The communications used to be handled by volunteer operators who went down specifically to operate the radios. In the past several years, however, all of the amateurs have worked either in a clinic or on Field Staff. They operate the radio in addition to their other duties, whether it be giving shots, or giving supplies and advice to the volunteers.

Last summer, eight amateurs were in AMIGOS. Joe Hutcheson, WA5SXR, headed the AMIGOS project in Colombia as Country Director. Although only sophomore at Williams College in Massachusetts, Joe has been in the program for four years, and is now in charge of all operations in Colombia, including contacts with the Ministry of Public Health, leadership of the volunteers and staff, and all the administrative aspects of the organization. His only superior is a regional director who himself is in college. Joe will be returning to the same position this summer, and you may hear him on as WA5SXR/HKL.

Doug Alexander, WN6KMA, a sophomore at Pomona College in California, was Assistant Country Director for Nicaragua, and later for Paraguay. This is the number two position in the country staff line-up. Doug will be returning as Country Director for Guatemala, our largest project, this summer. Rod Jensen, WB6WKC/WB6NXD, was on route staff in Honduras and Nicaragua, before becoming Asst. Country Director in Guatemala. He will be a route leader in Paraguay (as a ZP4). Rod will attend classes at the University of Arizona in the fall, and is 19 years old.

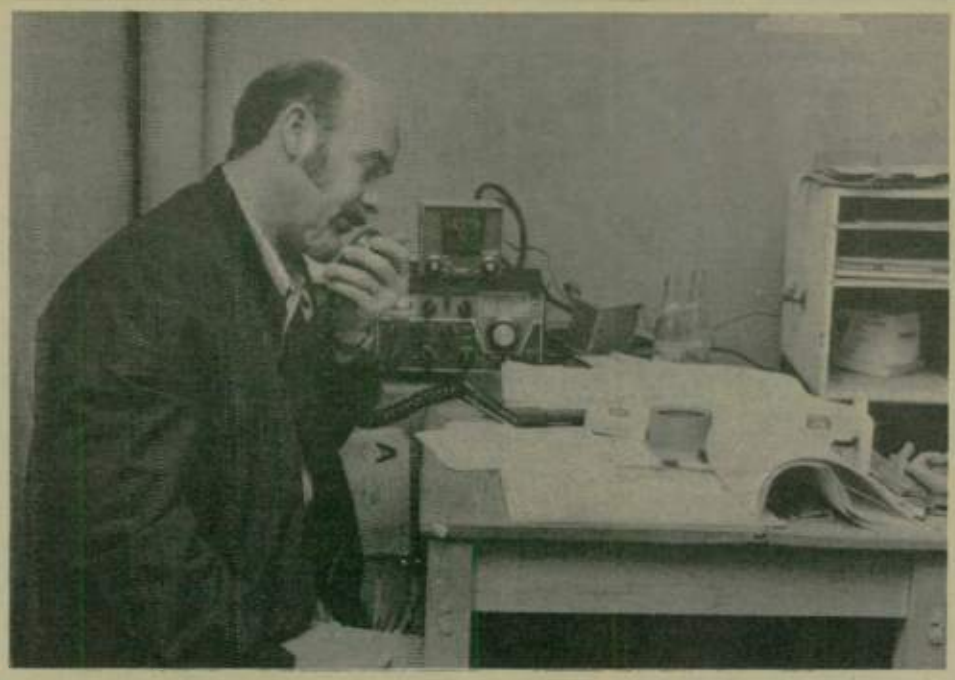
Chris Johnson, WA5ZMF, a sixteen year old high school student from Houston, Texas, was on route staff in Honduras and Guatemala. He will return as a route leader in Honduras this summer (WA5ZMF/HR3). Bill Skeen, WA6KJW, a sophomore at Stanford University, was a route leader in Guatemala, and will not be returning after three years with the program.

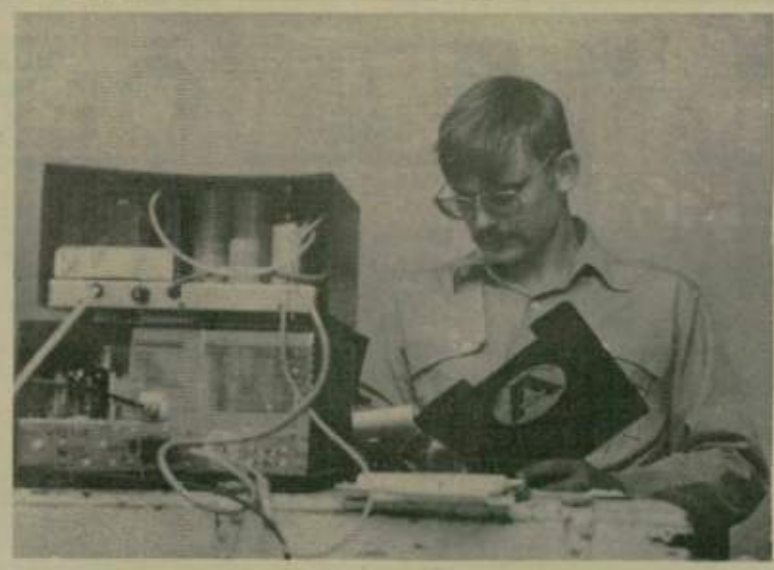
Serving in villages as volunteers were: Craig Upson, WA5YGH, from Albuquerque; Alan Rath, WB6KJK, of San Diego; and Wayne Lauritsen, WA6CBG, from Santa Barbara. Craig was in Guatemala, while Alan and Wayne were in Paraguay. Both Craig and Alan are planning to return this summer.

As usual, there will be a critical shortage of operators this summer, and this often hampers the group's communications. Young amateurs are always badly needed, and are encouraged to write to the author or the national office for more information, if they are interested in working in a village situation. Although it is too late for this project, being a volunteer in the '74 project should be considered. This usually requires going through chapter training (there are 25 all over the United States), although self-trained volunteers are accepted on a minor scale. Through the chapter, the participant contribution usually runs about $250, mainly to offset the cost of transportation.

Amigos de las Americas also actively recruits doctors, medical interns and dentists for three or six week tours. The doctors' main concern is the health of the volunteers, but most of their time will be consumed in holding consultation for the townspeople. Because of the conditions and availability of equipment, dentists are mostly restricted to pulling teeth. The work schedule for professionals, like the volunteers is extremely heavy, but most find it an enjoyable challenge after years of office work. Anyone interested in serving with AMIGOS this summer or later, particularly those with an amateur license, are urged to write for more information from the Amigos National Office.

The national office address is: Amigos de las Americas, 5618 Star Lane, Houston, TX 77027.





AMIGOS DE LAS AMERICAS

Father Francis Joseph Moran, HR5JDC, (known to his parishoners as Padre Francisco, is Pastor at Guarita Mission, Lempira, Honduras, and assists in the adjacent Parish of Candelaria (serving the mission of La Virtud). Because of the mountains, it is easier to reach La Virtud from Guarita.

Father Joe entered the Minor Seminary in Garrison, NY, in 1957. He began at the Capuchin Novitiate in Milton, MA in 1961 and then went to Hudson, NH, for his philosophical studies. From there he returned to Garrison once again to complete his studies and was ordained to the Priesthood in 1969.

In 1970 Father Joe left the U.S. and spent 2 1/2 months in Cuernavaca, Mexico, to study Spanish. By the end of 1970, Father Joe was leaving his mark in Honduras where he was assigned as Pastor of Guarita.

Francis Joseph Moran was born in 1944 on Long Island, NY. He descends from German-English and Scotch-Irish stock. Father Joe is 6 feet tall, has hazel eyes and brown hair and wears the traditional Capuchin beard. (Father Joe can tell you some stories about the beard.)

Since the very beginning of IMRA, Father Joe has been active in it. He was with Fathers Maurice Cox, Dan Lenihan, and Gil Leduc when the IMRA was an embryo back in the early 60s.

Father Joe got interested in amateur radio while at the Capuchin House of Philosophy in 1962, in Hudson, NH, where the club station is K1QFT (Quiet Friar Tuck) and then again in Garrison, NY, at WB2ELX, but never got his ticket until he went to Honduras. Then while he was on furlough to the States in 1972, Father Joe took the exam and now holds the U.S. Amateur call, WB2JDZ.

The station at Guarita consists of a Swan 500-C with a 3-element HyGain beam. For 40 meters, Father Joe has an inverted Vee strung from an orange tree to a lemon tree and for 80 meters, a dipole from the Church steeple to an Aguacate (alligator pear) tree. (You might call that an antenna farm...or grove. hi!) The whole station runs "put-put" on the mission 1 1/2 KW generator.

Hobbies which interest Father Joe are: guitar picking, climbing towers, and vegetable gardening. The vegetable variety in Honduras is quite limited--rice and beans, mostly. So Father Joe has planted cabbage, tomatoes, carrots, turnips and papayas. Looks like good eating at the mission...if it will just rain a little!

(by Sister Mary, WA5VBM)

TFC

On Friday, July 6, 1973, a 150 word QTC began its trip from Alexandria, Virginia, to Brownsville, Texas. This message was being passed in its lengthy form for a very extraordinary reason.... The addressee was an elderly lady with a severe hearing handicap. Unsuccessful attempts had been made by the lady's family to deliver this same message to her via telephone and Western Union. Because of the extreme hearing loss, the personal touch of the Amateur Radio Operator was needed to hand carry the QTC to the lady, observe her reaction, make sure she understood the message, and possibly pick up a return message.

At 1500 GMT, July 6, 1973, Dick Harmon, WA4USB, Alexandria, Va., passed the message to Sister Mary, WA5VBM, Lufkin, Texas, on the Intercontinental Traffic Net, 14.313 MHz. The first relay of this long QTC took place a short time later, 1530 GMT, when Sister Mary passed the message to Al Rupley, WA5NSJ, Ft. Worth, Tx., and Don McGee, WA5FJN, Houston, Tx., on the 7290 Tfc Net. Later in the morning WA5NSJ was able to pass the message to Phil Bloom, W5DX, Brownsville, Tx., and asked him to make the final delivery.

Art Ross, W5KR, is SCM of the South Texas Section of the West Gulf Division, ARRL, and Art delivered the message to the addressee. He hand-carried the message and although there was no return message as such, Art was able to confirm delivery of the message and verify that the lady understood it. This verification and confirmation was passed to Sister Mary, WA5VBM, on the TEXAS TFC NET, 3961 kHz, at 2315 GMT the same day. This "Operator's Message" was passed to Pinky Pinkston, K3CVY, Annapolis, Maryland, on the International Mission Radio Association Tfc Net (IMRA) on 14.280 MHz at 0110 GMT. Pinky called Dick Harmon, WA4USB, Alexandria, Virginia with the return. This placed FINIS on the message as far as Amateur Radio was concerned, but everyone got a great deal of satisfaction out of delivering this message.

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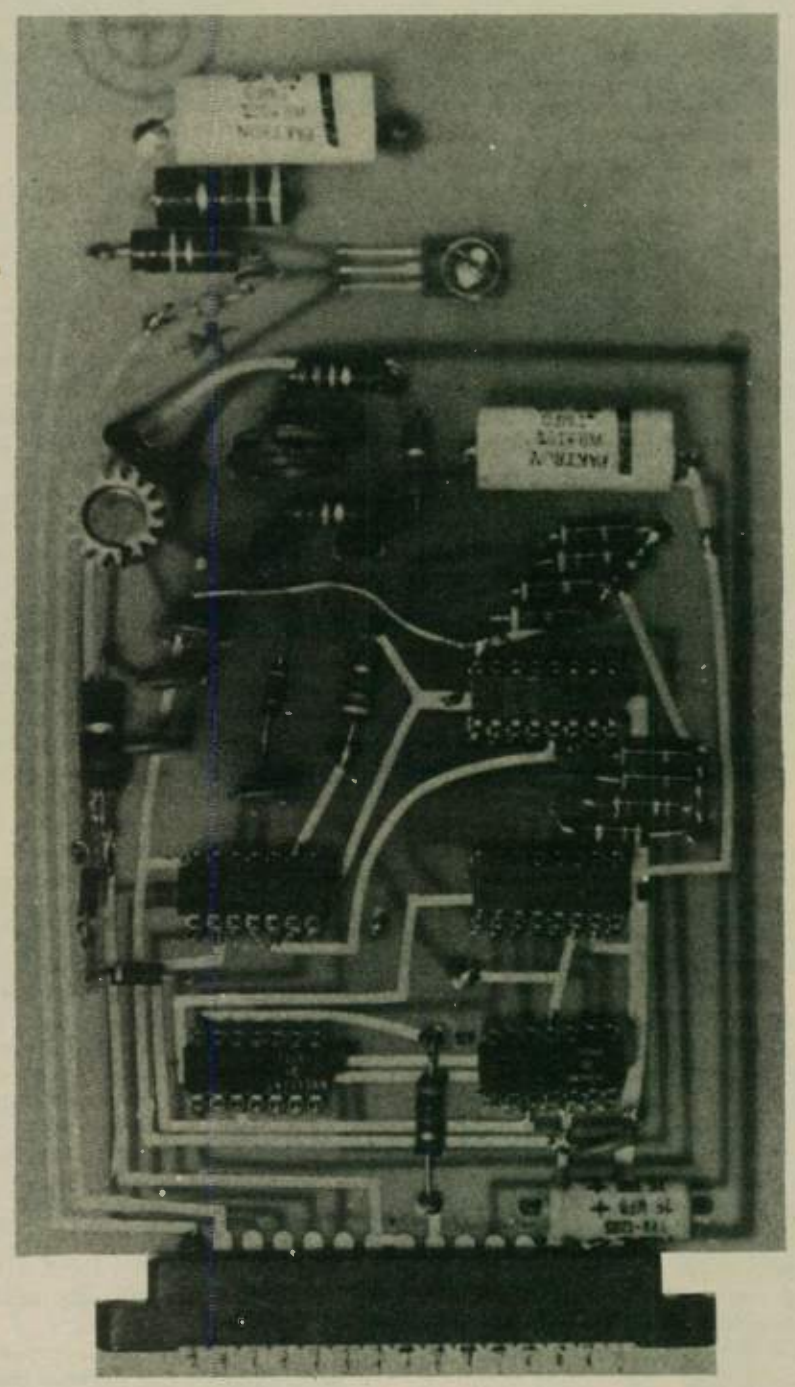

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Ireland Or Bust

by Bob Williams, K6EMN

Terry Crosbie, EI9AR

Bob Williams, K6EMN

During January of this year, the XYL and I started to plan our vacation trip, in April, to the Republic of Ireland. Planning was done without too much excitement because this would be our fourth trip to the "olde sod". The XYL was born and raised there, and the priority of our trips has been first to visit with her relatives and friends and second, to see some of the sights. Little did I know then that within a month I would have a third objective in Ireland -- operating ham radio.

On February 3, during a QSO on 10 meters with Larry Loughran, K6SGD, I found that Larry was also going to Ireland sometime in April. And how about that - his XYL was born and raised in Ireland! I learned from Larry that he would be living in Ireland for a while and had received a permanent call, EI7CJ. He suggested since I make frequent visits to Ireland, I also apply for a permanent EI call. Then, if our paths crossed, I could use his equipment. Our travels would bring us through Larry's County Mayo QTH, so I applied for that semi-rare EI call. Less than sixty days remained before our departure but I might get lucky and receive the license before I left.

Since I work for Pan Am, and can take advantage of the liberal employee travel rates, we have interspersed our trips to Ireland with visits to other countries almost every year. I have often thought what great fun it would be to operate from a DX country. But after second thoughts, considering the equipment necessary to lug along on such a venture, I decided against it. After visiting all of the historic places of interest, there's not much time for ham radio anyway. Besides, what does the XYL do during the time one is knocking off all of the QSL hunters?

These deterrents haven't stopped me from visiting ham friends during my travels. In fact I have even stooped so low as to barge in on unsuspecting hams when I spotted their antenna arrays looming over their rooftops.

In Kenitra, Morocco, I met Fred Wiedemann, CN8HD, this way and had a nice hour or so eyeball QSO with him. He fired up his Heath gear on 15 meters and we had a three way QSO with hams in New Jersey and North Carolina. What QRM when he signed off with these gents! It seemed every ham in the U. S. was calling him.

While driving on an autobahn along the river Rhine in Germany, we were passing a small village when I spotted a huge Quad towering above the surroundings. Again, without thinking of a ham's privacy, I turned off at the first cloverleaf and made my way to the village. It was easy to find my way to the QTH of Erhardt Niesyto, DL3VU, by homing in on his tower. Unfortunately, Erhardt wasn't home, but we had a nice visit with his XYL and teenage son. I know a few words of German and his son knows quite a few more of English, so all of us communicated easily while enjoying coffee and cake.

But let's get back to that pending trip to Ireland. The day of departure arrived, but not the EI license. The only chance now would be to check on it when we arrived in Dublin. So taking our seats on "The World's Most Experienced Airline" at San Francisco, we were on our way via the polar route to our European gateway city, London. Eleven hours later the 747 set down at London Heathrow Airport. With hardly a break in our stride, we made it through Customs, Emigration, and boarded a Irish Air Lines 737 for the one hour hop to Dublin.

It was through bleary eyes that we viewed Dublin Airport that morning at 0900 GMT. Our body clocks were still on San Francisco time, 0100 PST. It was a bit past our normal bedtime, and the day was just beginning for us. First, I picked up the rent-a-car, a VW "bug", and since we would not be staying in Dublin that night, but would drive ninety miles to the west, I figured I had better call the Post and Telegraph to inquire about my license application. They might want me to stop by their office. Of course, they could also say, "Forget it, Buster! What do you expect with less than sixty days notice ?"

Fearing the latter, I dialed the number the nice lady at the airport post office had given me. The P and T operator answered and I dropped my two-penny piece into the phone. The Irish pay phones operate differently from ours. You dial the number, the party answers, and then you deposit the money. This connects your mike circuit so the party can hear you. Act quickly or they will hang up.

She connected me with the Radio Licensing Department, and I explained my situation to the engineer. Yes, he was familiar with my application and had figured I would be calling him. Yes, I had applied on rather short notice, but since I had an application for a permanent license being reviewed, he would be glad to give me a temporary permit to operate for thirty days. He gave me my call letters but I couldn't understand him. It usually takes me a couple of days to "tune in" to the Irish brogue and, for the life of me, I couldn't copy. He repeated it. This time I "received" the prefix EI2, but not the suffix. Feeling a little foolish and wondering what he thought of my competency, I asked for it in phonetics. After two attempts he finally came through to me. EI2V FY! By this time, my mouth was dry and my tongue was clicking as I talked. He wished me a pleasant holiday, and I clicked back my thanks to him. I finally had permission to operate in Ireland. Now all I needed was to cross Larry's path.

With ham radio pushed back to its third priority position, we started out to fulfill the first objective - visiting the XYL's relatives and friends in and around the small town of Ballinasloe, County Galway.

After getting out of the Dublin traffic and onto the Galway road, it's relaxing to drive in Ireland. Of course one is driving on the left side of the road, but it's not as difficult as one would imagine. The cars have steering wheels on the right side, and one shifts gears with the left hand. Fortunately, the left foot works the clutch while the right works the brake and gas pedals. If they also had these the other way around, we'd be in trouble. I have found that after a few blocks of driving, concentrating on the left side of the road, and observing traffic flow, one can pick up the tricks of left side driving quickly. Stay on the alert while driving on long stretches of road with light traffic. It's easy to unconsciously start a slow drift to the right. Obviously, this could get you into trouble.

