The Worldradio News

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Commission defers action on Class E proposal

March 6, 1975

On June 6, 1973, the Commission adopted a Notice of Inquiry and Notice of Proposed Rule Making in Docket 19759 looking toward the reallocation of the 224-225 MHz band to the Citizens Radio Service for the creation of a new Class E category station.

The band 220-225 MHz is now allocated for the shared use by stations in the Government Radiolocation Service and the Amateur Radio Service. The time for filing original and reply comments in this proceeding expired on October 19, 1973 and November 3, 1973, respectively. By letter dated December 27, 1974, the Acting Director of the Office of Telecommunications Policy urged, "that every consideration be given to expeditious action on this matter by the Commission."

The Commission on July 23, 1974, adopted a Notice of Proposed Rule Making in Docket 20120, which proposed to more than double the radio spectrum space allocated to Class D stations in the Citizens Radio Service and reregulate some of the operating rules applicable to that class of station. The time for filing original and reply comments in that proceeding is January 30, 1975 and March 14, 1975, respectively.

On December 4, 1974, the Commission adopted a Notice of Proposed Rule Making in Docket 20282 which proposed the restructuring of the various classes of amateur radio operator licenses to, among other things, create a new Communicator Class of license which would not require a code examination and would have operating privileges in the 220-225 MHz band. The time for filing original and reply comments in that proceeding is June 16, 1975 and July 16, 1975, respectively.

The Commission believes that these three rule making proceedings (Dockets 19759, 20120 and 20282) all involve related issues. Principal among these are the amount and location of spectrum space that should be allocated to meet the personal and business radio communication needs of the general public. In addition, we believe further discussions with Canada are needed relative to Class E frequencies along our border. Accordingly, we will defer action on Docket 19759 until later in 1975 to permit us to fully develop the requirements and alternative solutions we feel are needed. We are fully aware of the importance of the issues in Docket 19759 and it is our firm intention to conclude this proceeding as promptly as possible.

It should also be noted that the Commission on February 5, 1975 adopted a Notice of Proposed Rule Making in Docket 20351 proposing a requirement that most stations licensed in the Safety and Special Radio Services be fitted with an Automatic Transmitter Identification

(please turn to page 3)

Tower case

Ray Benny, WA6LBP, took his tower case to the Ventura (Calif.) City Council meeting March 17. The purpose was to get a ruling from the city council on how two ordinances applied to Amateur Radio towers.

It was decided that "wireless masts" referred to amateur towers in one ordinance and an ordinance requiring conditional use permits for radio and television transmission towers referred to commercial, not amateur, towers. The result was that Ray could get a building permit to erect a 62-foot tower and a conditional use permit was not required.

However, this is not the end! The council might write an ordinance requiring a conditional use permit for transmitter towers in the future. Ray Benny did not go through all of this hassle and expense just for himself. His job could move him out of this area, wasting all of the trouble he went through. He said he would be willing to put up a shorter tower not requiring a permit if he ran into too many legal problems, but he kept up the fight.

Ray did this for all amateurs who have towers or ever plan to have towers. The battle has cost Ray about $350 in attorney fees and civil engineering fees. He has received only $35 in donations so far. Let's all chip in. Send a check to Ray Benny, 1507 Buena Vista St., Ventura CA 93001. Ray has come up with a suggestion for a legal defense fund for amateurs. It could possibly be administered by TRICARS. Ray said that any contributions to him over $250 would go to such a fund.

Amateurs help NYC police

Picture shows Mike Young (WB2EIL) as he is in the process of interfacing a touch tone pad into a CMC FM transceiver tuned to 2m FM. Left to right: William Higgins (WA2RXQ), Michael Young (WB2EIL), Andy Merendini (WB2EIR), and Jim Passione (WA2ECP).

On Thursday morning, 27 February, 1975, a five-alarm fire in a 12 story switching center of the New York Telephone Company, located at 13th Street and Second Avenue in New York City, interrupted service to 170,000 telephones. Among those telephones taken out of service were those used by the 7th, 9th and 13th Precincts of the New York City Police Department. The 9th Pct. reportedly has the highest crime rate in the city.