The scenery along the Galway road is typical Irish countryside. It is made up of small family-size farms, pastures partitioned with fieldstone fences. Every few miles there are villages that serve the local farmers' needs. Scattered here and there one finds small towns that serve as a nucleus for the surrounding village areas. Occasionally, one sees a thatched-roof house, but most have been redone with newer materials. Herds of sheep and beef cattle graze in the fields. Sometimes one waits for them as they are moved down the road on their way to other pastures. The air is clean, quiet, and the way of life easy-going - quite a contrast to life in the San Francisco Bay area.

People ask me if it is safe to visit Ireland these days. Isn't there a war going on over there? My answer is that it depends on which Ireland one is talking about. Without getting into the politics of the situation, let me explain it this way. The island of Ireland is divided into 32 counties. The six counties in the Northeast of the island comprise a country called Northern Ireland. The capital city is Belfast and it is part of Great Britain. The ham radio prefix is GI. The other 26 counties make up a country called The Republic of Ireland. The capital city is Dublin. It is independent from any other country. The ham radio prefix is EI. Work them both and you have two countries for DXCC. The "trouble" is in Northern Ireland. The Republic of Ireland is very peaceful and a safe place to visit. Someday I would like to visit Northern Ireland, but not now, thank you.

We arrived in Ballinasloe at about 1300 GMT. Checking into the hotel, the first thing on the agenda was to get a few hours' sleep. Not only were we suffering from lack of sleep, but also from the effects of jet lag. The medical word is dysrhythmia. This is a mental and physical effect that occurs when passing through several time zones within a short period of time. In other words, the body clock still thinks it's in San Francisco. Try as you may, you cannot fool it. Depending on the individual, it usually takes two or three days to adjust

this clock to the new time zone. Even airline flight personnel suffer from it. They devise little ways to make this adjustment easier on themselves, but on the whole, they have to live with it.

That evening, trying to forget our body clocks, we started on the rounds visiting the relatives. The next four days would be spent doing this. My XYL has many uncles, aunts and cousins.

I had noticed in the callbook that F. T. Crosbie, EI9AR, lives in Ballinasloe. I wrote down his name and address so I could drop in and say hello. I asked one of the hotel staff for directions to his house but she wasn't familiar with the address. She said that a Crosbie did own a butcher shop down at the corner, and maybe he could help me. I stopped at the shop to inquire. He was F. T. Crosbie, and of course he was also Terry, EI9AR. I gave him my QSL card and we had a nice eyeball QSO in his shop while one of his sons tended the customers. Even the XYL managed to get in a few words. She had known Terry by sight, but not name, in the years past and they both have common friends. In fact we had passed him on the street during a previous visit, not knowing that he was the only ham in town. I guess you could say that we knew he sold ham, but didn't know he was one ! Terry invited us to his home, gave me the directions, and away we went to continue our schedule of looking up the cousins.

I won't bore you with all the details, but visiting the relatives wasn't really as bad as it sounds. Most of them are farmers and for a city boy like myself whose second hobby is gardening, talking shop and observing the professional way of farming was interesting. But by no means less interesting were the visits with the other relatives and friends who are nurses, nuns, teachers, and shopkeepers - especially the cousin, Jenkins, who owns a pub (public house or bar). His is a typical Irish pub with typical Irish characters and typically good Irish "sauce". I have spent many a happy hour there.

The next day we drove out to Terry's QTH, located on the main road into town. Why I had missed his 15 and 20 meter dipoles before is beyond me. I usually have an eye peeled for this sort of thing. He introduced us to his XYL, Ann, and those of his ten harmonics who were home. He then hustled me off to his shack. "Sit down and start operating," he said. "The wife and I have to go to a funeral, but will be back shortly." Dumbfounded and not expecting this, I sat down in front of the Swan 350C. "It's all tuned up on 14. 200 and ready to go," he said. "All you have to do is push to talk." With that, he and his XYL were gone.

I sat there with my mouth open. Finally, I shut my mouth and cautiously turned the dial plus and minus 14. 200. The band was full of S9 signals, and they were all Europeans. There were so many of them, they were QRMing each other. From California, on 10 meters, I have worked many S9 Europeans, but never have I heard so many in the same place at the same time.

I found a semi-clear spot, nervously cleared my throat, and called CQ. No one came back. I tuned around some more and found SP5FIM calling CQ. He signed. I called him, and he came back to me ! EI2VFY's first contact ! And with Poland yet ! I gave him a 5-9, and received a 5-7. After a six minute QSO, we signed and I tuned the band looking for U. S. stations. The EI-W path wasn't open. I did, just barely, hear a W2 calling an African station, but that was the extent of it.

About this time Terry came in. While the XYLs started their own conversation in the background, Terry and I, between contacts, continued ours.

Terry has been licensed for about twelve years and mostly works 15 and 20 meters. He uses both phone and cw, but prefers cw. It was his XYL that got him started in ham radio. She isn't a ham but was once a commercial cw operator pounding out 25 wpm. Terry told me she taught him the code. Not many hams can make that statement.

In Ireland the maximum legal power is 150 watts d. c. on 80, 40 and 20 with 100 watts d. c. on 15 and 10 meters. Terry is planning to put up a tri-band Quad, which should make quite a difference in his signal. Explaining why EI stations are semi-rare in the U. S., he said "of the 265 licensed hams, only 65 are active. Most EIs work 80 cw".

We had a great visit with Terry and his XYL, Ann. The conversation was warm, the hospitality gracious, and the Irish whiskey mellow. Through Terry's station I was able to whet my appetite for operating a DX call while working various stations in SP, LA, I, OH, HB9, EA and VE1. The time had passed quickly. We still had a few more visits to make and Terry had appointments to keep. We had to say our 73s. I had a new international ham friend to keep in contact with in future years.

•

That evening, after having finished our visiting schedule, I called Larry's mother-in-law's home, 80 miles away in County Mayo. Larry had been delayed on the U. S. East Coast and his arrival time was not certain. In about two days we would be driving through Mayo, so I told her we would drop in.

The next morning we started out on the sight-seeing part of the trip. We would be driving north to Sligo, spending a day or two there. Playing the rest of the trip by ear, we would then head west through Mayo, turn south, and following the coastline around the island, end up in Dublin. Previous trips were spent primarily touring the interior. We had heard so much of the beauty of the coast, that we decided to see it all in one trip.

Two days later, after following the County Sligo coastline from Sligo City, we arrived in Crossmolina, County Mayo, Larry's Irish QTH. He had not arrived. His mother-in-law told us that she had received no further word of his arrival date. Unfortunately our paths would not cross this time.

The XYL and I had visited with Larry and his XYL shortly before they left California. He's a great guy with lots of ideas. He hopes to stir up some ham radio interest among the young people in Ireland-maybe start ham radio classes. To all of you QRP fans Larry is a good one to look for. He runs two watts to the Ten-Tec transceiver on all bands. He likes phone. When things get rough he sticks his 50-watt linear in the line and really makes some noise. On 10 meters I have heard him work Australians. They found it hard to believe he was running two watts to a three-element Yagi.

It was cold in Crossmolina that day, but it was cozy warm in Mrs. Doyle's kitchen. We spent four hours there, talking and sipping (to get the chill off the bones) a bit of Irish whiskey. Our chat was most enjoyable but there was a lot of road ahead of us. We said our goodbyes to Mrs. Doyle and pointed the car towards the western coast of Mayo.

During the next two weeks we covered a lot of ground. The places we visited and the sights we saw are too numerous to describe in this article. I would, however, like to point out some of the highlights of our journey. You might keep them in mind if someday you visit Ireland.

I am fascinated by old castles. There must be hundreds of them in Ireland. Technically, I guess, it's proper to refer to most of them as towers, round and square towers. The round towers date back before the 10th century, and the square, the 15th century. Some are still in excellent shape and are 100 feet or more high. They have several floors and were built for defense from numerous invading armies and navies, going back to the days of the Vikings. One can almost imagine the battles that took place around these towers. Adding to the realism is the fact that, in most cases, the surrounding terrain is the same now as it was in those days; only grazing cattle and the winds of time have made minor changes.

Most of the Irish coastline is beautiful, with sandy, sparsely-populated beaches that stretch for miles. Seagulls fly overhead and cattle graze on the grass along the edges. High cliffs drop hundreds of feet to a foamy sea. The Cliffs of Moher in County Clare are breath-takingly beautiful.

Spanish Point, in County Clare, where in the days of the Spanish Main ships sometimes ran aground on their way north to Galway City in County Galway, still retains its Spanish influence, not only in the people, but also in place names and architecture.

The Dingle Peninsula has beautiful mountains and meadows, from which one can view the expanse of ocean on all three sides.

The lakes of Killarney and the southern edges of Counties Kerry and Cork, where one finds Bantry Bay and Kinsale Harbor are lovely.

The little town of Tramore, eight miles south of Waterford, is built along the side of a steep hill, where when looking down, you can see the three-mile stretch of sandy beach around Tramore Bay, the best swimming beach in Ireland.

The Wicklow Mountains remind me of the Sierra foothills with its dense forests, lakes and streams.

These are just thumbnail sketches of the areas that impressed me the most. There are many more in the interior. Dublin is such a big city with so many places of interest, I couldn't do it justice in this article.

If you plan a trip to Ireland may I suggest you contact the nearest office of the Irish Tourist Board. They offer a free service of vacation planning. Besides having maps and travel literature available, they provide information on hotels, motor hotels, guest houses, and camping grounds. Give them a call, they will mail all of this information to you with no charge or obligation. In Ireland, you can also obtain detailed information on points of interest, shopping and accommodations, dealing specifically with the area you are in, by stopping at the local Irish Tourist Board office. Again free - a valuable service !

With the cost of living overseas climbing, and the devaluation of the U. S. dollar, it is getting more expensive to travel. This is also the case in Ireland, but it still remains one of the best travel bargains in Europe, very close to that of Spain and Portugal.

When we returned the rent-a-car at Dublin Airport, we had chalked up 1, 400 miles of driving. They were easy miles, taking us to many new places and making many new friends. It was unfortunate we were unable to see Larry and his XYL, but I owe him my thanks for urging me to apply for an Irish call. Operating Terry's rig made my vacation trip complete. I have invited Terry to use my rig if he and his XYL ever visit California.

The flight from London to California was again on the polar route. I always enjoy this one because it is daylight all the way. The flight passes over the Irish Sea, the Isle of Man, Northern Ireland, Greenland, Baffin Island, Hudson Bay and crosses into the U. S. at Montana. The weather was clear all the way. From 35, 000 feet the view is terrific ! One can see icebergs, iceflows and then the Polar Cap as the aircraft proceeds farther and farther north. The glaciers of Greenland are also clearly visible.

After landing at San Francisco, we climbed into our American buggy, and I had to re-educate myself to maneuver on the right-hand side of the road. As we made the drive home, I couldn't help but think of the words Frank Sinatra uses in one of his songs when he sings, "It's so nice to go traveling, but it's, oh, so nice to come home !"

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- Jacks for phones, key, ext. speaker, transverter, ALC.

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

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

Size: Transceiver: 6⅝"H, 13¼"W, 14½"D. Power supply: 6⅝"H, 6"W, 12¼"D.

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

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

SB-36, a radio amateur's dream with operating features that only a few years ago were considered too costly—or just plain impossible. Now FET'S and I-C's that incorporate dozens of transistors on a chip only a fraction of an inch square make it possible for SBE to give you a highly compact unit with readout on a 6 digit frequency counter. Tuning an **SB-36** is an experience in relaxed enjoyment. Exciting—personalized—wholly effortless. You just read the frequency of your transmitter (and receiver) as you spin that, oh-so-smooth, counterweighted tuning knob. And you get accurate readout to 100Hz! **SB-36** is a transceiver—a single knob controls both transmitter and receiver. But there's RIT—Receiver Incremental Tuning that allows several kHz offset without change in transmitter frequency.

SB generating system uses **two,** steep-skirted 9MHz crystal lattice filters and a single crystal controlled oscillator. **No frequency shift when** changing SB's! Here's a super feature available only in commercial SSB receivers selling for twice the price of the SB-36. Power supply is a matching unit which also contains loudspeaker. Patch cable/plugs are supplied. Available accessories include external VFO, CW filter and 12VDC power supply.

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

Metering: Transmitter plate current. Relative RF output. ALC. Receiver "S" units.
Connections, rear:
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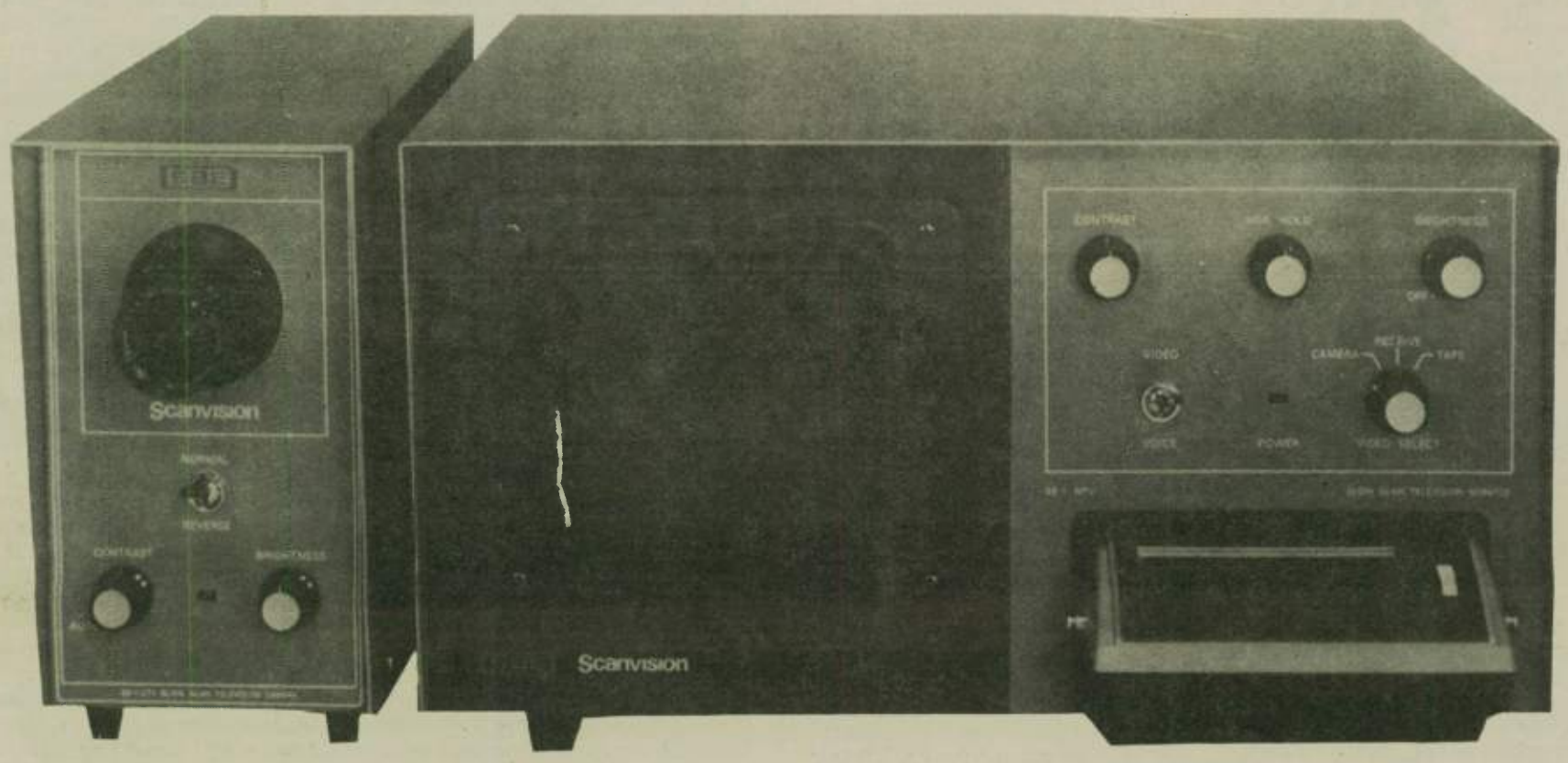

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The full excitement and enjoyment of SSTV can be realized only when a tape recorder is part of the system. Incoming pics are taped for future viewing on SS monitor—pre-taped pictures, scenes, etc.,—can be transmitted. Exclusive! **Every SBE Scanvision monitor** has a cassette-type tape recorder built-in, connected, ready to operate!

SBE Scanvision is conservative—reliable, with picture proved circuitry—is all-solid state except for the scope tube in the monitor and the videocon picture pickup tube, heart of the camera. Both tubes are standard types with predictable characteristics—not surplus.

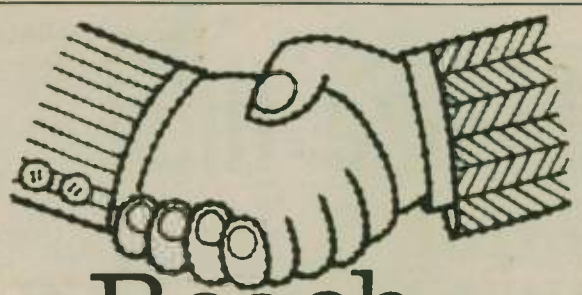
High quality is everywhere evident. Throughout—the, to-be-expected SBE approach—fastidious—professional. Monitor and camera connect with patch cable to comprise a system. Units are separately available. Power for camera is derived from monitor. Camera is supplied with quality f/1.9, 25mm lens without extra charge.

MONITOR
C/R face: 4-11/16" square.
Lines: 128
Line rate: 15Hz (nominal)
Frame rate: 8.5 secs (nominal)
CRT: P7 phosphor, magnetic deflection
Input from recvr: 50 mV to 9.5V
Input impedance: 1000 ohms,
Sync pulses: 1200 Hz.
Horizontal, 5 msecs
Vertical, 30 msecs
Modulation: FM, 1200-2300Hz.
White: 2300 Hz. **Black:** 1500Hz
Power supply: Built in. 120/240VAC, 50/60Hz
Power drain:
50W approx (monitor only).
80W approx (camera & monitor)
Size: 16¾"W, 12½"D, 9¾"H
Recorder:
Tape recorder built/wired-in.

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

CAMERA
Videocon face: .0432" x .0432"
Lines: 128
Line rate: 15Hz
Frame rate: 8.5 secs.
Deflection: Magnetic
Focus: Magnetic
Power: Supplied by monitor.
Connecting cable: 8 feet.
Size: 5-3/32"W, 9-5/16"H, 12-9/16"D

Lens: C-mount. Type, f/1.9, 25mm.
Stops: f/1.9 to f/22.
Field: ~15° horizontal & vertical



Reach Out!

Who and where

by Dr. Sam Rosen, WA2RAU

Amateur radio has many faces. Each face represents a large following, and they include DX: QSO's of a technical or non-technical nature; phone patching; service and friendship.