By 7:00 p.m. that evening, as telephone service had not been restored to the three affected police stations, two members of Repeater Station WR2ABK, Michael Young, WB2EIL, and William Higgins, WA2RXQ, began to formulate plans with Andy Merendini, WB2EIR, a patrolman assigned to the 7th Pct., to install equipment in the affected police stations, thereby providing them with access to the auto patch facilities of WR2ABK.

By 10:30 p.m. a KARR DJ 30 had been installed and was operational at the 7th Pct. with full auto patch features. This was the first working telephone service inside the building since the fire some 15 hours earlier. Headquarters, the communication center and hospitals, along with other selected parties, were given the Repeater's Telephone Number. Within minutes there began a steady stream of both incoming as well as outgoing telephone calls. In the first 24 hours of service approximately 16 hours of conversation were recorded.

The New York Telephone Company had assigned a mobile telephone unit for police to use outside the building (in the parking lot across the street), but it did not give priority service to police messages until the following day. It was not only necessary for police officers to leave the building to place calls, but they were obligated to wait until a channel was free, and indeed, they shared time with the public subscribers of mobile telephone service.

Stuart Siet, WA2JNF, and Jim Passione, WA2ECP, also members of the Association, joined the group at approximately 12:00 p.m. with a 4 element beam and some much needed RG-8/U coax.

(please turn to page 11)

Additional amateur calls made available

The Commission has amended its rules to make additional call signs available to stations in the Amateur radio service. The action will make all amateur format call signs in those series internationally allocated to the U.S. available for assignment to amateur stations.

Amateur call signs now are assigned to stations in the Amateur Radio Service in such a way that certain characters in the call sign indicate the general geographic area that the station is operating in.

The Commission said to maintain the FCC's flexibility in assignment of call signs to these stations in this manner, it was desirable to make additional call sign blocks available.

The FCC said the Department of Defense had no objection to the Commission proceeding to make amateur format call signs commencing with the letters N and AA through AL available in its rules. Also the International Radio Regulations permit the assignment of call signs in the format of letter-digit-letter and letter-letter-digit-letter, the Commission explained.

The additional call sign series introduced by these rule changes are:

K1A through KØZ
N1A through NØZ
N1AA through NØZZ
N1AAA through NØZZZ
W1A through WØZ
AA1A through ALØZ
AA1AA through ALØZZ
AA1AAA through ALØZZZ
KA1A through KZØZ
NA1A through NZØZ
NA1AA through NZØZZ
NA1AAA through NZØZZZ
WA1A through WZØZ

The FCC said it was changing the rules to make available additional call signs consistent with the call sign formats given in the international radio regulation.

The action, which amends Parts and 2 and 97 of the rules, becomes effective April 25.

Action by the Commission March 11, 1975, by Order. Commissioners Wiley (Chairman), Lee, Reid, Hooks, Quello, Washburn and Robinson.

Field Day

Field Day 1975, 28 and 29 June, will include a major change.

This change, raising the value of a cw QSO to two points, has been recommended by the ARRL Contest Advisory Committee and is in line with a recent Board motion urging the CAC to study ways of encouraging continued use of a wide variety of modes in the Field Day. The modification is being instituted on a trial basis this year, to be adopted permanently if the change appears to be serving its intended purpose of increasing FD cw activity. Full rules will appear in the May issue of QST.

Scholarship

The Foundation for Amateur Radio, Inc., a non-profit organization with its headquarters in Washington, D.C., announces its intent to award three scholarships for the academic year 1975-76.

All amateurs, wherever resident in the U.S. and holding an FCC license of at least General class can compete for one or more of the awards if they plan a full-time course of studies beyond high school.

The John W. Gore Scholarship pays $750. Applicants must intend to pursue a career in electronics or a related science and have completed at least one year in an accredited college or university toward a baccalaureate or higher degree. Preference will be given to residents of the District of Columbia, Maryland and Northern Virginia.

The Richard G. Chichester Scholarship also pays $750. Applicants must be members of the ARRL and be sponsored by an ARRL-affiliated club. There is no restriction on the course of study, but applicants must be enrolled in or have been accepted by an accredited university or college and intend to seek a baccalaureate degree. Preference will be given to residents of Ohio, Kentucky, Indiana, Illinois, the District of Columbia, Maryland and Northern Virginia.