It is each individual ham's prerogative to pursue the phase of ham radio which he wishes to choose so long as he does not transgress the bounds of decency or violate the rules of the FCC; no other ham has the right to criticize his choice of phase or phases.

Despite my own great exuberance and affection for DX, I feel that SERVICE and FRIENDSHIP predominate in ham radio. What greater feeling of satisfaction can a ham have than to realize that he was instrumental in helping to save another person's life, or alleviate the pain, suffering or fear endured by another ham, his family or his friends ? That, via the medium of ham radio, he was able to help others in some corner of the world who found themselves in dire circumstances and helpless through no fault of their own.

With so much misery and deprivation in the world, an act of compassion toward another human being will help enrich our own life. Hams are notoriously unselfish and will always be present and eager to help in any crisis anywhere be it famine or flood, earthquake or epidemic. Their ears are attuned to all cries for help and they all respond at once. This is what is meant by SERVICE in amateur radio.

Many years ago, Emerson wrote in one of his essays, "To have a friend you must be one". The spirit of FRIENDSHIP should and does predominate in amateur radio. There would be many fewer wars, strifes, animosities if all the world's people were amateurs. Ham radio fosters friendship; color, race or creed do not display themselves during QSO's. Most hams address each other by first names, be they king or senator, or just "people". Even King Hussein, JY1, addressed me on the air as "my friend Sam", or on another occasion as "my friend Doc".

As a ham, FRIENDSHIP is your great opportunity to enlarge your family. Your thoughts are no longer confined to your immediate family; you now have the means at hand to join a circle of new friends in the four corners of the earth. When you are working DX, you are not particularly interested in the DX operator; he gives you a report and you reply with yours. Your interest in him quite naturally disappears as soon as you make the contact; you have increased your DX total, but you have not found or won a friend. As a point of fact, you may even incur the enmity of your fellow hams if you so much as dare to take the time to ask after his health, or even his name.

Yet there are myriad hams operating who are totally disinterested in DX or in contests; they want to meet other hams, both from their own country and from faraway places. They want to know how you live, what you do for a living, what are your other hobbies. They want to know about your family and friends, what equipment you are using, what travels you plan to engage in in the near future. They want to know all about you and to tell you all about themselves. They are not interested in politics, nor do they wish to brainwash you into acquiring their beliefs. They just want you to know that they want you to be their friend. The main thing is to let him feel that you are interested in him and in his activities.

There are many ways you can show him that this is true. For example, when you send him your QSL card, enclose a picture of your family, your ham equipment, ask him if he needs some call book that you do not need as you have just purchased a new one. If he tells you he's a stamp collector, send him some or have your collector friends do it for you. If you have some magazine article that might interest him collecting dust on a shelf, send it along.

And, of course, if he tells you he is visiting here soon, tell him you'd like to meet him, introduce him to your family and friends, have him meet a group of hams while he's here. You will make lasting friendships in whatever country you may visit on your own travels.

If conditions permit, you may even have him stay with you a few days; I have had many wonderful hams visit me, some for several days. Mohammad Saleh Behbehani, 9K2AM, visited me at my office and at home. J. E. Rumble, VK6-RU, spent a full 24 hours at my home. ZA1TZ and Phil Rabie, ZS1TP, spent four days here, as did A. Bles, VK2AVA, and many others. I have been fortunate enough to have travelled over 425,000 air miles, and have been royally greeted by many hams, including E. Robson, 5Z4ERR, and the entire Kenya Club, the ZL, VK and FO8 (Tahiti) hams. In addition, of course, if a ham you befriended is on a DXpedition, he picks you out of the mob and the QRM like Martti Laine, OH2BH, when he was working /ZA in Albania; he picked me out of the QRM with: "Doc, WA2RAU, I'm happy to work you from the new DX country." When K. Venkataramanan, VU2KV, came to New York about a year ago, Frank Pizzuti, W2QK, and I met him and his XYL and took them out to dinner. When Venkat operated VU5KV on an expedition to Andaman Islands, the first two calls he acknowledged in the mob were WA2-RAU and W2QK - with thanks.

If you will take the time to look in the ARRL Handbook, you will find the "Ham's Creed" as written by the late Paul Segal - "The amateur is friendly." In the FCC regulations, look at "The Purpose of the Amateur Radio Service" - "continuation and enhancement of the amateur's unique ability to enhance international good will." We have been spoken of often as "the ham fraternity" - and fraternity is defined as brotherhood and friendship. (From "DXers Magazine")

Field Day

(Continued from page 1)

It is as Dr. Jim Weaver, WA8-COA, wrote in the "Cincinnati Enquirer", "Generator problems, transmitter and receiver failures, fatigue - all played their predesigned roles in giving radio amateurs true-to-life obstacles to overcome - obstacles that would doubtlessly need to be faced in real emergencies of the future as they have been faced by hams in decades gone by.

A great number of the participating clubs, via newspaper articles, invited the general public to their Field Day site. Also on hand were many local government figures who were assured that radio amateurs are ready at a moment's notice to assist local authorities and relief agencies in time of need.

One newspaper in writing about the local Field Day activity said. "The radio amateur is a humanitarian, is civic minded and is always anxious to help wherever and whenever his unique services are needed".

The club in Glendale, California set up their stations in the City Hall. Some clubs set up at schools, for it has been found that often schools are used as communication, transportation and refugee centers during emergency situations. Others were in tents, campers, trailers, motor homes, or makeshift shelters, all part of simulating a crisis.

Those who participate provide a reservoir of experienced radio operators who will, and can, help when called upon. They are conditioned to tackle problems that arise. If the "real thing" should occur, training, practice and preparedness pay off in vital dividends. Many amateurs who were on Field Day this year were involved in the "real thing" such as the San Fernando Valley earthquake in 1971.

When the weekend was over amateurs returned home, bleary-eyed, unshaven and ears ringing with the sounds of Morse Code and voices, but knowing they had worked to become skillfully able to assist the people of their community. The insect bites, hoarse voices and tired fists were part of learning lessons and developing techniques to provide efficient, effective communications. It was valuable practice.

Norm Brooks, K6FO, operating during Field Day at Worldradio Staff Club Station, WB6QHL. Norm was recently elected as Vice-President of the organization publishing "Worldradio".

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An Invitation to Participate

—tell us something—

So we may better serve you, the space below is for your comments and suggestions. Tell us of your interests and what news and features you would like to see. It would be helpful to know how long you have been a ham and what amateur organizations you are a member of. Tell us of your activities and if you have any news or information, you are invited to share it. Tell us how we may help you enjoy Amateur Radio.

Worldradio two years old

This issue marks two years of publishing WORLDRADIO.

Such an anniversary is a proper time to look back, look at where we are and look towards the future.

To get where we are today there were birth pains, growing pains and one helluva fight along the way.

A short time ago a staff member of an amateur radio magazine told us that when we started, the talk around the amateur radio industry was that we wouldn't last four months. The reason given was that amateurs just weren't interested in "that kind of stuff".

It appears that they were wrong. They should have had more faith in the amateur radio community. Our research had led us to believe that no other group contains the warm and wonderful people who make up Amateur Radio.

In its ranks are the most humane residents of this planet. They are interested in the avenues of international friendship, emergency communications, local public service, humanitarian actions and in general - helping and being interested in, other people.

The problem we faced along the way was so many people thought we wouldn't "make it" and were reluctant to subscribe and risk their few dollars. Reports of such an attitude came from many quarters and far away places. Our friend, Ken Millar, ZE7JV, in Rhodesia, even told us that many he talked to on-the-air said "I've seen a copy, it's a great paper, but I don't think they're going to make it, so I'm not going to subscribe". Such was heard, over and over again.

But countering those wrapped in negativism were some great friends. We found our support came from the venturesome, the adventurous, the courageous who wanted to support what the publication stands for. It was a study in people. The contrast between the timid and the bold showed up.

While many were negative (and we suspect such an attitude clouds their approach towards many things), we found our subscriptions came from the dynamic, who reacted to this newspaper with vitality and enthusiasm. And we found out they take such attitudes towards everything they approach.

It was obvious to all that we were battling the odds. On occasions we had the personally painful experience of being late with issues and missing issues. To some (the negative), such made them look correct.

But how did the "Friends of Worldradio" react? When we were at a low ebb those with spirit sent in gift subscriptions, the hams of verve sent in two and three year renewals.

While the apprehensive were faint-hearted about risking five dollars, the brave ones showed the courage of their convictions by sending in fifty dollars.

The subscription list was looking like the who's who of Amateur Radio. It was also a list of people who had distinguished themselves in their professions or businesses. It was a list of people who bring a thrust to whatever they get behind. As we heard from many of them by mail, or met with them in person, we heard many stories of how they also, at one time, had to, by sheer force of will, overcome obstacles. It is truly a pleasure to know so many gutsy people.

The hundreds of letters of encouragement were indeed heart-warming and inspiring. The experience of hearing from so many great people deepened our sense of responsibility towards them. We think of the readers of WORLDRADIO with affection. Due to the personal, people orientation of the publication, we look at those who subscribe as "kindred souls" and as friends.

We believe that those interested in the "special interest" of this publication are indeed "special people". Such people appreciated and made it a publication with meaning and purpose.

One reader, with extensive experience in publishing, wrote in to say that he never knew anyone who would have "stuck it out" like we did. While such was flattering, we had no choice. There was no way we were ever going to let "these kind" of people down. Through this paper we have made many friends; one will go through anything not to disappoint these particular kind of people. We learned a great deal from them.

Slowly we grew. We attracted an enthusiastic audience, a literate audience, with broad interests as well as deep interests. For your editor, it was indeed an honor to be in the company of such people.

While this publication was given birth by one person, it is now the collective spirit of its readers. You have guided it to what it is, you have made it possible. You have inspired its readers. You have shared your knowledge, your experiences and your thoughts.

And many of you, sending in "something for the kitty", paid more than your share of the printing, postage and other expenses. While the money was desperately needed, the gifts and donations were also uplifting to the spirit. Such were fuel for the fire of determination.

We appreciated the three-year subscription from the American Radio Relay League as well as the most favorable comments about this paper in QST, CQ, Ham Radio and 73. Many of the ham club bulletins were kind enough to encourage their readers to subscribe.

How are we doing? Pretty Good! And we must point at the reason why we are semi-solvent today. It's the advertisers! Look through the paper, see what businesses care enough to be a part of this special effort. These are people who share our interests. Notice who they are and when you are in the market for equipment please consider them. They are spending a lot of money to be here. Let us justify their faith.

In the two years of publishing WORLDRADIO we have learned a great deal, mostly about people. We believe that there is definitely a WORLDRADIO type of person. He (or she) is aware, interested in the world around them, and active. They want to make a contribution of some sort, and are active.

In this age of apathy, they stand out. In this day of "I don't have the time"...or... "I'll get around to it someday", the WORLDRADIO person charges on.

We constantly see the contrast. A clerk at one of the radio stores that sells WORLDRADIO told us of customers who pick up the paper and call it "a super-paper" and of others who in a derisive manner say "All that paper talks about is disasters". Do we write about disasters? Yes. While we cover the full gamut of Amateur Radio news, we will always lean towards the story of people helping other people. And we feel a bit sorry for those who are not concerned about other people. It is unfortunate that those whose lives have been untouched by adversity are unconcerned about the plight of others. It is not surprising that this paper has a high percentage of readers in areas such as Ohio, Michigan and Florida (for example) where the people know what havoc tornados and floods can cause.

If you have seen collapsed blood-splattered houses, people with their bodies broken or their insides hanging out, you may develop a sense of wishing to help.

We admire the readers of this paper. Having met them at hamfests and heard from them by letter we know them to be warm people who reach out a helping hand, and the hand of friendship in international matters.

What are the plans for the future? We are dedicated to bringing out the very best paper we are capable of. We are always looking for good articles and must depend on you to provide them.

Eventually we will have a country location. We envision the lobby being an international gift shop with the items being the output of amateur radio operators around the world who are artists and craftsmen. Many of our overseas readers have written in to say that when they come to visit the "States" next time they want to come and visit us here at WORLDRADIO. We also hope to have enough space where hams can come and park their campers.

We are not content to merely report, but must also advocate and participate. We are building up an emergency communications station ourselves. Currently (through the generosity of certain manufacturers and individual amateurs), we can operate on four bands simultaneously. In time we hope to add a generator. It will be for our use as well as to loan out to groups in our area when the need arises.

We feel you can take pride in what you have done. The world seems to be divided into three groups, those who make things happen, those who watch things happen and those who wonder what happened. You made this paper happen.

This may be an appropriate place to recognize those who took out lifetime subscriptions since the last issue. Dr. Robert Kurth, W5-IRP; Doug Murray, W6HVN; Bob Farmer, W5VQQ; Berge Bulbulian, WB6OSH; and Joseph Buswell, WA5TRS. The staff and other readers appreciate your action. You inspire us. Thanks also to those who recently flooded us with three year renewals.

It has been our pleasure to serve you these past two years. We look forward to the years to come with great enthusiasm and a sense of adventure. Thank you for participating in publishing WORLDRADIO. Together we will accomplish some great things.

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(adv.) (de International Coordinator, W3FQT)

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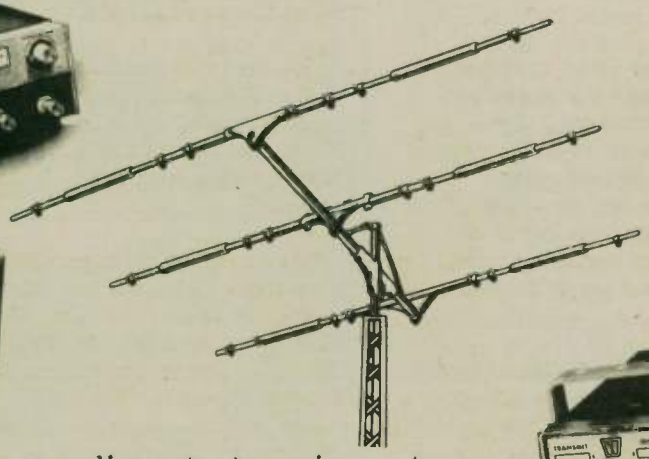

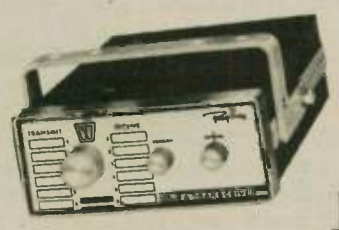

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AMSAT OSCAR

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a monthly column

by Richard Osman, WBØHUQ

Here is the first summary of operation as written by Perry I. Klein, K3JTE, president of AMSAT.

OSCAR 6, first in the series of AMSAT-OSCAR-B missions, continues to operate satisfactorily after seven months in orbit. During the first week in May, the operating schedule was modified making the translator available for communications on Thursdays, Saturdays and Mondays, Greenwich Mean Time, and OFF on other days. The purpose of this change was to subject the nickel-cadmium battery to shorter, more frequent charge-discharge cycles. This procedure appears to be working well, and may well extend the useful lifetime of the spacecraft.

The temperature of the battery, which had risen to as high as 47 degrees C. (117 degrees F.) in early February and had been a cause for concern, has now dropped to a more comfortable value. There is now no reason to believe that we will not achieve the one-year planned lifetime, and possibly even exceed it, although we may find it necessary to further modify the operating schedule from time to time in an attempt to extend OSCAR's operating life to the maximum possible.

As many of the users of OSCAR 6 have noticed, we have initiated AMSAT official bulletin transmissions through the satellite translator, and these are generally given on the reference orbits (the first orbit of each Greenwich day, the same orbit during which the satellite is turned on briefly for telemetry recording on the OFF days). Randall Smith, VE2BYG; Jack Colson, W3-TMZ; David Robinson, K7BBO; and KL7HTV have been serving as AMSAT Official Bulletin Stations for these transmissions, which include reports of special experiments and any changes in the operating schedule.

We can now identify the calls of some 1,100 stations who have made one or more contacts via OSCAR 6, very nearly half of these stations being outside the USA. These include stations from 59 countries, including CT2, DL, DU, EA, EI, F, FC, FP8, G, GI, GM, GW, HA, HB, HG, HK, I, JA, KP4, KX6, LA, LX, LU, LZ, OE, OH, OHØ, OK, ON, OX, OZ, PA, PY, SM, SP, SV, TF, UAL, UB5, UC2, UG6, UJ8, UR2, UW6, VE, VK, VKØ, VP2V, VP9, VU, W, XE, YU, ZE, ZL, ZS, 4X, 6Y, and 8P.

In the United States, all fifty states, except Nebraska, have been on at one time or another, although more activity is needed in Idaho, Kentucky, Montana, Nevada, Vermont and Wyoming, as only spotty activity has been reported from these states. The number of stations on from each of the U.S. call areas is: W1 - 38; W2 - 64; W3 - 47; W4 - 64; W5 - 34; W6 - 91; W7 - 53; W8 - 30; W9 - 61; WØ - 52; KH6 - 2; KL7 - 5.

The operator apparently leading with the most reported satellite contacts is David Robinson, K7BBO, with over 3,300 QSOs (Dave is averaging about 500 satellite QSOs a month), and several stations now have over 45 states confirmed through the satellite.

We have one report of operation from VE8, and activity in Africa, South America and the Far East seems to be very sparse. We urge persons in these regions to equip for satellite operation during the coming months.

A special message commemorating World Telecommunication Day was transmitted over OSCAR 6's Codestore message storage system on May 17 using the 29.45 MHz beacon.

The first reported aeronautical mobile communication via OSCAR 6 was by David Clingerman, W6OAL, who reported working K7BBO April 27 on Orbit 2431 over a distance of approximately 5,000 miles. The transmitter aboard the aircraft was a Gonset Sidewinder operating on SSB with less than 5 watts PEP to a simple whip antenna.

Fred Merry, W2GN, for the past several months has been quite successful with an automobile OSCAR terminal, and has been very popular with his special state DX-peditions to Vermont and Kentucky to put these rare states on the air. AMSAT is encouraging more mobile terminal operation with OSCAR 6. In particular, operation from small private aircraft, small boats and automobiles (especially on SSB) would provide a very effective demonstration of the usefulness of amateur satellites for small-terminal communication. In addition, operation using totally hand-held equipment or operating from a bicycle or motorcycle would be impressive "firsts", and we urge anyone interested in these activities to give it a try. If possible, make tape recordings of some of the mobile contacts and send them to AMSAT, P. O. Box 27, Washington, D. C. 20044 U.S.A.

* *

Speaking of awards, there are about five awards I know of, related to OSCAR 6. These are:

(1) Satellites Communicator's Club (S.C.C.). If you've worked someone via OSCAR 6, you are eligible. To get it, send QSO details, including date-time (GMT), station worked, modes, signal reports, for both stations, and an S.A.S.E. marked S.C.C. to: AMSAT, Telemetry Department, P. O. Box 27, Washington, D. C. 20044. (You'll also get an OSCAR 6 QSL if you haven't already gotten one).

(2) WVE Satellite Award. Sponsored by the Northern Alberta Radio Club. You must contact any four Canadian call areas (VO1, VO2, VEØ, VE1, VE2, VE3, VE4, VE5, VE6, VE7, or VE8). DX stations (including KH6 and KL7) need only contact two call areas. To get this award send the QSLs, 25 cents for W/VE stations or an IRC for the DX stations. (If you want the cards returned via registered mail include sufficient postage). Only contacts after January 1, 1973 are to be accepted. Then send it all to: Ray J. Nadeau, VE6SF, P. O. Box 52, Barrhead, Alberta, Canada.

(3) Satellite DX Achievement Award "1000". To qualify you must accumulate 1000 points as follows: each new station 10 points; each new country 50 points; each new continent 250 points. So if a W/VE ham contacts his first European station, that is 310 points, 250 for the continent, 50 for the new country and 10 for the new station. So when you finally accumulate 1000 points, send the QSLs plus usual QSL information (if you want the material returned via registered mail, add $1) and the appropriate application to: ARRL Headquarters, 225 Main Street, Newington, Connecticut 06111.

(4) OSCAR 6 WAS. Yet to be claimed, regular ARRL rules apply, except, of course, Rule Three, which is replaced by a rule requiring confirmation of two-way contact after October 11, 1972. WAS Application (Op Aid 8) (no fee) and send your 50 QSLs and application to: AMSAT WAS AWARD, P. O. Box 27, Washington, D. C. 20044. Note: This is an AMSAT Award Not ARRL.

(5) CQ DX Award, OSCAR ENDORSEMENT. Available to holders of the CQ CW or SSB DX Award. To quality, 50 countries must be worked and confirmed via the satellite since November 18, 1948 (all entries using cards before March 9, 1965 will be carefully scrutinized). HI! Rules are the same as all other CQ DX awards except that the contacts can be on any combination of modes.

(Certain information courtesy AMSAT Corp. and the AMSAT Newsletter).

Excerpts from letters in the "AMSAT Newsletter".

I cannot agree with the concept of a vehicle designed primarily for "DX and Contests"... Somehow, amateurs occasionally lose sight of the reason we have been provided a sizeable chunk of the RF spectrum - PUBLIC SERVICE!

I agree that the public will be served via a synchronous satellite which provides reliable communications over a wide area, utilizing low-powered, inexpensive ground equipment. The public will also be served by the scientific contributions stemming from studies and experiments associated with a satellite in polar orbit containing a comprehensive telemetry system.

I cannot convince myself that the public's best interests will be served by a "DX and Contest" satellite; conversely, such a program would only encourage the ILLEGAL use of excess power, the same bad manners and lack of respect for others' rights as now displayed on the HF bands, coupled with the resultant QRM which would obviate the use of the repeater for emergency or public service communications! ... Ron Dunbar, WØMJS

Since Amateur Radio is (or should be to some degree) devoted to communications in the interest of public service worldwide, I feel that communication via amateur satellites should tend to provide this same service through emergency communications, international patching (of a non-commercial unimportant nature) plus serving as a reliable means through which to discuss the technical aspects of radio communication in general (nets, round-table discussions, etc.).

This should not be the whole story however. Those of us who are interested in the technical side of our hobby should endeavor to provide the best quality communication system through which others will be able to provide this public service. This will provide satisfaction in the form of a well engineered satellite for the technically minded and the satisfaction of being able to provide a public service, in whatever form via a reliable medium, for the public service minded amateur.

The possibility of reliable public service/educational communications via amateur satellites is a very real probability. The use of geo-stationary satellites developed by amateurs and situated over oceans or continents will be able to provide a continuous medium without the present problems of doppler shift, antenna tracking and limited communications time. This type of project could provide a very interesting major goal for AMSAT membership.... Bill Shrimpton, VE7AZL.

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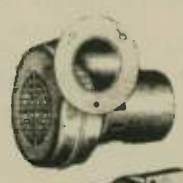

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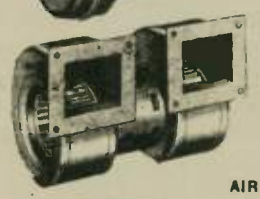

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by Nick Hauck, K6QPE

a monthly column

News filtering back from the Dayton Hamfest, held last April, indicates a "ball" was had by all, especially the SSTV'ers.

Impromptu get-togethers, held at a motel where all the SSTV'ers stayed, brought out such notables as Don Miller, W9NTP; Bill, W9OQC; Nick Stavrou, W4TB; Ralph Taggart, WB8DQT; Mike Tallent, W6MXV; and Bob Schloeman, WA7MOV, and his private "pilot", Dale Hauck, W6YFT/7, from Carefree, Arizona. What a "brain session". Can't you picture it now, all the present as well as futuristic ideas pouring forth?

Ahah, the best was yet to come. The tech sessions. One very interesting presentation, "State of the Art - Forum", provided many ideas for the experimenters. Possibly a request to Bob Suding, WØLMD, will get you a copy of the subjects covered in his fine talk. One very interesting application, a master sync generator, permits you to select any frame time with readout indicating elapsed frame time. This simply means if you want a 1 through 8 second frame, you can very easily select your choice. Memory monitors were brought up however, with a discouraging price of over $500 for the necessary IC's.

We are getting "scooped" by the Japanese hams (remember, they cannot legally transmit SSTV) who are working on "pleasure panels". Using digital encoding, thousands of "balls" are turned on and off giving you a moving picture effect such as used on ballpark scoreboards.

To further "blow" your mind for the future...a SSTV keyboard showing alphanumeric characters on the CRT screen. With memory IC's, you simply sit down and "type" out your SSTV message. Shades of RTTY. What a boon for contest work on DX. Easy CQing, you bet. Looking even further, it was pointed out that if 1 MHz in frequency was used in place of 960 Hz, you would be able to use this "TITLER" on fast scan. Think about it. The eager group was then introduced to a "graphic tablet" for drawing excellent schematics. Up until now, much definition is lost if you want to show off your latest circuit design. Again using an IC memory block and scanning through a large matrix of wires, an electronics pen would then draw, store and, on command, reproduce. If any of you readers are interested in any of this futuristic stuff, write to Bob Suding, WØLMD. Remember, two heads are better than one and "we" will all benefit from it.

Ralph Taggart, WB8DQT, was in charge of a SSTV panel which included the following: Don Miller, W9NTP; Robert Stone, W3EFG; Richard Kendall, WlJKF; Bob Schloeman, WA7MOV; W4XB; WØORX; and Mike Tallent, W6MXV. Of interest to us all was the plea for all SSTV users to QSY upwards on the 20 meter band. The DX boys are worried about losing some of the spectrum. With the increase of more hams going to slow scan every day, it makes good sense. A good suggestion was made: why not use 14.230 as a calling frequency THEN QSY higher in frequency, much like WESCARS, MIDCARS and EASTCARS? If we are to continue to stimulate new growth to the SSTV ranks, we must co-operate with all interests.

Thought of the day: Every Saturday on the SSTV net, many interested newcomers quite frequently "break" into the net in their eagerness to be included. It is felt by many that it would be better to "listen" and not yell, "break, break" or throw a fast video CQ. Remember, it is impossible to learn anything when you are doing the talking.

Mounting your present 35mm camera lens to your SSTV camera: Most of us have a 35mm camera with interchangeable lenses that we use on the kids. Well, dig it out and take a look at it. Did you know that you can buy an adapter to use that lens? The SSTV camera uses a "C" mount and will accept your lens. It is cheaper to go this way than to have to buy many different sets of lenses.

What a wonderful DX season!! Full of "Thrills and Spills". Lots of DX...twelve new WACs compared to a previous total of only 29 from 1953 to the start of this season.

Many operators are really climbing the 160/DXCC ladder with the surprise DX and DXpeditions on 160. Keith Spicer, G3RPB, made the comment that the band's full potential is not being realized. What we need, he says, is more stations on, more of the time, in more countries. They'd have fun...we'd all have fun.

The 160 gang is famous for good gentlemanly operating and a willingness to share knowledge. Earl Cunningham, W5RTQ, very kindly volunteers to send detailed photocopy of info on "Beverage" antennas, theory and construction, to anyone who requests it, with 24 cents, S.A.S.E.

George Jacobs, W3ASK, thinks that 1974 should be a banner year for 160. The top band is mentioned each week during his CQ Magazine propagation reports available by dialing (516) 883-6223.

Speaking of CQ Magazine, they are now issuing endorsements on their DX certificates for having worked 50 countries on 160. Jerry Hagen, WA6GLD, is the man to contact for an application.

Herb Schoenbohm, KV4FZ, now has 90 countries from his Virgin Islands QTH. Herb's signal is called "strongest DX signal ever heard on 160" by Keith, G3RPB. Keith has something to base his opinion on as he has 48 countries worked so far this season. Gene Sykes, W4BRB, just made WAC and country 64.

After making 5 band WAS and DXCC on HF, "Jack" Jackson, WA4LDM, is now on 160 using a 75A3, Ranger, and Inverted "L". A top DXer returning to 160 is Bob Snyder, ex-WØGTA, EP2BK, VS1LP, 9M4LP and LAØAD. Now as LU5EVM, Bob is on from downtown Buenos Aires with a Signal One and a 50-foot vertical and a water pipe ground. Showing that the old saw about needing giant antennas to work on 160 is a lot of bunk. Bob has worked DL1FF, WA8LJI, as well as ZP9AY, OA8V, ZD9BM, VP8KF. In years past Bob has made much 160 DX history. Now he will get a little friendly competition from widely traveled Fred Laun, now LU5HFI. With a country location he will be putting up several Beverages and exciting them with a pair of 813s. Regs down there allow 1 KW and there is no Loran. With a sloping half-wave doublet he recently was hearing the German commercial station DHJ, 25 over 9. Called CQ and four Europeans answered.

But one can have a lot of fun with lesser amounts of power as shown by Brice Anderson, W9PNE. With but five watts (that's right, five) he has worked 47 states this season. Can anyone help him with KL7, KH6 and RI. Brice is getting pretty good at this. On other bands he has WAC and 25 countries with five watts. So he put down that elephant gun and went to 1/2 watt where he bagged 19 countries and another WAC.

The "JA 160 Meter News Bulletin" is a wonderful publication issued by Isaji Shima, JA3AA. There are over 500 JA stations interested in 160. To get the benefit from the publication you "gotta know the language. One JA 160er who knows ours is Mine Sugiyama, JH1LKH, who was visiting the USA in March.

The attitude of the 160 buffs has often been written about. While we hear reports of the DXers on other bands calling each other names on the air etc., we turn to the words of Ron Delcourt, F5QQ, GD5APJ, who operated the 160 position on the YVØAA, Aves Island DXpedition. "Pse QSP my TNX to the 160 boys for their patience, understanding, help and perfect behavior on the air."... Isn't something like that nice to hear?

Harry McQuillan, EP2BQ, (who has 1st 5 band DXCC from Asia) is having a blast on 160, says "Happy to be giving so many Ws their WAC/160". Harry is working everything in all directions...VKs, ZLs around to Wls and W4s. Another bit of exotica is Ray, JY9FOC; this represents a new country for many of the 160 gang. John Rogers, G3PQA, is on from Yemen operating as 4W1AE with 200 watts and an inverted V Windom with the apex at 90 feet and is being worked from many corners of the globe.

Amateurs with small lots (or gardens, as they are called in England) should not be discouraged from taking a whack at 160. Peter Forbes, VK3QI, has gone mobile on 160. He uses an 80 meter center loaded whip with a "long wire" to the car radiator cap...best mobile DX--1,000 miles. Well, what will we hear from out there topping that...160 on the proverbial rain gutter or bed springs?

Speaking about hearing from "out there" - We're very pleased with the response to this column in Worldradio. Thanks to the many who have written in to say they were glad to see it. We do have the opportunity here to get the 160 news out quickly. There is no "60 day lead time" here. Get your news in and be surprised how quickly it comes out.

Late Flash-Page 46

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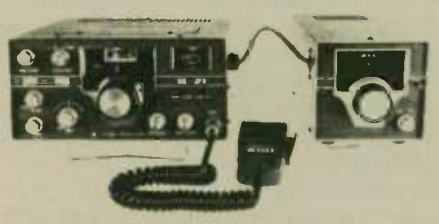

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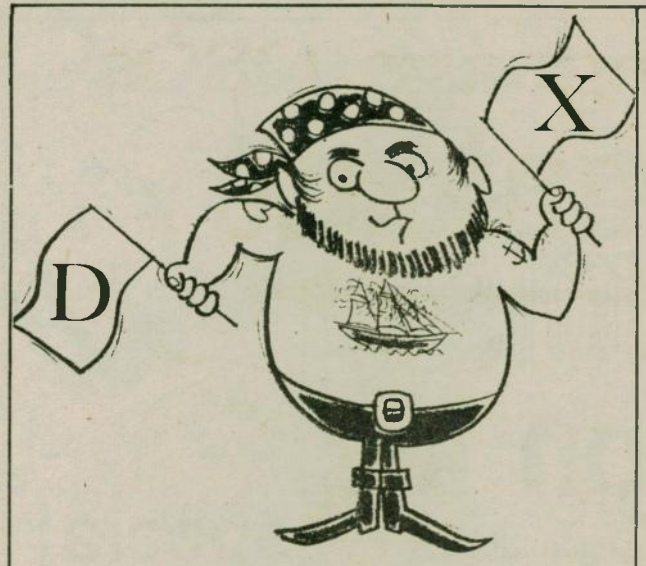

The big DX story seems to be the Tongareva DXpedition. Everybody must have worked them by now. In case you missed the QSL info for ZK1TA, it's 42 Donald Dr., Orinda, CA 94563.

More DX chasers are radiating from wire than aluminum lately. Alaska to South Africa paths are a 75 meter occurrence. The alarm on your GMT clock should go off at 0300 to start looking.

Inside sources say mainland China will be putting ham stations on the air to obtain "prestige" value. Might be wise for our State Department to make sure that someone on our staff there is a ham-type Asian and foreign service officer. A little swapping DX tales over some rice 807s would probably do a lot more than the official stuffed shirt encounters.

Speaking of China.... close to the situation there is our Consulate General at Hong Kong, Doug, VS6AW. After a tough day at the office, he relaxes at 14.030 or 21.030 and even 7.025 at around 1330Z.

As any U.S. ham who has traveled abroad knows, the foreign hams really lay on the hospitality when we are in their country. Here's a chance to pay a little of it back... Mike Friedrich. DJ5TH, will be in the U.S. during September. His trip is one in which pennies must be conserved so any reciprocal hospitality will be appreciated. (How many of us have been royally treated by the DL's or others?) Thirty-two year old Mike. who works for IBM and studied at Cornell on a scholarship, will travel across the states to Los Angeles via the northern route and return by a southern one. Let's see if he can find some new-found friends in Ithaca, Syracuse. Cleveland, Chicago, Sioux Falls, Rapid City. Yellowstone, Salt Lake City. Boulder City. LA, San Diego, Phoenix, Tucson, El Paso. San Antonio, New Orleans and Washington. Drop a line to DJ5TH.

While looking over other journals the DX desk spotted some writing by the intrepid Hugh Cassidy, WA6AUD, in the West Coast DX Bulletin. Hugh penned, in part, "...the feeling seems to be...that the ARRL must speak out when there are disagreements. even to the extent of questioning the infallibility of the FCC and its administrators".

Move that WA6AUD to the top of the Honor Roll.

Speaking of being "on the beam"...William Johnston, WB5CBC, has come up with computer derived great circle bearings to 660 distant locations from your QTH. The bearings are in degrees from true north as the author says the magnetic declination at any given location varies from year to year, sometimes as much as by ten degrees. He advises zeroing your antenna on true north (using the star Polaris) and go from there. The charts come to you on 8 1/2 by 11 inch paper (six pages) listing bearing, miles, kilometers, and return bearings (not always 180 degrees difference). The entire chart costs $1.00 postpaid worldwide or $1.75 airmail worldwide. Bill asks that you send 1. your name and mailing address; 2. the city for which you want the chart - include state and/or country; 3. If the population is less than 10,000 or if the location is a rural area, also include the latitude (indicate North or South) and longitude (East or West) in degrees and minutes; 4. Send to: Great Circle, 1808 Pomona Drive, Las Cruces, NM 88001 USA. For non-USA stations, Bill will take 7 IRC's or 12 for airmail, international bank drafts; Canada and Mexico may send local currency if they desire. We've sent for one, will describe it in more detail when it arrives.

Can DX be toxic? Can it turn from a pleasant break from all the other aggravations into a giant aggravation? Unfortunately for some, the answer is yes. Probably no other hobby has the anger rise up in its participants that DXing does. And the sad part is that, of course, such is totally unnecessary and casts a few doubts as to the stability of the "angry ones". There are many examples to draw from but the following seems typical.

A station in a "rare" location comes on the air...he uses his radio to talk to his friends. (Many of the overseas stations are well-travelled, they have many friends in several areas.) The two people are hard pressed to carry on their conversation without a host of breakers, not to enter the conversation, but interrupting, (or being rude) to get a contact so as to get a QSL card.

But it can even get worse. One "rare" station, a few months ago, talked to a friend of his for half an hour. (Incidentally the "rare" station was not exactly in one of the fun-filled areas of the world; he could have been "zapped" at any minute). The outcome of all this was an angry letter to an amateur radio publication talking about "gross inconsideration" and a comment about "rag chew" style QSO:"

The angry letter writer was upset that the stations in the QSO "would take no breakers" and he "really felt for those who needed" that particular prefix. Well, the "rare" station read the published letter and he said "working DX is not worth such personal abuse". He went on to say that they had been responsible for 4,000 QSL cards in a few months and that they didn't much care for DX anyway due to the "ugly manners and crude tactics".

Then that letter was printed and the original letter writer replied, "My comments were not intended as, nor do I believe they constitute personal abuse. If the shoe pinched someone's foot, I am sorry for the discomfort. Since the station is still needed by many. I would hope they would devote maybe an hour per day to '5-9, 73' QSOs".

Our only comment is "you gotta be kidding". Some hams lose track of what's going on. First, why should the station sit for an hour a day engaged in something he really doesn't care for. It's like asking someone to throw skeet in the air for you while you shoot at them. What does he care about your liking to shoot skeet. Secondly, the station in the "rare" spot was in a place of some danger. The writer of this column (WB6AUH) spent two tours in the country of the rare station. Every car driving up to the building where the "rare" station worked was searched for bombs, mainly because one car that wasn't searched had a bomb in there and wiped out a lot of people. And someone in the USA wants him to sit on his fanny and give out contacts for an hour a day.

But it may only be the result of the system. We have heard some rather sad statements at the various conventions and DX get-togethers. One ham said that if there were no new countries created he would lose all interest in amateur radio. We think that's getting pretty narrow. Another DX expert, in print, advised "once you work a country, never work it again. Don't waste time that you could spend looking for a new one". We believe that if you followed that procedure you would have a rather shallow amateur radio career.

How about, instead, spending a nice relaxing evening talking to people in these "rare" locations. Wouldn't it really be far more enriching to learn, firsthand, about the various areas. There are some very interesting, exciting people around the world.

You know, many amateurs really have some good pals they have made by radio in some of the remote and fascinating areas of this planet.

Ponder this; what if all the awards and certificates had never been invented? What if no standings were ever published? What if, instead, Amateur Radio was like a party? You went there and talked with others. Would we, as people, gain or lose?

What if DX really was an "international party line"? Might that not be more interesting?