The Edwin S. Van Deusen Scholarship pays $250. Applicants must have been accepted or enrolled in an accredited two-year technical school and intend to seek an Associate degree in a science-related area. Area preference is the same as the Gore Scholarship.

Application forms can be requested from the Chairman, Scholarship Committee, H.F. de Court, W3WZN, 8101 Hampden Lane, Bethesda, Maryland 20014. Requests must be postmarked prior to June 1, 1975.

The Foundation is devoted exclusively to promoting the interest of amateur radio and to scientific, literary and educational pursuits that advance the purposes of Amateur Radio.

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Olympics 1976

Following the tradition of amateur radio participation at previous Olympic Games—RASO (Radio Amateurs Serving the Olympics—Radio Amateurs servant l'Olympiade) was recently constituted in Montreal, principal site of the summer 1976 Olympic Games.

Endorsed by the International Amateur Radio Union and working under the auspices of COJO, the official organizing committee for the 1976 Olympic Games, RASO has set for itself the following tasks:

(1) to help publicize the Montreal Olympic Games of 1976 amongst the fraternity of Amateur Radio operators locally, nationally and internationally;

(2) to create, through the medium of Amateur Radio, a climate of interest and goodwill toward this event;

(3) to provide during the Olympics and within the framework of Amateur Radio capability, any possible services of good fellowship and good citizenship;

(4) to enhance the concept of service in Amateur Radio through its facilities of non-commercial international traffic handling;

(5) to stand ready, pursuant to enabling regulation, as a back-up communications system at the disposal of duly constituted government authorities.

In working towards the achievement of these objectives, RASO intends to call upon Canadian Amateurs for their active participation through the co-operation of all amateur radio clubs or groups.

With your anticipated help a great opportunity is offered to further the cause of Amateur Radio. Let us not fail!

Jean Treskin, VE2BCT

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ARRL

The second 1975 ARRL Board Meeting will be held on May 15.

The timing is due to decision making for Docket 20282, but a full range of topics may be discussed. The members of ARRL elect the Board which has the overall responsibility for managing the affairs of the League. This democratic process is effective only to the extent that the membership participates.

Now is the time for members and affiliated clubs to communicate with their division directors at the addresses shown on page 8 of any 1975 QST.

AMSAT NETS

In order to keep the satellite users in touch with one another and to provide information to newcomers, the following AMSAT nets meet regularly:

North American East Coast 75 Meter Net
Monday 8:00 p.m. EST (0100Z Tues)
3850 kHz LSB
Net Control W3ZM, W3TMZ or K2GUG

North American West coast 75 Meter Net
Mondays 8:00 p.m. PST (0400Z Tues)
3850 kHz LSB
Net Control W6OAL or W6EJJ
Note that East Coast and West Coast Nets are on the same frequency, so stations in between should be able to work both.

Internationl 20 Meter Net
Sundays 1800Z
14,280 kHz USB
Net Control W3ZM, W3TMZ or others

International 15 Meter Net
Sundays 1900Z
21,280 kHz USB
Net Control W3ZM, W3TMZ

Western Europe Net
Saturdays 1000Z, Sundays 1015Z
14280 kHz LSB
Net Control G3IOR

JA Net
Mondays 1300Z
3560 kHZ LSB
Net Control JA1ANG

Southeast Asia Net
Thursdays 1300Z
14,320 kHz USB
Net Control JA1ANG or others

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Net Control ZL1WB

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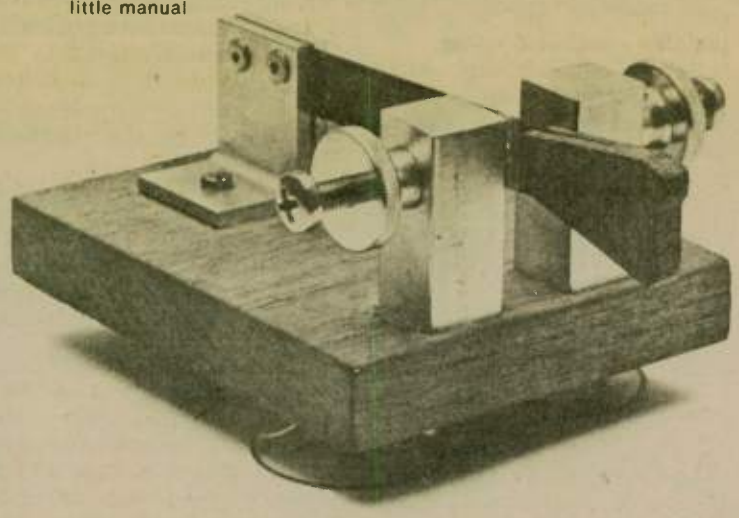