Is any other avocation so award crazy? Do stamp collectors get an award if they collect 200 German stamps? Of course not. Doing it was enough; they don't have to prove it. Is there an award for travelling to every state? No. Is there any certificate for visiting 100 countries (certainly a far more difficult and enlightening experience than working a hundred countries)? Of course not.

What direction are we going? A recent item in Gus Browning's "The DXers Magazine" reported the following: "YK1BG-Syria...(Tnx to K7ABV) - On 14035 kHz at 0100 GMT - Quite an unorganized mess. Some bad name calling by W stations at other W stations at which point YK1BG QRT!"

Should DXing be a night of high blood pressure or a night of pleasant relaxed conversation? Let's hear your thoughts.

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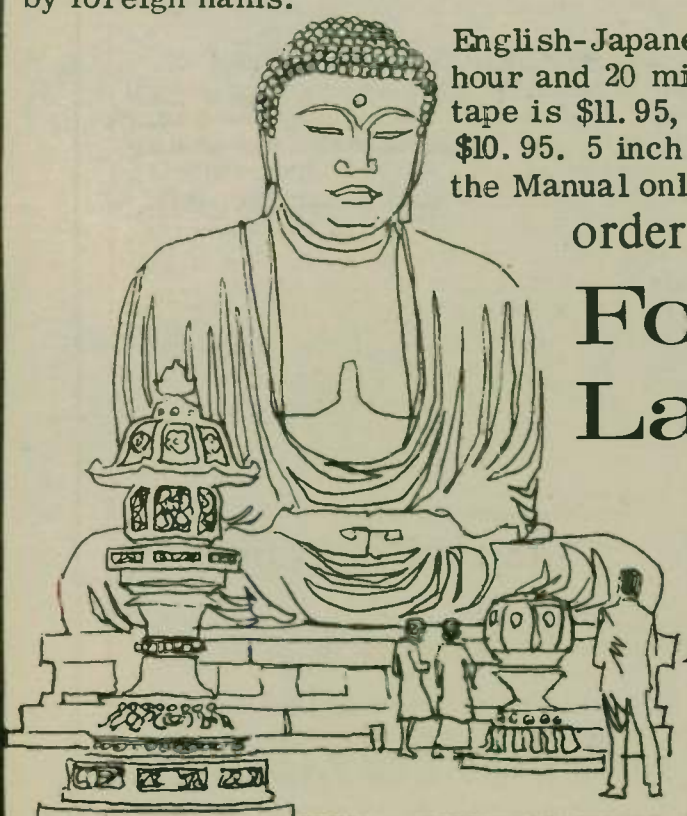

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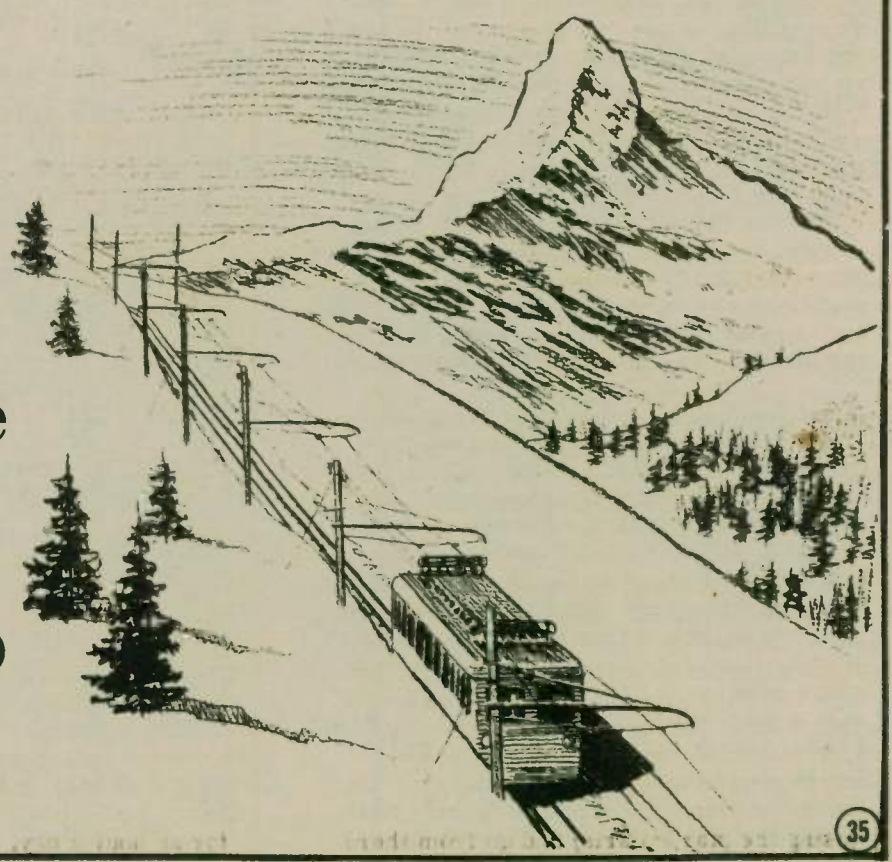
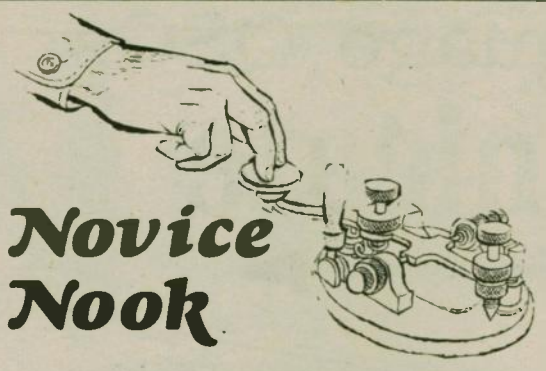
Acton, Mass. 01720

Carl Sletten, W1YLV





Novice Nook

Dan Morgigno, WN6RLK, who has WAC and WAS in his one year on the air, writes in to share some information - "Many foreign amateurs can be worked in the latter part of the evenings on 15 meters. I have worked many VK's and ZL's around 0400 GMT. They can be heard all over the band. Most of mine have been worked below 21.150 MHz. Not too long ago I received a 589 report from A. V. Bennett, VK2VA, while I was running 75 watts to an inverted V. Even though the band may seem dead, listen around for those weak signals. Try a CQ (short). I know that you will get the same thrill I do when you work another amateur thousands of miles away."

The above is pretty good advice. Dan is only 13 years old and should go a long way in Amateur Radio. We would like to see this column receive input from Novices telling others how and what they do, as well as some words of sage advice from some of the old timers.

Last month we promised to discuss the most important part of an amateur station. It is the antenna. The importance cannot be overemphasized.

Some hams think more power would result in more contacts. Not necessarily true. And, for the same dollar invested, you will always get more "bang for the buck" by investing in the antenna.

Let's say you have a 40 watt transmitter and you have your heart set on that Novice "gallon", a bright shiny 75 watter... "Oh, if I only had that" ... and visions of exotic QSLs (Israel, Liberia, India, Vermont, etc.) pass through your mind's eye. Well, the sad truth is, if you changed transmitters in the middle of a QSO, the operator at the other end might, that is might, tell you that you went up half an "S" unit. That is if your dashes were so long that he could get a reading on you. And you must admit that your pulling up your signal half an "S" unit isn't going to make the world beat a path to your door ready to crown the new "King of DX". (Doubling the power gives an increase of 3 db, one "S" unit is usually six decibels).

So what can one do? Concentrate on improving the antenna system. The single most important factor to the success of getting a signal out is the height of the antenna. Your time and money invested in getting it up in the air will pay the greatest dividends.

Antenna height is important for three reasons. First, you have to get it away from the house wiring, the rain gutter, telephone lines, etc. Such are signal suckers. You press the key and all the garbage around drinks in all that nice RF energy, swallows it down and says "Thanks, that sure tastes good, give me some more!" All the power that is absorbed in your back yard is less going to the other station. Second, antenna height affects the impedance. If you really want a good match, it has to get up there. Third, antenna height affects the angle of radiation. If your antenna is one quarter wavelength up, your precious signal is going straight up and straight down and that's not the way to Australia.

The higher the antenna the lower the angle of radiation. You want to make as few bounces off the ionosphere as possible when the signal is on its way somewhere. Each time the signal hits the ionosphere and the earth you lose a considerable amount of power.

You may find that the inverted V antenna will work out better for you than the ordinary dipole configuration. The advantages are that only one support is needed. An inexpensive TV mast can get the center of the antenna up in the air. Try to keep the ends at least five feet from the ground or other objects. The inverted V will have a lower angle of radiation than a dipole. And, with the ends more accessible than a dipole you can really get it trimmed to the lowest SWR. Do not let the angle of the upside down "V" get any closer than 90 degrees. If space is a factor it is not necessary that the tie-down points be, let's say, at 9 o'clock and 3 o'clock. The tie-down points can be at 9 o'clock and 12 o'clock. But again do not bring that angle any closer than 90 degrees. That antenna will have the lowest angle of radiation in the direction away from the ends. Alfred Wilson, W6NIF, had an article on that antenna in "Ham Radio Magazine" a few years back...and it really works. Also, the higher the antenna, the stronger the incoming signals.

Speaking of incoming signals.... if you have an older receiver and it has both RF and AF gain controls, you may find better selectivity by running the RF gain control down and the AF gain control up.

Now, at the beginning of your amateur career would be a good time to get started using GMT in your log and on your QSL cards. The reason for it is thus: Using Greenwich Mean Time all stations in the world enter, at a given moment, the exact same time in their logs. It is truly a "Universal Time", also referred to as "Zulu" time. This way when the other station gets your QSL card and it says 2000, he looks in his log under the appropriate date and finds 2000 and there you are. That is a much better system than sending him a card in Pacific Daylight Savings Time, which doesn't mean much to someone in Japan.

Another advantage is that when you make a sked with someone and you say I'll meet you at 0600 Zulu that means it will be 0600 at both ends of the circuit, and one guy isn't saying, "now if he comes on at 4 o'clock in the afternoon in Sydney, Australia, what time will it be here and I'll have to figure in our Daylight Savings Time"...and more confusion...

GMT is the same time everywhere, all year around. It's the only way to fly. So get used to it now. QSL managers are still being driven to distraction by amateurs (even old-timers) who send in a card in local time...agghhh. Mentioning QSL managers --when you send a card to a stateside QSL manager be sure to include an envelope; and on the envelope have your address and a STAMP. The reason for that is it could get rather expensive for the QSL manager to send out cards to everyone who wants them. So, pick up your share of the cost. The QSL Bureaus are another story and we'll talk about them in the next issue.

Many people think that most novices are youngsters; not true. About half of the Novices are men and women in their 30's. We will try to have things of interest for all ages in this column but will try to have helpful tips for the youngsters on a limited budget.

For some, whose every nickel is hard to come by, a fifty foot run of good coax looks like quite an investment. Is there a way around it? YES! An often neglected, but good antenna, is the folded dipole. You can build it out of 300 ohm line. You can get some in the discount stores for a few cents a foot. The feedline is the same 300 ohm line out of which you built the antenna. However, you MUST convert that 300 ohm impedance to 50-70 for the output of your transmitter. Use a balun with a 4-1 ratio right at the transmitter. You can use the same kind that some hams put up at the top of the antenna, but put it, instead, down at the bottom. In the classified section of this newspaper, one company sells a 4:1 ratio balun for a few dollars that you can use inside by the rig.

Hope you check in next month when we'll have some more helpful tips. If you have any questions, send them in; you'll get a personal answer back in the mail and we can use that question for the column and share the information with others.

Satellite Public Service

"Bush" or "out-back" communications, such as might be found in Alaska, Northern Canada, Australia, Antarctica or the developing countries, is analogous in many respects to amateur communications anywhere in the world. Many amateurs regularly use small portable HF and VHF transmitters and receivers, equipment installed in vehicles, and hand-held transceivers. The A-O-B satellites will provide long-distance VHF and HF communications, especially needed during nighttime or other periods when long-distance ionospheric communication at HF is difficult.

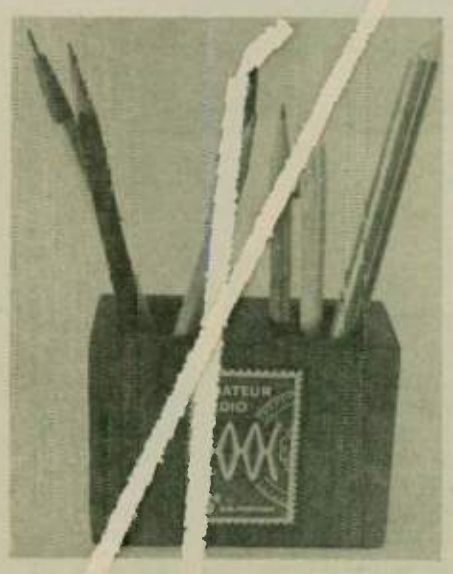
Radio amateurs on numerous occasions have provided the only means of communications in the time of emergency. The earthquakes in Alaska (1964) and Peru (1970) are but two noteworthy examples. In setting forth the basis and purpose of the amateur service, the Federal Communications Commission cites "... the value of the amateur service, particularly with respect to providing emergency communications." It is expected that the A-O-B series will be available in support of such emergency communications as a backup for HF radio, which is highly dependent upon favorable ionospheric conditions. The use of satellites for assistance during emergencies and natural disasters is currently a subject of study by the International Telecommunication Union.

Another application planned for the A-O-B series of satellites is the exchange of medical data. A number of cases have been documented in which amateur communication was used to locate needed drugs, diagnose a rare disease or give medical instructions during surgery. The A-O-B spacecraft will be capable of relaying such communications. In addition, tests are being arranged to transmit electrocardiograms from isolated areas to medical centers for diagnosis as a demonstration of this application for this type of satellite.
(Excerpt from AMSAT Report)

Stamp Packet

Postage stamps from around the world that depict the subject of telecommunications. An interesting new specialization in the old hobby of stamp collecting. When QRM and band conditions irk you, relax with a different but related pastime. The value of the 24 unused stamps are bound to increase in the future. Packet comes with facts about each stamp.

Postpaid AP-103-1 $7.00



Pencil Holder

Keeps your pens and pencils in ready reach. Oiled solid walnut with felt lined base. Features an etched, purple-anodized aluminum replica of "your stamp", a U. S. postage stamp issued in 1964 commemorating the nation's ham radio operators. A nostalgic reminder of when it only cost a nickel to mail a letter.

Postpaid AP-102 $9.00

Rotary QSL File (Roto-Photo CB-8)

Are your treasured DX cards getting worn out by constant "show-and-tell" sessions? Or are you running out of wall space for your collection? The CB-8 Rotary QSL File is your answer. Now you can protect and display those valuable QSLs in a compact desk top unit. Just a turn of the knob brings a new pair of cards into view. The file swivels on its molded plastic base and is furnished with 80 pages of transparent plastic pockets which hold 160 5½" x 3½" cards back-to-back ... enough for both DXCC and WAS cards. Refills are available to expand to 350 cards. File is pictured with 320 cards.

Postpaid AP-100 $8.00

Refills for CB-8

Package of 16 plastic pockets for 32 cards.

Postpaid AP-101 $1.00

Note: Actual knob shape and color, and base color may differ from photo.

Alkan Products *Box 3494 Papago Station • Scottsdale, Arizona 85257*

Name _____

Address _____

City _____ State _____ ZIP _____

Item No.	Qty.	Description	Price Each	Total
			Merchandise Total	
		Arizona residents add 3% sales tax.	Sales Tax	
		Scottsdale residents add 1% additional.	Total Enclosed	

This year why not invite your overseas friends over here?

Too expensi[ve] for them?

Maybe n[ot], this year.

Because, [t]his year, there are made-to-orc[der] bargains to lure them here. [B]argains in trans-ocean sea f[are]s, and air fares, just-for-ther[e]. And reduced bus, rail, and a[ir] rates, once they arrive.

And lots [m]ore. But some of them may n[ot] be available next year. And many of them must be arranged before your friends leave the other side.

So write to them. Tell them to talk to their travel agent or overseas carrier. (That way, they can get all the details.)

Then add one more thing. Tell them America is not so big and bustling that no one will have time for them—and you'll be around to show them the ropes when they arrive.

Now sit back and wait. With any luck, you may soon be showing them America as you see it. But better be prepared for one surprise.

You may soon also be seeing America as they see it—rediscovering it through their wide and startled eyes.

Send info on those for whom you manage QSLs to: Worldradio, 2509 Donner Way, Sacramento, CA 95818.

Radio Ripoff

by Robert Summers, KØBXF

All of you have some bits of nice radio gear that you paid hard earned dollars for, but what if it is stolen? People do buy hot used merchandise, you know. Can you identify it if the police supposedly recovered it?

Ask your local bank. They may have on hand some vibrator engravers you can borrow if you are a customer. Use this device to engrave your initials, Social Security Number or other identifying marks on your various bits of gear. Or use your call sign on something. Do you have any model numbers or serial numbers written down somewhere?

While you are about it, how about the rest of the house? Go through your home, room by room and list every item in each room. Put down what it is, when you got it, how much you paid for it, and what it is worth now. If you can't remember exact amounts or dates, just get as close as you can. On all items also list any model or serial numbers or identifying marks. This list should not only list tables, chairs, beds, etc. but should also include lamps, pictures, books, clothing, applicances, TV, tools, wheelbarrows, china, silverware, stamp collections, and anything else that has any value. Do you have a camera and a lot of pictures? An arrowhead collection? Old phonograph records? Some things like bed linens and both pair of holey socks should be lumped in a group.

Date this list. Make a duplicate of it and keep the other copy at your office, shop, in a safety deposit box, or at your brother's house. Bring the list up to date every few years.

If you have a fire, tornado, burglary or other disaster you will then have definite information for the insurance company adjuster. Your homeowners insurance covers only your personal property to the value that you have. And if you cannot show that value, you will not get paid in case of a loss.

Do it before it is too late.

(From "Midwest Chirps")

Many amateurs after having their equipment "lifted" have found to their sad dismay that their radios were not covered by insurance. Some excellent suggestions are given by Ash Palmer, K2EAW, President of the E. F. Ashley Insurance Co., whose article follows:

"Since 1954 mobile gear of various types have cluttered the underdash of my vehicles. During this span of time no trouble was encountered with 'other parties' removing the gear.

Having parked at the same 'attended' parking lot for over 15 years, the keys to the car were always left in the car as requested by the attendant so he could move the vehicle if he needed to. On October 30th, my TR-22 was inadvertently left in the car instead of being taken to the office as usual. The inevitable happened - the little TR-22 was missing when I picked the car up after work.... This leads to several points that all hams with mobile or portable gear should follow:

1. Never leave your car unlocked even in an 'attended' lot. Insist that the car be parked so it will not have to be moved and you take the keys. Most lots will co-operate.

2. In case of loss, make sure you are able to supply the police with serial numbers, description as well as the value of the equipment and make a report as soon as possible after the loss.

3. Engrave your name and address on the gear along with your Social Security Number using one of those little vibrator-type engravers.

A couple of interesting insurance questions came up also. Is the gear covered? If so, under what policy? This equipment can be covered by insurance if certain criteria are met. Your automobile policy covers only the car and its 'related' equipment permanently attached thereto.

Permanently attached ham equipment should be endorsed on to your auto policy if you wish your auto policy to cover radio items. This will eliminate any possible questions.

The other area of coverage is your homeowners policy. A good number of these policies contain an exclusion for theft from an 'unattended' automobile unless there are 'visible signs of forceful entry to the exterior of the car'. The thief can still get into your car and you would never know it. Check with your agent to see if you are covered."

(From "Ham-Hum" Omaha, Neb.)

ZANG!

"Worldradio" is growing. We want even more readers for this means more articles and a bigger paper for you. We'll send a free sample copy to anyone you suggest. Think of which amateur you admire most, one who hosts foreign hams in his home, or one who handles public service traffic, possibly a QSL manager, or someone who teaches Novice classes - the useful and active ham. Send in their name and call and they will get a FREE copy. Possibly that's how you got your first copy. Tnx.

you are invited

If you're not yet a subscriber this was a sample copy. If you like it please see page 27.

May 8, 1973

The Honorable Jim Wright
The House of Representatives
2459 Rayburn Office Building
Washington, D. C. 20515

Dear Congressman:

In our city as in most cities across this nation, there are thousands of Amateur Radio operators. These "Ham" operators enjoy a unique hobby in that they can offer communications in times of emergency when no other means are available. This fact has been proven time and time again when disaster strikes and the first word out of the area is from a Amateur Radio operator. The Fort Worth - Dallas metropolitan area Amateurs working hand in hand with the U. S. Weather Service and the Office of Civil Defense have developed an efficient tornado spotting network. This network goes into operation during severe weather conditions to give the Weather Service eyewitness reports from up to two hundred stations scattered throughout the area. This or any type of public service is the number one reason for Amateur Radio to exist.

Over the years, in fact for about fifty years, Amateur Radio rules set forth by the Federal Communications Commission have been flexible enough to encourage experimentation and growth of the hobby.

"And the Commission has always given us strong support. We were most pleased, as a very recent example, to hear Commissioner Robert Lee say of amateurs, 'They are our most responsible licensees. . . Their self policing is marvelous . . . Amateur radio is the only service where I couldn't suggest any improvement.' " (From an interview by Eunice Bernon, K8ONA)

It was with these rules that Amateurs have discovered, developed and improved many modes of communication with methods and ideas otherwise unthought of. It was also with these rules that networks such as mentioned in the Fort Worth - Dallas area have offered public service for many purposes. To name a few, there exists or have been networks for the distribution of Salk polio vaccine, the nationwide "Eye Bank" network, Crime Watch networks and the Radio Amateur Civil Emergency Services network that ties all Civil Defense offices together nationwide.

Recently the Federal Communications Commission's attitude in regulation of the Amateur Service, which over the years has earned the reputation for "self policing", has been overly restrictive. In fact, many of these new regulations tend to stifle the growth of what has been a very productive hobby and service to the nation. Should the F. C. C. policy continue as in the recent trend, Amateur Radio will cease to serve its purpose and as regulation increases, growth of "Ham Radio" will decrease or completely die. To cite some of the instances of the Commission's attitude toward regulation, a notice of rule making was published on Docket 18803 concerning Amateur Radio repeater stations. This notice asked for comment on the intended rules. As the intended rules were so completely restrictive, Amateurs across the nation responded with a flood of formally written comments that voiced the opinions of almost every Amateur Operator in the country. Hardly without exception these comments asked for relief in the same areas of the intended rules, specifically in control, logging and monitoring of Repeater stations. When the report and order of this docket was published, after the comments were supposed to be reviewed by the Commission, the resulting rules ignored the requests for relief and imposed added restrictions such as antenna radiation patterns, precise terrestial location, calculated and measured power output, antenna gain, system diagrams, technical description of station operation, tandem operation prohibited, cross-band operation prohibited, among other restrictions. Subsequent petitions by Amateur clubs and individuals for relief in any aspect of the repeater docket have all been totally denied as being without merit.

With this aspect of Amateur radio totally disabled with regulation to the point that it takes a professional communication engineer working with commercial equipment to set up and license a "Ham" station the F. C. C. has now set out to restrict the Amateurs back yard antenna system. Federal Communications Commission's Docket 19555 proposes to regulate radio towers and antenna structures for "environmental" purposes. Local zoning ordinances and the Federal Aviation Agency have, for years, regulated these structures without problems but now the F. C. C. proposes to add their restrictions applied specifically to the Amateur. The purpose these new rules would serve is without doubt questionable but, should the Amateur operator seek relief from these rules? If he voices his opinion of this matter will it be met with the same results as his efforts on Docket 18803?

With all the recent rule changes in the Amateur Service and apparently more in the rule making stages the Amateurs try to make their needs heard, but the Federal agency that is supposed to be so familiar with all aspects of their hobby apparently does not care to listen to the wants and needs of the very people for whom their agency exists.

Honorable Sir, the Amateur Radio community begs your investigation of this situation and should your findings be in accord with the facts as outlined here, then Amateur Radio is in dire need of your assistance.

Respectfully,

George C. Williams, WA5KTO
Chairman of the Board
Fort Worth Chapter
Texas VHF-FM Society
6500 Banbury
Fort Worth, Texas 76119

"A funny thing happened to me in the shack the other night"

by Alan Shawsmith, VK4SS

My passion in AR is known as 'Contest Capering' and I've been at it more years than I care to remember. The competition's so tough nowadays that even a few minutes away from the rig in a two-day contest can mean many lost points. Being an OT I now don't last as well as those in the full zest of youth. Aches and pains develop from prolonged sitting and a headache invariably develops from the constant QRM.

Recently I was going great guns and really piling up the points when the aforesaid aches began to sap my concentration. 'Modus operandi' in the radio shack at night is to have the room in darkness with only a small light on the receiver dial and log book. Hearing my small daughter in the bathroom I called to her to bring me a glass of water and a headache powder from the cabinet. This she did and I gulped it hurriedly down. It seemed to taste odd but I was too busy to bother.

The contest dragged on and the headache only got worse. At bedtime, my daughter came in for a good night kiss. I asked her for another powder and again it tasted lousy but I blamed it on the dryness of my mouth. About an hour later I began to feel light-headed and queasy and had to lie down on the shack divan.

"Honey," I called, weakly to the YF. "You still up?"

"What's wrong?" The voice from the bedroom was unsympathetic.

"I don't feel so good - musta bin somethin' I ate."

"Well, it wasn't dinner or supper. You've been too busy to eat."

"I've only had a couple of headache powders and it couldn't be them."

There were sounds of the YF hurriedly getting out of bed. She appeared from the bathroom, switched on the light and held out a box of powders and said, "There's no analgesics; I forgot to get them in."

"Well, what are these?"

"De-worming powders for the dog."

"De-WHAT?" Rage overcame my aches and pains. I sat up and bellowed, "That bloody hound has more status around here than the rest of the family." Since when does its medication mix with ours?" I sank back miserably onto the divan. "Get the doctor, I feel 'crook'."

"It's eleven p.m. You can ring him with a tale like that at this hour, but not I!"

The local GP is a pretty good friend so I dialed him. " - er Mac," I said sheepishly. 'T've just swallowed a couple of de-worm dog powders. I thought they were aspirin - ."

"You're on the booze -."

"No, no, no, it's fair dinkum. I really did and now my insides -."

A great guffaw echoed out of the headset. "Listen pal, you don't

need me, you need a vet!"

"Very funny," I said testily. "All I want to know is - well, will I be OK?"

"Ha, ha, ha, they're a purgative you know but will probably do an old dog like you more good than harm. Just ignore the symptoms and carry on."

I did carry on - all the weekend - but not in the contest.

Blind Become Amateurs With Help From Hadley

Blind persons interested in becoming amateur radio operators can now prepare themselves for official licensing and successful experience as "hams" through a special free correspondence course developed by the Hadley School for the Blind, Winnetka, Illinois.

Titled Amateur Radio Theory, the course was launched six years ago and rapidly became one of the school's most popular studies --so popular, in fact, that a ceiling had to be placed on the number of active enrollments and a waiting list grew.

Now taught by course-designer Byron Sharpe, W9BE, and a second Hadley instructor, Amateur Radio Theory has been opened to unlimited enrollments and the word is spreading. Already approximately 50 prospective "hams" have been graduated, almost all of them are on the air, and nearly 100 are presently enrolled.

The students vary greatly in age, background, and geographical location. They reside in all parts of the United States and in such faraway places as Scotland, Mexico, New Zealand, the Philippines, and India. One graduate is an eighty-two-year-old medical doctor who recently lost his sight; another is a high-school senior who has been blind since birth.

Offered without cost, AMATEUR RADIO THEORY is available in Braille and on tape. The fourteen lessons present essential topics: alternating and direct current; vacuum tubes and their uses; transmitters, receivers, and antennas; Morse code; and the regulations of the Federal Communications Commission. Each section of the text includes a series of questions designed to gauge the student's understanding of the material. The student types or tape-records his answers and sends them to his instructor, who in turn responds with a personalized letter or tape of correction, explanation, and encouragement.

By mastering the content of the lessons, the prospective "ham" prepares himself to take the FCC examination for a General Class amateur operator's license. So far the Hadley graduates have an almost perfect record: the FCC test has been successfully passed by nearly everyone who has taken it.

Hadley "hams" speak enthusiastically about their hobby. In addition to the sheer fun of "rag-chewing" via the air waves, they find satisfactions through many public-service and civil-defense activities. As one graduate now puts it, "my only regret is in now realizing what I've missed by not getting into amateur radio years ago."

Under the volunteer chairmanship of Mr. Sharpe, the Hadly Radio Department maintains an active ham club with its own station, WA9WHS. A generous grant from the Marian Falk Foundation has provided for a complete highest-legal-power radio station. The group plans to conduct informal on-the-air meetings and schedules twice a week.

The Radio Department welcomes inquiries about its course and its club. All communications should be addressed to the Hadley School for the Blind, 700 Elm Street, Winnetka, Illinois 60093.

Service Awards Go To Hams

by Jim Weaver, WA8COA/WA9FEW

Each year the Disaster Committee of the Cincinnati Area Red Cross Chapter honors volunteer workers who have served the Committee for one year and multiples of five years. Each year, also, radio amateurs literally dominate the list of workers recognized.

Domination of the recognition picnic is twofold from the numbers of amateurs honored as well as from the lengths of service they represent.

The May 17 picnic was no exception. Of the 31 volunteers hosted at the General Electric Employee's Athletic Association Park in Springdale, 11 were radio hams. And, of the total of 232 years represented by the 31 workers, hams represented 115 years.

Radio amateurs were tops in length of service among the group with Paul Luhn, W8MXR, of West Chester receiving the only 30 year pin given and Ron Dieselberg, W8PCK. of Madeira the only 20 year award.

Hams receiving 10 year honors included Greater Cincinnati's "Mr. Ham Radio", Elmer Schubert, W8ALW, of the Bridgetown area. Other 10 year workers were Ralph Hultgren, WA8ELC, Wyoming, and Eddie Retherford, WA8GRR, and Jim Weaver, WA8COA, of Forest Park.

Five year pins were given to Bill Bennett, WB8ALU, Cleves; Charles Rielage, W8QIW, Fairfax; Eddie Bernardi, WA8SOT, Finneytown; Joe Burke, WA8OGS, Colerain Township; and Bill Riehle, WA8EKV, Batavia.

The radio amateurs are members of the Queen City Emergency Net and the Northern Kentucky Amateur Radio Club. The two organizations are emergency communications affiliates of the Cincinnati Red Cross.
(From the Cincinnati, Ohio "Enquirer")

EDITORIAL

Armond Noble, WB6AUH
Editor, Worldradio

The biggest topic in Amateur Radio today is the deterioration in the relationship between the American Radio Relay League, the amateurs themselves, and the Federal Communications Commission.

It is indeed regrettable that such came to pass and responsible parties on both sides do hope that a rapprochement will take place soon.

Harmonious relationships will not occur if certain actions continue. It is completely inappropriate for an employee of the Federal Communications Commission, in a speech to a convention of amateurs to "tweak the noses" of the Board of Directors of the American Radio Relay League.

If anything, it is entirely appropriate for the Board to say anything they wish about the actions of the FCC.

Let us examine the role of government under the system found in the United States of America. It is self-government. You are the government. Those who do the work are public servants. They are your employees. Thus it is inappropriate for someone to make disparaging remarks about his employer.

In this country government employees have no "divine right". And if one of them makes pronouncements about what he wants to do, what he wants to change, it is entirely within the rights of a citizen to say, "Don't do that, I don't want it that way". And your vote, in this republic, is as good as his. And if you can get someone else to feel the way you do, then you have two votes to one and that becomes a majority. And that, in a democracy, is the "name of the game".

One must examine what the majority of conflicts around the world have been about. People want the right to determine their form of government and the right to determine who governs them. When they are denied one or both, they get angry. And rightly so.

Let us examine the parties in the dispute. On one side is the Board of Directors of the ARRL. Who are they? They are sixteen men, elected by their peers and therefore responsive to their constituents. They bring a variety of interests to their duties. Their responsibilities are to guide the League and the League articulates the positions of the amateurs before the FCC. Due to their broad backgrounds and input from members their interests are not confined to the particular and narrow.

On the other side are government employees. Recently a meeting was proposed between some of the most responsible amateurs and one particular FCC employee. The word received here was that the employee was "reluctant" to meet, but did so. We think he has the situation backwards. It is the citizens who "run the show" and the government had best start listening to them.

It seems to be inherent in the nature of government that it takes away. The recent repeater rulings are evidence of that. What could almost be termed a non-problem, became staggering and thus the FCC was burdened with a lot of unnecessary busy work. We have never heard a clear description of what constructive effect all the repeater rulings were to have. Can anyone name a positive result they have accomplished?

A very large number of mature, responsible amateurs have called the actions of the FCC "restrictive". If these people feel that is the way the government (their government) is operating, then it is probably true.

A recent unsigned editorial in an amateur radio magazine said that the recent ARRL Board position was designed to appeal to the "Archie Bunker" emotions. That was indeed an unfortunate choice of words.

Let's look at who is upset about the FCC. Recently in Los Angeles I was talking to a distinguished physician. A real humanitarian, he is responsible for great quantities of medicines, medical supplies and equipment to be distributed to the needy people of less fortunate countries. (We could chronicle his great deeds but that would lead to his identity which is not the point here.) This gentle and humane person has been driven to vitriolic criticism of the actions and attitudes of certain FCC employees.

There is probably no other avocation that has the high caliber of participants found in Amateur Radio. With its doctors, lawyers, professors, engineers, executives, etc., it possesses a great body of intelligence and knowledge. To just totally ignore what these responsible people want, and just shove rulings down their throats, is sheer arrogance.

Strangely enough, Amateur Radio may have more to fear internally than externally. We cannot have people calling those who are on the other side of an issue "Archie Bunker" any more than we can have an ARRL director, (in front of a group) calling a man, whose contributions to the League and Amateur Radio have been immense, a derisive name.

A house divided will fall. It is entirely possible for fine people, on both sides of an issue to disagree without giving each other verbal back of the hands.

Reasonable people will give an opposing viewpoint a full hearing. There are those who believe that Amateurs need government guidance, direction and regulation to attain certain goals. Others feel only the barest minimum is necessary. As with most issues the best path may lie somewhere in the middle.

However, we must look at the track record of government. It has the Midas touch in reverse, everything it touches it messes up. It appears that it feels its role is to pile regulation upon regulation, never consulting with those it regulates as to the practicability of the regulations.

The Wall Street Journal has recently run articles telling of those in the securities business saying "we could solve our problems if the government would just leave us alone".

Why are there so many people who, rather than participate in a given field, instead wish to be its regulators?

Is the ARRL Board of Directors and other amateurs the only ones who think that government is becoming restrictive?

For the answer, in another - but similar - field, we turn to an editorial by Richard L. Collins in the June 1973 issue of "FLYING" Magazine. In part he said....

"....the Government has done very little for aviation over the years. If anything, the attitude of some people in Government has been one of working against aviation instead of for it. The regulatory system that has been developed is confusing. "...."Aviation might be unshackled from the chains of an overgrown bureaucracy that now spends most of its time complicating what is basically simple."....

Mr. Collins went on to say that rather than aviation constantly justifying itself to the government, that possibly the government should have to justify its role in aviation - to the user, who pays.

Could one pull out the words "aviation" and insert "amateur radio" in the above two paragraphs?

Does the "great white father" in Washington have all the answers? Probably not. Should people criticize the actions of the government and its employees? Of course. Whose government is it?

Should amateurs debate the issues? Yes, as long as they debate the merits of their arguments and leave personalities out of it. When you throw mud, many think you are using it in the place of logical argument.

Who should ultimately decide the direction of Amateur Radio? We throw our vote to the majority of amateurs. There is enough wisdom out there to guide us well.

And can any one person say that he knows better than all those bright people out there?

And so the responsibility of guiding Amateur Radio falls to all those bright people out there. And to guide it they must speak up. They must speak up loud and clear.

And they must be heard!

International Reciprocal Operators Club

What is the IROC?

It is a non-controversial, independent club, founded by fellow amateurs working under reciprocal agreements, portable and fixed in all parts of the world. Its aims are:

(a) to foster the establishment of reciprocal amateur radio operating privileges worldwide.

(b) to work towards the expansion of existing agreements for alien operators.

(c) to provide licensing information to hams everywhere who want to operate abroad.

(d) to establish "licensing kits" that include the necessary forms, official and "unofficial" contacts and general important info to hams.

How can I become a member of the IROC?

There are two ways to become a member. One is by being a reciprocal operator yourself and sending a copy of your home and foreign license and a QSL with details of your operation abroad to:

IROC, Box 11, Medway, MA 02053 USA

Please enclose a s.a.s.e. or two IRC's.

A membership certificate is available to those who desire one for a fee of one US dollar or 10 IRC's.

The other way is by working the reciprocal operators and applying for the WRO, "Worked Reciprocal Operations" Certificate. All WRO award holders are automatically IROC members.

I cannot buy IRC's or dollars in my country - can I still participate?

Yes, you can. Membership and awards are free for hams in countries outside the Universal Postal Union, and require no IRC's or fees.

Can I help?

Yes - it will only work if many hams from many countries get concerned and help in establishing contacts through their amateur radio organizations, their government agencies and through personal commitment.

The IROC is presently establishing a file with worldwide licensing information and all information regarding this subject is most welcome.

News

News of IROC activities will be reported in Worldradio/NEWS.

AWARD PROGRAM IROC

WRO "Worked Reciprocal Operations" Award

Basic award issued for working at least 20 different reciprocal operating stations, or reciprocal stations in all six continents.

Stickers are issued to the WRO Award for an additional 20 stations.

Reciprocal stations for the purpose of the award program are those operating in another DXCC country.

For example: DL8UI/YV5,
W1AA/KP4 or
OH1AA/OHØ

Refer to the ARRL DXCC country list. Stations operating portable in their own DXCC country do not count.

For example: W1AW/4,
W9AA/9 or
KP4AA/KP4

However, so-called alien licenses (calls issued to foreign nationals) do count, when the home call of the station is noted in the application.

For example: G5ABC (home call XE1AA)

PA9VC (home call F5VC)

Also, operations of foreign nationals using a local station count if the operator's call is noted in the application.