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Send your contributions to John G. Freeland, W8GSN, c/o West Virginia School for the Blind, Romney, WV 26757.

Worldradio

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

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Advertisements in **Worldradio** reach the most active, interested and involved amateur radio operators.

Controlled circulation postage paid at Sacramento, CA. April 1975 issue.

Amateurs permitted voluntary use of special call signs during 1976 Bicentennial year

March 27, 1975

In response to many requests, the Federal Communications Commission has authorized the voluntary use of special call signs by amateur radio operators during the 1976 Bicentennial year representing the 200th anniversary of the nation's independence.

Because the potential number of licensees desiring to utilize special calls during this event could be quite large, the plan developed by the commission does not require prior approval from the commission for any amateur to use the special calls. The Bicentennial call sign plan is completely voluntary and requires only the exchange of existing prefixes by amateur stations within the contiguous United States with the specified prefixes AA through AL in accordance with the date below.

Stations licensed by the Commission which are located outside the contiguous U.S. will exchange either their existing call sign prefixes or prefixes plus the digit, also in accordance with the data shown below. All existing suffixes will remain unchanged.

Amateurs desiring to use these special call signs may do so interchangeably with their present call signs during the period beginning 0500 GMT Jan. 1, 1976 and ending 0500 GMT Jan. 1, 1977. Except as outlined herein, prefixes in the AA-AL block will not be assigned for special event or other amateur use until further notice.

Accordingly, sections 97.51 and 97.53 of the commission's rules are waived to the extent necessary permit the use of special call signs as prescribed above.

Call sign prefixes within contiguous U.S.: (WA/AA), (WB/AB), (W/AC), (K/AD), (WD/AE), (WR/AF), (WN/AK). **Call sign prefixes outside contiguous U.S.:** (KB6 - Baker, Canton, Enderbury, Howaland/AG2), (KC4AA-ZZ - Navassa/AL4), (KG6A-H - Guam/AG6), (KH6 - Hawaii/AH6), (KJ6 - Johnston/AJ7), (KL7 - Alaska/AL7), (KM6 - Midway/AH7), (KP4 - Puerto Rico/AJ4), (KP6 - Palmyra, Jarvis/AIØ), (KS4 - Serrana, Roncador/AH4), (KS6 - Samoa/AH3), (KV4 - Virgin Islands/AJ3), (KW6 - Wake/AG7).

Special Novice call sign prefixes outside contiguous U.S.: WB6 - Baker, etc./AG3), (WG6 - Guam/AG5), WH6 - Hawaii/AH1), (WJ6 - Johnston/AJ1), (WL7 - Alaska/AL1), (WM6 - Midway/AH2), (WP4 - Puerto Rico/AJ8), (WS6 - Samoa/AH5), (WV4 - Virgin Islands/AJ2), (WW6 - Wake/AG1).

Amateurs try to save a life

Sister Mary, WA5VBM

On 8 March 1975, Father Ed Schmidt, a Jesuit priest in Lima Peru, received a phone call from a surgeon at the Military Hospital in Lima asking his assistance in procuring a piece of surgical equipment needed in an emergency brain operation . . . a Mishler-Puden double-lumen ventricular catheter. Father Ed holds operators' licenses in Peru (OA4SS) and the United States (K9IBT). He immediately made the request known on the Saturday afternoon "LIMA NET" and the wheels began to turn.

Three catheters were located in a matter of minutes in the United States. One in Oakland, California was located by Bill Deininger operating from the Oakland Red Cross Station, W6OT. Another catheter was located in San Diego, Calif. by Regis Rosner, WB6NPT. A third catheter was located in North Miami, Florida, by Sol Katz, WB4EZZ, who is a pharmacist at Paul's Drugs, Inc., and has an inside track on this type of equipment.