For example: HV3SJ (operator DL1CU)

Send logbook copy certified by two licensed hams or a club official with one US dollar (or 10 IRCs) for the basic award to:

IROC, Box 11, Medway, MA 02053 U S A

Stickers/Endorsements are free (send s.a.s.e. or IRC to cover mailing expense).

The award is also issued to SWLs. All rules apply the same as for radio stations.

Awards for hams in countries outside the Universal Postal Union are free.

To: International Reciprocal Operators Club, Box 11, Medway, MA 02053 USA

Award Application for WRO Award
new / endorsement /
previously issued # _____

20 - 40 - 60 - 80 - 100 - six continents

enclosed_____IRCs_____US-Dollar

Date: _____

send award to:
Name
Call
Address

We certify the logbook extract:
Sign call
Sign call

Proclamation
Radio Amateur Week

WHEREAS, The Radio Amateur, or Ham Operator as he is more familiarly known, is composed of men, women, boys, girls, sometimes handicapped, deaf or blind; and who for more than seventy years has designed, developed and promoted the art of radio communication; often opening up new bands of radio frequencies which were considered unusable, and;

WHEREAS, the Radio Amateur has been called upon in times of war emergency to become the backbone of Radio and Radar Operators and Technicians in the various military services, and;

WHEREAS, The Radio Amateur has been the first to respond to emergency situations including earthquakes, floods, major fires, persons lost and medical urgency, and;

WHEREAS, the Amateur has always been ready to volunteer time, equipment, services, and training in the interests of Civil Defense for communities, counties, state and federal agencies, and;

WHEREAS, the Radio Amateur service has supplied an outlet for young people to become acquainted with radio communications and hence to obtain licenses to operate radio equipment, and;

WHEREAS, the Radio Amateur through Societies and Clubs has fostered back-up radio communications for the various law enforcement agencies in all municipalities, and;

WHEREAS, the Radio Amateur has been responsible through research and development for much of the sophisticated radio equipment in common use today;

THEREFORE, BE IT RESOLVED, that the week of June 18 through June 23, 1973 be designated as Radio Amateur Week in recognition of the valuable contributions and services that the Amateur Fraternity contributes to the art of radio communication; in recognition of these achievements, I, Phillip Johnson, Mayor of The City of San Fernando, California proclaim said week as Radio Amateur Week to call to the attention of all citizens the contributions of amateur radio operators in our community.

CITY OF SAN FERNANDO
Signed: Phillip Johnson

Next Month

A feature story about Don Wallace, W6AM, titled "Sixty Years of Enthusiasm" by John Troster, W6ISQ -- The complete text of the speech by A. Prose Walker, W4BW, Chief, Amateur and Citizens Radio Division, Federal Communications Commission at the Western New York Hamfest and the Orlando Hamfest -- Details on the VK-ZL Oceania DX Contest -- QCWA News -- A plan to combat intentional interference -- The story of Collins Radio -- and interesting, informative news

Slow-scan TV, with its phosphorescent images, can draw you right into another person's life quite easily and painlessly. It can be a real help in reducing the barriers, and facilitating deeper levels of communication. Through my slow-scan column in CQ, I am trying to stimulate SSTVers into trying real communication. I'm also trying to interest those who already know how to communicate in taking advantage of the additional dimension that SSTV can offer.

This Fall there will be one or more new round-tables dealing with matters of significance to the inhabitants of our tiny planet. SSTV will be used when its capabilities help the communication process; but ideas will be the heart of what's going on, not hardware. I would like to hear from any Worldradio readers (with or without slow-scan gear) who are interested in helping to make such get-togethers happen.

Copthorne Macdonald, WØORX
P. O. Box 483
Rochester, MN 55901

IMRA

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

People Helping People

by Sister Mary, WA5VBM

Shirley Bouquin, WA3RXQ, was awarded a beautiful plaque from the Department of Transportation of the U.S. Coast Guard. The wood laminated certificate is in appreciation for handling the communication for one of the Coast Guard's isolated Loran stations. Shirley has also offered her services to any sightless members of IMRA. If you would like to have a copy of IMRA Newsletter on tape, please notify Shirley.

On May 24, Walt Thain, WB4KKB, received a request to locate, Dr. Henry Stern, WB4IHM. Walt traced the Doctor to Waspam, Nicaragua, and through the help of Dr. John Schindler, W4RFA; Tex Barbarite, W3FUS; Brother Frank, YN4ICC; and a donkey (the donkey carried Brother Frank and the message the final seven miles to Dr. Stern's QTH) got a message to the Doctor that he was requested as senior surgeon at another hospital.

I guess Walt, WB4KKB, felt he needed a vacation after all that... so he left on June 22 to attend the Marco Convention in New York. From there he will go to Boston and fly to London, Munich, and Salzburg. After attending a medical convention in Salzburg, Walt hopes to go on to Moscow and then to Jordon to visit JY1.

Sam Ashdown, W4HLY, finally returned to Melbourne, Florida after his "safari" to Connecticut for his son's graduation from the Coast Guard Academy. He met all the IMRA members in Rochester, New York at least by land-line if not eyeball. He also visited Dolores Vasilow, W2EWO, in Oswego, New York, and Pinky (Earl Pinkston), K3CVY, in Annapolis, Maryland. (Pinky, by the way, is a professor of physics at the Naval Academy). He also visited Warren Mulhall, WA2BPV, who was working at Fort Eustis, Virginia.

Father Barnabas Eib, formerly T15BE, now WN2MJE, has been elected vice-president of Radio Amateurs of Greater Syracuse (RAGS).

Warren Mulhall, WA2BPV, has been checking into IMRA as Maritime-Mobile. Would you believe.... from an Army "boat" in the James River???

Father Paul Hart, WAØRIE, has been on the sick list. He has had quite a bit of surgery and is likely to have more.

Also on the sick list.... don't forget Joe Lanno, WB4JOB. He is using a lung machine with an oxygen tank and they are not in the same room with his rig. He does get on the air almost every day for about ten minutes, but cannot do any rag-chewing.

Please make the following corrections on your permissable prefix list which was published in IMRA Newsletter of May-June: Add "OA" which was omitted through a typing error. Also, add "JY" and "TG" which are brand new and official.

International Mission Radio Association Inc.

14.280 MHz

On June 9, there was a mini-convention of IMRA in Lima, Peru... or at least it seemed that way. Father Vince Linnebur, OA5AQ; Father Ed Schmidt, OA4SS; and Marie Sutter, OA4CYC, made up the quorum.

Tom Barbour, W9LII, now has Net Manuals for anyone who desires to have one. You must ask for one, though. They are not going out automatically to all the members, but anyone who is interested enough to ask for one will receive it free of charge.

IRELAND

THE AMATEUR RADIO SOCIETY OF IRELAND

(INCORPORATED 1972)

REGD OFFICE . 64 HARCOURT STR., DUBLIN 2.

ALL CORRESPONDENCE TO: HON.SECRETARY, c/o POB 73, ATHLONE

Council members taken at inaugural meeting. Front row (left to right): Robert Williams, EI7AF; Anne Williams; Patrick Floinn, EI3AR. Back row: Brendan Nichol (Hon. Sec.); Michael Burke, EI4AL; Paul Quast, EI5BH; Michael Mannion.

About two years ago a group of serious-minded Irish amateurs came together with the object of putting organized amateur radio in Ireland on a more popular and business-like footing.

After much research and advice from legal sources, it was decided to form a new society which would conform to legal procedures as laid down under the Companies Act of 1963, with the proviso of not having any share capital and without the word "limited".

The Amateur Radio Society of Ireland came into being as the FIRST and ONLY incorporated amateur radio society in Ireland.

The main purposes of the Society are as set out from extracts from the Memorandum and Articles of Association of the Society:

To provide a service for self-training in intercommunications and technical investigation carried on by amateurs and experimenters, that is by duly authorized persons interested in radio technology solely with this aim and without pecuniary interest.

To promote the advancement and knowledge of radio amateur communications, radio experimentation and short wave listening.

To promote the efficiency and usefulness of its members to the public by setting up a high standard of general educational knowledge and by enforcing the observance of strict rules of personal conduct as a condition of membership.

To form an organization immediately available for consultation by the Government.

To maintain the radio amateurs, experimenters and short wave listeners in a proper status among the other learned and scientific professions.

To encourage original research in radio and to make grants of money, books, apparatus or other matters or things in connection therewith.

To encourage the development of the natural resources in Ireland by the application of radio communication, radio experiments, radio transmission and reception.

To represent the radio amateur, radio experimenters and short wave listeners of Ireland.

To petition the Government in the interest of radio amateurs, radio experimenters and short wave listeners in Ireland.

To arrange for the delivery of lectures and the holding of discussions on subjects of general and special interest to members, and also for the exhibition of any new, improved or other apparatus for radio research, or any new or other experiments illustrative of radio laws or phenomena.

To print and publish, and to sell, lend and distribute any communications made to the Society, or any other papers, treatises, or communications relating to radio and any reports of the proceedings and accounts of the Society, and for this purpose to cause translations to be made of any such papers, treatises, or communications as shall be in a foreign language, and to illustrate any of the publications.

Negotiations have started to sign a reciprocal agreement between Mexico and France, to grant facilities to Radio Amateurs of both countries.

In the above photo (left to right): Jorge Mendoza, XE1SH, Presidente of the LIGA MEXICANA DE RADIOEXPERIMENTADORES; Monsieur Robert Brochout, Honorary President of the French Radio League; Ing. Luis Valencia, Mexican Official from the Communications Department, who presented to M. Brochout a special permit to operate in Mexico, and Mr. Javier Maya, from de Radio Club del Valle de Mexico.

Two Hundred Meters and Down

by Clinton B. DeSoto

Courtesy of ARRL

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

* *

Continued from last issue.

Part I - Pioneers

Chapter Four. . . The Coming of the Law

There is little doubt but that this situation led to the flurry of attempted radio legislation that began with the Roberts Bill of 1909. This was a trust measure, sponsored by the government - meaning the Navy. There was some individual amateur opposition, constituted principally in the person of Charles H. Stewart of Saint Davids, Pennsylvania, but no organized resistance. It was the Marconi Company that caused the defeat of this bill. They argued that the interference was due only to the fact that the American commercial companies and the Navy had obsolete equipment, without adequate tuners, in most cases as much as three years old; and that the damaging interference claimed would not be experienced if modern tuners were used. The Marconi Company had such tuners, and in fact were about the only folk outside of the amateurs to have them.

This legislative battle, and the many which followed, were shining masterpieces of competitive intrigue. The Marconi Company was consistently the ally of the amateur during that period of struggle - this through no feeling of altruism on their part, but for several well-defined and thoroughly selfish reasons. In the first place, they had no appreciable quarrel with the amateurs, since they were not greatly troubled by interference; at the same time, they recognized amateur radio to be a useful training ground for operators, and even conceded the possibility of some worthwhile large experimental development which could well be undertaken by its great numbers.

An even more important consideration, however, was the competitive edge this policy gave them over their domestic competitors, principally United Wireless which, as has been said, was looked upon as the radio trust of that day. The Marconi people adequately publicized this angle, widely broadcasting to the press and in magazine articles testimony given by their executives before Congressional investigating committees in which they loudly proclaimed that it was only because other companies had equipment inferior to theirs that legislation was demanded; all of which, of course, represented just that much valuable free advertising on the theme, "Let us handle your communications, since we obviously can do it so much better."

The third and most important consideration of all was the fact that they wanted to sell equipment to the Navy, and the Navy refused to buy, ostensibly because of the high prices asked. The Marconi Company felt that if they defeated the Navy's plan to abolish amateur radio and thus reduce interference to proportions with which it would be possible to cope, the Navy would be forced to modernize their equipment - and modernization would probably mean the purchase of Marconi equipment. Even failing actual defeat of the measure, a considerable favorable public sentiment would probably be aroused, and this alone might force some purchases by the Navy.

To counteract the Marconi publicity the other interests promoted some of their own. The correspondence columns of the daily press and the controversial weeklies rang with the battle cry. Proponents and opponents of amateur radio grew vengeful and maudlin by turns, hurling charge and countercharge. It was really quite the topic of the day. The January 15, 1910, issue of the "Outlook" carried a 5-page article, largely denunciatory of amateur radio, on the subject of interference.

All this is evidential of the surprising importance of amateur radio at that early date, more than twenty-five years ago. It was estimated that there were four thousand amateur stations by 1910. Boston alone had three hundred stations registered with the Harvard Wireless Club; there were several hundred in the New York, Washington, and Baltimore areas respectively. Three magazines catered more or less exclusively to the interests of these hobbyists. Several manufacturers made a business of supplying their gear.

The thing that the legislators and their advisers did not seem to realize was that such a body of individuals, incoherent and incohesive though they were, by the very token of their intense interest in their common art could not by an Act of Congress be crushed out of existence. Even at this early date those with sufficient social intelligence recognized that amateur radio could not so abruptly be suppressed. Even R. A. Morton, author of the "Outlook" article, while far from laudatory of the amateur himself, recognized this fact, and emphasized that some form of wavelength division was the probable solution.

The solons persisted, however. On March 8, 1910, the Burke Wireless Bill was introduced. The Depew Wireless Bill, S. 7243, introduced on May 6, 1910, was the next attempt. These bills had a standard formula: they provided for the registration of different classes of stations, and then made it illegal for outsiders to interfere with these stations. The amateur, who was not mentioned by name, was to be dealt with by the simple expedient of declaring him a lawbreaker if he interfered with any of the registered government or commercial stations, and subjecting him to more or less stringent penalty.

The Depew Bill was the first to arouse much active amateur opposition. Throughout the East, individual amateurs rose up in arms against it, inspired to some extent by editorials in "Modern Electrics" and acting in many instances through the numerous radio clubs which were then beginning to spring up throughout the country. The Junior Wireless Club of America, Limited, in the persons of W. E. D. Stokes, Jr., and George Eltz, carried on a particularly forceful opposition, both by correspondence and in statements at the hearings. A brief was also filed on behalf of the Rhode Island Wireless Association by Samuel W. Bridgman, 2nd, chairman of their legislative committee. Although the bill passed in the Senate, it failed of passage in the House and was eventually discarded.

Undaunted by these defeats, United Wireless and the Navy continued their fight. On December 11, 1911, the Alexander Bill was introduced in the House. It followed along the lines of previous attempts, having for its object the abolition of amateur radio without dignifying it by name. The Junior Wireless Club, now the Radio Club of America, took an active part in the opposition to this bill. The greater part of the burden, however, was borne by Charles H. Stewart and B. Frank Rittenhouse, representing the Wireless Association of Pennsylvania, organized in Philadelphia in 1911. The Alexander Bill eventually went to the Senate, but not before a similar bill had been introduced there and defeated - the Smith Bill, S. 5630, read on March 4, 1912. All in all, during 1912, thirteen bills dealing with radio were introduced. One, H. R. 23716, which the Navy attempted to put through without outside support, contemplated government ownership and operation of radio facilities.

But despite all these lost bills, the radio art was not destined to continue without benefit of legislation throughout the year 1912. The Berlin Convention of 1906 was not ratified in this country until April, 1912, just in time for our delegates to go to the London conference of 1912 and see that convention signed in July of that year. These delegates returned from the meeting armed with detailed regulations for the governing of the newly-arrived industry and the now well-developed art. These were disclosed confidentially, in advance of publication, to the lawmakers, and they set about making a new law based on the international provisions. Apparently tiring of the continual fruitless introduction of new measures, they took the Alexander Bill as it had come from the House and amended it to make something out of it. The thing they made out of it closely resembled the London treaty, and became the basic law of the land for fifteen years.

There was just one detail in which it differed from the international treaty and that was a detail in which it differed from all previously attempted legislation. That detail was the historic Regulation Fifteenth, which specified that private (amateur) stations could not use wavelengths in excess of two hundred meters, except by special permission.

The legislators - or someone capable of lending them inspiration - had had a new idea. The attempts to scuttle amateur radio by ignoring it having ignominiously backfired, there occurred to them a new plan. Rather than abolish amateur radio, they would restrict amateur operation to a wavelength of 200 meters. Now it must be understood that in those days the theory, accepted by erudite professional and simple amateur alike, was that radio waves increased in effectiveness directly in ratio to their length. Waves thousands of meters long were the most superior. Ships, due to limited space for antenna installations, were limited to wavelengths between 450 and 600 meters; in certain especially restricted instances Tune "A" or 120 meters was employed. But the general belief was that wavelengths below 250 meters were essentially worthless for anything but the most limited work. So, said the lawmakers, we will give amateurs this useless wavelength of 200 meters. That will reduce the amateur to oblivion as surely as another way, quoth they; for who will work long in worthless territory?

Yes, it was a pretty scheme. They looked it over from all angles and could find no fault with it. So they incorporated the new idea, along with one or two others, in the revamped Alexander Bill and passed it, on May 7, 1912.

(Continued in next issue of WORLDRADIO.)

Pacific Division Convention

The Santa Cruz County Amateur Radio Club is hosting the 1973 Pacific Division Annual Convention. The Dream Inn at the Santa Cruz Wharf will be the Convention headquarters. The dates for the Convention are the 13th and 14th of October. The pre-registration fee is $12.00 per person before 1 October and $14.00 per person after that. There will be technical sessions, programs for the XYLs and things for the kids to do on the famous Santa Cruz Board Walk. Harry Dannals, President of the ARRL, will be at the Convention as will be one of the ARRL technical men. For further information, contact Jim Marshall, WA6HCL, 1027 Pinehurst Drive, Aptos, California 95003. (Phone: 408-688-4571).


The Newspaper for the Amateur Radio Community

Worldradio/NEWS

Vol. 2 No. 9 July 1973 50¢

220 MHz

Hams Active In Emergency Drill

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An International Newspaper
Second Year of Publication

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information

WORLDRADIO is published monthly by Worldradio Associates. Offices are at 2509 Donner Way, Sacramento, California 95818, USA. Telephone: (916) 456-6725

Subscription rates: $5 per year, $9 for two years, $13 for three years and $50 for life. IRCs, local currency and mint stamps will be accepted from overseas readers.

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

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

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Controlled Circulation postage paid at Sacramento, California.

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Arthur E. Ericson, W1NF, Beverly, MA
Ferris W. Hartman, W6VJN, Oakland, CA
John Rose, K5ZDW, Dallas, Texas
Ivan C. Simpson, W6TET, San Diego, CA
Jack G. Shultz, K4LOL, Bowling Green, KY
N. A. Archibald, Jr., K6NN, Downey, CA
(Continued in next month's issue)

Letters

For some months I have been meaning to write you and tell you how much I enjoy reading Worldradio... I think your editorial on page 31 (June, 1973) was just superb. It was a completely fair and objective assessment of the circumstances that led to the ARRL Board of Directors to pass the now famous Resolution of last January. Your clear analysis is a far cry from some of the nonsense now appearing in another source....My sincere thanks for helping to set the record straight and to focus attention on the true issues facing the future of Amateur Radio... Larry Price, W4DQD, Director-Southwestern Division, ARRL.

I want to compliment you on this new and "original" Amateur Radio publication, which fills a NEED in a wonderfully complete way. Nothing I can think of can do so much to build and strengthen the "image" of our hobby, on which its continuance depends. "Saludos" on a fine job. This HAM NEWSPAPER is one of the greatest things I've seen ! .... Stu Perry, W1BB.