By mid-afternoon, the patient, a 35-year-old mother of four children, had gone into a coma and it was decided that the quickest way to get the equipment to Lima was from Miami. So, while Sol, WB4EZZ, had his phone tied up making arrangements with Parkway General Hospital in North Miami for release of the catheter, hiring a courier service to take it to the airport for a 2:30 a.m. Lima-bound commercial airliner, and instructing the pilot to see that it reached the awaiting military courier in Lima . . . contact was maintained with the surgeon in Peru by Carl Mowrey, K4JTT, who is a Pan American Airlines employee in Miami. (What a help!!!)

But . . . at 7:15 p.m., just 4 hours after this drama began . . . time ran out. The patient went into an irreversible decline. So all efforts to procure the equipment were terminated; not, however, without the feeling that Amateur Radio had done all it could do. The patient expired at 11:30 p.m., 8 March.

Emergency

On Sunday at 2215 hours, 2 March 1975, Jim Martin, WA4WFR, called Bob Voss, WB4WVC, on the 146.16/.76 repeater and requested assistance in providing communications for a search that was being organized to look for a missing man in Campbell County, VA. The man, in his mid-30's, had gone hunting and had not been seen since. The area in which he had gone hunting was rugged Virginia Mountain Territory off Rt. 460 East.

All of the area rescue squads had been alerted. George Rose, W4GCE, was immediately notified by WB4WVC and activity was switched to 146.94. A net was organized to get volunteers to provide coordinated communications to tie the various rescue squads together as they had equipment on different frequencies, and did not have much portable equipment either.

Several Lynchburg AREC members bundled up in the 25 degree windy weather and appeared at the search command post at about 2330 hours. About 300 searchers, some groups with dogs, were dispersed and an area search was conducted. After several hours most of the searchers and the amateurs went home. At about 3 a.m. the man was found in good health in a small cover where he had started a fire to keep warm while waiting out the night.

Other amateurs who participated in the search: Ernest White, K4AAB; Bill La Fay, WB4YAY; Bob Martin, K4LKQ; and Frank Gillam, K4TD.

LARC Bulletin

Assistance

By Val Hanney, WA7UZU

I was tuning across the 20 meter band, on 14.314 MHz, and I heard George Barker, K7SWX. He sounded very excited and distressed as he gave a call for help.

Several amateurs were on frequency and apparently had been for quite some time, as Taft Nicholson, W5ANB, in Alamagordo, New Mexico was attempting to tell George that his parents were on their way to find him. Conditions between George and the other stations were poor at that time, but I could copy George Q5. I broke the frequency and asked if I could be of help in relaying the information to George.

Taft responded and asked if I would talk to George and get his exact location and physical condition. George informed me that he was one to three miles east of Scottsdale Road north of Phoenix, out of gasoline and very cold. This information I relayed back to Taft. Taft then relayed to Bob Hughes, WA6UJF, in New Westminster, who in turn relayed the information to the California Highway Patrol.

The most direct and fastest means of rescuing George seemed to me to be to contact the Arizona Highway Patrol. Therefore, I patched George into the Highway Patrol office in Phoenix, they took all the information about him and his location and acted from there.

A Phoenix amateur, Daniel Rockrich, W7UIT, and a Mesa amateur, Stephen Beno, W7JHB. came on frequency at this time (about 0450 GMT) and moved George off to 75 meters. The battery on his car went bad so George never made it to 75.

This morning at 8 a.m. I telephoned George's home in Cave Creek (north of Phoenix) to find out about him. He had arrived home 15 minutes prior to my call. He was well, but tired and glad he had his radio with him the night before. He expressed his appreciation to all who had helped him.

This is the first I have been involved in using my hobby in an emergency situation and it gave me a great feeling of personal satisfaction to know I was able to help a person in trouble.

Others who were on the frequency that I am aware of were Allan WØUOD in Beloit, Kansas, and KØZOD. These two men helped a great deal with relay work and keeping the frequency open for communications to George.