Worldradio/NEWS is one of the really needed items in this ham's world. I'd like to see it expand to twice the pages with news of the hams... Myron Braun, K8IQB (Editor's note: Growth is one of our primary goals).

It is a very FB publication and certainly needed... Phil Sager, WB4FDT

Fine Business editorial on the subject of restrictive regulation. Much enjoy your paper... Vic Clark, W4KFC, Director-Roanoke Division, ARRL.

I thought you would like to know that George Hart, W1NJM, (ARRL Communications Manager) spoke highly of Worldradio/NEWS during the open forum at the recent West Gulf ARRL Convention... Bill Roussel, K5RVF.

Worldradio/NEWS is doing a fine job... Stu Edmonds, WØGW.

Keep up the good work. We need this kind of paper... Ethel Smith DeBardeleben, K4LMB, Editor, AUTO-CALL.

It is a fine magazine and covers a real need...Tex DeBardeleben, W4TE.

* *

We'd like you to write us letters. Lots of them. Letters of intelligence, sobriety, anger, humor, wisdom. We enjoy the "great paper" back-slapping letters (they fuel the fire) but also want letters that speak specifically about what the paper is good for or, for that matter, lousy. Debate our writers. Tell us what we should have covered but didn't. Write an article if you wish. But write - it's your paper, what do you want in it ?

Late Flash

July 12, 1973

Radioteletype stations in Havana and Moscow with spurious emissions every four or five kilohertz continue to cause harmful interference on 20 meters. Every possible diplomatic pressure is being exerted to solve the problem. ARRL Hq. would like all those affected to continue submitting complaints, which are being processed through FCC.

Newsback

FCC

(Continued from page 2)
MCCLUNEY, III) SUSPENSION AND ORDER TO SHOW CAUSE WHY LICENSE FOR AMATEUR RADIO STATION KØECG SHOULD NOT BE REVOKED. On Presiding Judge's own motion, continued the field hearing date from June 4 to August 13, 1973, at a place to be designated in Jacksonville, Fla., by subsequent order (Docket 19562).

* *

May 29, 1973

SAFETY AND SPECIAL ACTIONS

The Commission, by its Safety and Special Radio Services Bureau, took the following action on May 23:

ROBERT L. LAGINESS, DETROIT, MICH., licensee of Amateur radio station WB8CJL. Ordered the license revoked, effective June 25, 1973, for repeated violation of Section 1.89 of the rules by failing to reply to official communications.

The Commission, by its Safety and Special Radio Services Bureau, acknowledged receipt of payment in settlement of monetary forfeitures incurred under Section 510 of the Communications Act, by the following on May 22:

RICHARD J. MOEN, BELLINGHAM, WASH., $100, licensee of Amateur radio station W7VRO.

* *

June 5, 1973

SAFETY AND SPECIAL ACTIONS

The Commission, by its Safety and Special Radio Services Bureau, took the following actions on the dates shown:

May 25 - ROLLAND F. SPOONER, FALLS CHURCH, VIRGINIA, licensee of Amateur radio station WB4NWG. Dismissed proceeding and set aside order of revocation in this proceeding.

The Commission, by its Safety and Special Radio Services Bureau, acknowledged receipt of payment in settlement of monetary forfeitures incurred under Section 510 of the Communications Act of 1934, as amended, by the following:

May 30 - THEODORE D. HALER, WINTER GARDEN, FLORIDA, $25, licensee of Amateur radio station WB4TYQ.

June 6, 1973

ACTION IN DOCKET CASE

CINCINNATI, OHIO, AMATEUR RADIO PROCEEDING, ORAL ARGUMENT SCHEDULED BY REVIEW BOARD. Oral argument has been scheduled by the Review Board for June 28, 1973, at 10:00 a.m., on the exceptions and briefs to the Initial Decision (FCC 72D-61) released September 14, 1972, which proposed denial of the application of Herbert L. Rippe, Cincinnati, Ohio, for Amateur radio station and Extra Class Operator licenses (Docket 19270). Rippe and the Chief, Safety and Special Radio Services Bureau, have each been allowed 20 minutes for argument. Rippe may reserve part of his time for rebuttal. (Action by the Review Board June 5, 1973, by Order.)

* *

June 11, 1973

SAFETY AND SPECIAL ACTIONS

The Commission, by its Safety and Special Radio Services Bureau, took the following action on the date shown:

June 1 - RAIMUND B. CARNE, EUGENE, ORE., licensee of Amateur radio station W7GKB. Ordered to show cause why the license should not be revoked for repeated violation of Section 1.89 of the rules by failure to reply to official communications.

The Commission, by its Safety and Special Radio Services Bureau, acknowledged receipt of payment in settlement of monetary forfeitures incurred under Section 510 of the Communications Act by the following on the date shown:

June 6 - JANIEL R. BEDNARCZYK, CHICAGO, ILL., $100, licensee of Amateur radio station K9HLW.

* *

June 20, 1973

ACTION IN DOCKET CASE

By Administrative Law Judge Byron E. Harrison on the date shown:

JACKSONVILLE, FLA (SAMUEL C. MCCLUNEY, III) SUSPENSION OF AMATEUR RADIO OPERATOR LICENSE KØECG AND ORDER TO SHOW CAUSE WHY IT SHOULD NOT BE REVOKED. Granted Broadcast Bureau's amended motion to move exchange date for McCluney to July 18, 1973, and directed McCluney to mail to the Bureau, copies of all exhibits and a list of witnesses he will have in support of his direct case, on or before July 18, 1973 (Docket 19562) (Action 6/15/73).

* *

June 25, 1973

ACTION IN DOCKET CASE

By Chief Administrative Law Judge Arthur A. Gladstone on June 21:

SAN FRANCISCO, CALIFORNIA (WILLIAM D. HELM) ORDER TO SHOW CAUSE WHY LICENSE FOR AMATEUR RADIO STATION WB6DMF/1 SHOULD NOT BE REVOKED AND SUSPENSION OF LICENSE. Upon petition by Chief, Safety and Special Radio Services Bureau, extended to July 31, 1973, time for filing Proposed Findings of Fact and Conclusions of Law, and to August 14, 1973, time for filing replies (Docket 19705).

* *

June 28, 1973

SAFETY AND SPECIAL ACTION

DENIAL OF REQUEST FOR ASSIGNMENT OF SPECIFIC AMATEUR CALL SIGN AFFIRMED BY SAFETY AND SPECIAL RADIO SERVICES BUREAU. The Georgetown Amateur Radio Club has been refused reconsideration of action of May 3, 1973, denying its request for waiver of Section 97.51 of the Amateur Radio Service rules to permit assignment of a specific amateur call sign, W3GU. James E. Barr, Chief, Safety and Special Radio Services Bureau, affirmed the original denial, which held that the Club's statements did not support a finding that the public interest would be served by a waiver of the call sign provisions of the rules. The Club took issue with that action, asserting that unique and special circumstances were involved. It said that it had been affiliated with Georgetown University for more than five years; it was engaged in substantial public service activities; and the requested call sign would facilitate identification of the club and would generate additional student interest in the club and foster increased interest in the communications and technical aspects of radio. The Club asserted that the rights of any other licensees or applicants would not be affected; a precedent for similar requests would not be set because a grant of the waiver would be limited to narrow factual data under unique and special circumstances; and that Section 97.53(h) provides that call signs unassigned for more than one year are normally available for assignment. Contending that the Bureau Chief's action was the result of a refusal to exercise discretion under delegated authority rather than an action on the merits, the Club claimed that a "refusal to exercise discretion is arbitrary, capricious and not in accord with law". Barr pointed out that waiver requests can be acted upon under delegated authority when there is good cause. In this case, however, he said that public service activities are carried on by many thousands of amateurs. The Club was like many others, on and off university campuses, and all would consider a distinctive two-letter call sign desirable and prestigious. He said that the contention that third party rights are unaffected "is unacceptable" since similar organizations are entitled to similar treatment, and there was nothing in the Club's situation to justify giving it preferential treatment. As for the provision that call signs not under assignment for more than one year are available for assignment, Barr said that Section 97.53(h) merely authorized older unused call signs to be returned to the "hopper" for reassignment in accordance with the rules. (Action by the Chief, Safety and Special Radio Services Bureau, June 25, 1973, by Order.)

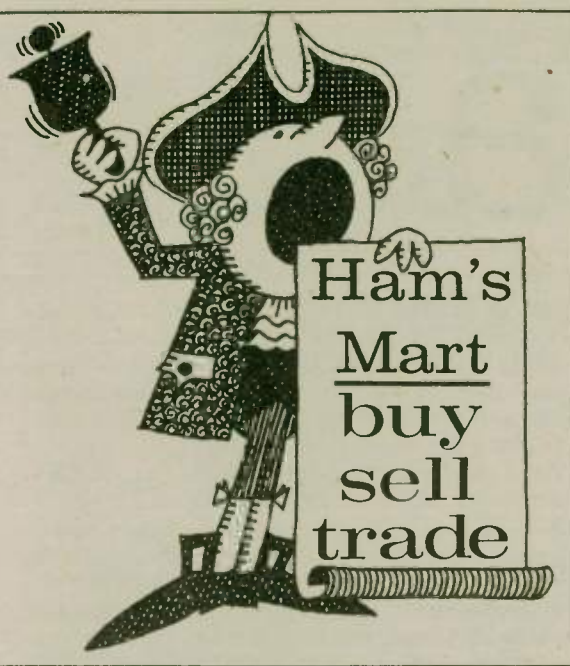
* *

July 6, 1973

ACTION IN DOCKET CASE

By Chief Administrative Law Judge Arthur A. Gladstone on 7/2/73:

Terminated the hearing and certified to the Commission proceedings on orders to show cause why the license for the following station should not be revoked: ALLEN N. RASMUSSEN, MILWAUKEE, WISCONSIN, AMATEUR RADIO STATION WA9MOF.



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

AUTO-CALL keeps up with the latest ham info from Washington, D.C. Subscriptions $3.00 a year, sample copies 25 cents. Address: AUTO-CALL, 2012 Rockingham, McLean, Virginia 22101.

MEDICAL: Any licensed amateur radio operator in the medical or paramedical field should join MARCO (Medical Amateur Radio Council). Contact: Stan Carp, M.D., KIEEG, 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.

We sell MOS Digital electronic clocks. The finest available. Free literature will prove it. 24 hr. GMT or 12 hr. L.E.D. Readouts are used only in our electronic clocks. K5ZDW, 2421 Utica Dr., Dallas, Texas 75227.

FREE-Free-Free--Homebrew power supply for my HW12 if you buy the rig. Have HW12 in fair-to-good operating shape (may need a little re-alignment) with mobile mike included. Asking $68. K8IQB, Howard St., Bellevue, OH 44811.

BALUN COILS - 2 KW-PEP 3 to 52 mc. Save by installing in your own weather protector. 1:1 or 4:1 ratio, $2.95 plus postage. Engineered Products Co., 9130 Yankee St., Miamisburg, Ohio 45342.

DIGITAL Computer Equipment catalog; ICs, Computer Units, photo resist, etc., $.50 (refundable). Postpaid U.S., MNH-Applied Electronics, P O Box 1208, Landover, MD 20785.

Editing a Club Paper? Need some help? Amateur Radio News Service would like to hear from you. For info, write: Rosemary Willis, Sec'y, 9276 Borden Ave., Sun Valley, CA 91352.

For Sale or trade: Duplicates of QST from 1916. CQ from '45. Handbooks from 1930. Books of Radio and Wireless. Want old radio receivers, wireless, etc. List for stamp. Erv Rasmussen, 164 Lowell, Redwood City, CA 94062.

Tired, Aching Feet? Wear comfortable Knapp, Hanover shoes. Write for brochure. Steven Kullmer, Dysart, Iowa 52224.

HAMS-EXPERIMENTERS: Send SASE for list of the lowest prices on electronic goodies of all kinds. Get on our mailing list now! New catalog going to print soon! Aksarben Electronics, 5535 Fremont, Lincoln, NB 68504.

CASH: For your solid state devices, SCR's, transistors, RECT. and diodes, IC's, and electronic or related components. John Loudenback, 5535 Fremont, Lincoln, NB 68504.

HAMFEST! Cape Cod's fabulous Hyannis, Massachusetts home of New England ARRL Convention sponsored by FEMARA September 29 and 30. Giant flea market, seminars, FM, SSTV, NEDXCC, YL trips, banquet, show, dancing, 2 pools, golf, beaches, sailing. Early bird registration: $3. W1ZQQ, 17 Barnes Avenue, East Boston, MA 02128.

SECRETS OF THE SPIRIT WORLD. Only $.40 postpaid from METHODS. Box 1263, Mountain View, CA 94040.

Wanted: Your good used ham gear in trade for new equipment. Featuring Clegg, Regency, Gladding, SBE, Hallicrafters, Ten-Tec, Newtronics, Standard, Cushcraft plus others. Write or phone today for our money-saving deal. JOHNSON ELECTRONICS SALES, Box 332, Griffin, Georgia 30223 (404) 228-3831

CW OPS. RAZOR SHARP 30HZ RECEIVER SELECTIVITY puts QRM out of the picture. Works with any receiver or transceiver, including yours! You paid hundreds of dollars for your transceiver; why not give it the "ultimate" in selectivity? See large ad elsewhere this issue. AUTEK RESEARCH.

GREAT NOSTALGIA ITEM. Two old-time radio shows, "My Friend Irma" and "Our Miss Brooks", on one LP. $6.45 postpaid. Catalog 25 cents. Records and Tapes, Box 724-WR, Redmond, WA 98052.

HEATHKIT AMATEUR EQUIPMENT - 5-band receiver, HR-10-B; crystal calibrator, HRA-10-1; superex headphones, GR-396; mobile speaker, HS-24; code practice oscillator, HD-16 - prime, recently assembled. Cost about $125, asking $75. Many extras. Kirsner, 1 Rose Lane, Yonkers, NY 10705.

Crystals FT243, 7.52 to 8.3 MHz. Will trade for FT243 crystals 2 to 3.75 MHz. Youth Revival Centers, Dexter, Oregon 97431.

CRYSTAL SET-Working replica circa 1916 as advertised Hugo Gernsback's "Electrical Experimenter". Beautifully reproduced. Conversation piece for shack or collection, $20. Wireless Shop, 9130 Yankee St., Miamisburg, Ohio 45342.

Ross and White or Kyokuto Denshi 2 meter FM 10 watt transceiver. Internal tone burst with 4 switch selectable tones. Crystals for 52/52, 76/76, 94/94, 04/64, 16/76, 22/82, 34/94 37/97. See 73 Magazine 4/72. $195. 8 hour battery and charger $25. Heavy duty leather case for radio and battery $15. K6ESC, 20650 Lomita Ave., Saratoga, CA 95070. 408-867-3912.

Make money in your spare time! Wanted: Technicians, Wirers, Solderers. Male or Female. Age no barrier, older people preferred. Many company benefits. Hours and shift can be varied to your needs. Salary based on experience. Factory experience necessary. Contact Aaron Bergman, Chief Engineer, Alvaradio Industries, 2105 Colorado Avenue, Santa Monica, CA 90404 (213) 870-0206. Mention Worldradio.

For Sale. Two SCR-284-A transceivers. Complete mobile and field accessories. 3.8 - 5.8 MHz continuous. $500. or trade. Ace R. Hayes, 6249 Highland, Richmond, CA 94805.

Antique flameproof keys for sale-Type J-7-A, built for U.S. Govt. in 1921-original carton-$12.95 ppd. Walt Jackson, W5ZYA, P. O. Box 19406, Dallas, Texas 75219.

WANTED: USED HALLICRAFTERS HAM GEAR. Seeking inoperative receivers, transmitters, what-have-you. Send description and price to Vern Weiss, WA9VLK-WA4BBO, 719 West Water St., Kankakee, Illinois 60901 or call (815) 939-0036 between 0600-1000 GMT. Interested in both recent and older models.

Wanted: Old radio receivers, wireless gear, msc. parts, etc., Circa 1920, regardless of condition. Joe Horvath, W6GPB, 522 Third St., San Rafael, CA 94901.

Printed circuit boards, for AM/FM radios. IMPORTANT-THESE ARE REJECTS, some with broken resistors, or broken connections. Not worth-while (commercially) to trouble-shoot and repair. Sold strictly AS IS. Has AM/FM loop stick; AM/FM miniature, 2 gang tuning capacitor; transistors; resistors; capacitors;diodes;9 transformers, RF, IF, Osc.; IFs are 455 KC and 10.7 MC. On brown bakelite board, 3-3/4" x 3", 1 1/2" high, with all parts. 1 lb., 10/$7.00; 5/$3.75; each 79 cents. The following PCBs are BRAND NEW, bulk packed, GUARANTEED operable. Made in 1968, for computers, with test and acceptance stamps. On epoxy glass, 4-1/2" x 7-1/2" x 3/8" for GOLD slide-in connectors; 1/2 lb.: #1) has 276.840 crystal; 2 #6818, 1 #6504 and 1 #6742A TIs; 6 #2N3053 and 11 more transistors; diodes;resistors;capacitors, etc. 4/$9.50; ea. $2.50. #2) 1 #2N3055 and 6 #6742 transistors, on heat sinks; 19 more transistors; 1 transformer; 4 Helitrim, miniature pots; diodes;resistors;capacitors;etc. 4/$8.50; each $2.25. #3) 10 transistors;4 Helitrims; diodes;resistors, capacitors;etc. 4/$6.50; each $1.75. #4) 2 Helitrims; 5 transistors; diodes;resistors;capacitors;etc. 4/$4.50; each $1.25.
Made for HALLICRAFTER'S TR-35A, sub-assemblies. ALL BRAND NEW, bulk packed, GUARANTEED operable, BRIDGE rectifier: has 8 #U214 by T.I.; 1N3020 Zener; resistors; capacitors;etc.; on bakelite board 4-1/2" x 1-5/8", 1 lb. 10/$22.50; 5/$9.75; ea. $2.50. Filter for above: has 4 'lytics 40 MFD at 450V tubular AEROVOX; in 2 sets of 2; bridged by 4 resis. 520K; as originally used for output of 600V DC at 500 ma. On board 3 5/8" x 3 7/8" 2 lbs. 10/$19.00; 5/$9.75; ea. $2.00. COMBINATION, both above 4 sets/$16.50; each set $4.25. SIDETONE OSCILLATOR, 2N2672 transistor; resistors;capacitors;miniature transformer; etc. On board 1 1/2"x 2-1/4"; 1/4 lb. 4/$4.75; ea. $1.25. Schematics, for complete unit included in prices.
All prices are NET FOB store, Chicago. All items subject to prior sale. PLEASE - Include sufficient to cover postage and insurance. Any excess remitted, returned in shipment.
New 1973 flyer ready. Included free in all shipments. Others-SELF ADDRESSED STAMPED ENVELOPE REQUIRED.
BC Electronics, % Ben Cohn. Store 5696 N. Ridge Ave., Chicago, IL 60660; hours Wed. 11:00 a.m. to 2:30 p.m.; Sat. 10:00 a.m. to 2:30 p.m. Other times by appointment. MAILING ADDRESS 1249 W. Rosedale Ave., Chicago, IL 60660. Phones: 312 334-4463 and 784-4426.

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