So, that is my story. It takes much less time to tell it than was actually involved but it was very worthwhile to me to spend the time in behalf of George.

Class E

(continued from page 1)

System (ATIS). It may well be, depending on the outcome of that proceeding, that the intention of any new service of the potential size and regulatory complexity of the proposed Class E service will need to incorporate ATIS from its inception.

Action by the Commission March 6, 1975. Commissioners Wiley (Chairman), Lee, Reid, Hooks, Quello, Washburn and Robinson.

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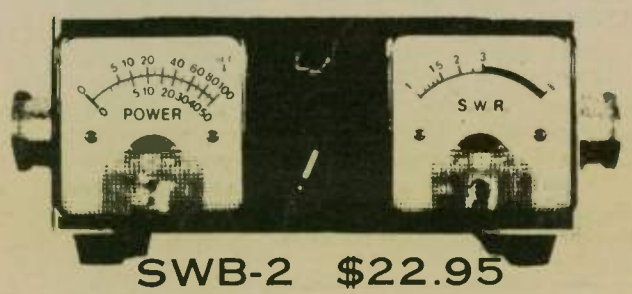

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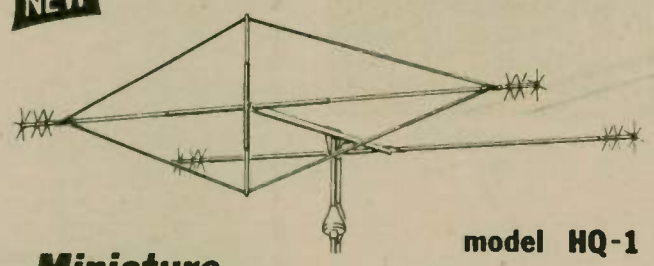

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J.A. "Doc" Gmelin, W6ZRJ
Director, Pacific Division, ARRL

irst in a series

Not long ago, while visiting a iend's radio shack, another isiting amateur asked how I was ng to vote in the "division ection." Since the next election r the direction in the Pacific ivision was a year off I was mewhat perplexed by this uestion.

Further discussion informed e that the question was in gard to an SCM election then in rogress. The mistake made was e amateur thought the Section ommunications Manager, or CM, is a division post and in ct he called the election the Pacific Division SCM election."

Since the election was in nother section than the one in hich I reside, I wouldn't be oting in the election. The mateur who asked the question imply did not know the differ-nce between an ARRL section nd a division.

This incident brought home to e the fact that many amateurs nd members of the League don't now the basic structure and rganization of their own national mateur radio society, the Ameri-an Radio Relay League. Often istakes are made which lead to misunderstandings of the ARRL.

This is the first in a series of articles on the League and its structure. I'll outline this struc-ure and explain the workings of the League and its various offices and appointments, and discuss how members may find a place to be a greater part of the League family.

To best understand the League, one should first study at least a brief outline of the history of how the League developed from a small radio traffic organization to a national society representing over one hundred thousand members.

The early history of the League is well documented in two publications available from the ARRL: **Two Hundred Meters and Down** by Clinton DeSoto, and **Fifty Years of the ARRL**.

Most amateurs are familiar with the story of how Hiram Percy Maxim started the League as a project of the Radio Club of Hartford to set up a system of relay stations to pass messages farther than the limited range of early spark transmitters. That was in 1914. Few amateurs know of the development of the ARRL from these early beginnings to the complex organization it is today.

In the early days of the League the organizational leadership was made up of Maxim and Clarence Tuska. Tuska was the first editor of **QST**. Membership in the League was by station appointment, the only appointment being relay station. One had to compete for these early appointments at the start. Standards of operation were high.

Just before the United States entered World War I the ARRL set up a more formal organization with the adoption of a constitution with a board of directors and an election of officers. The directors were just members-at-large and did not represent any particular area such as the present divisions. At the time of the first constitution six divisions were established, but these were for the organization of the traffic system and trunk lines, not for the election of directors.

In charge of the divisions were Division Managers, the counterpart of today's SCM. The original six divisions were Atlantic, East Gulf, West Gulf, Central, Rocky Mountain and Pacific. Some of the names of these sections carry over into day's divisions which are set up for areas of jurisdiction for League Directors.

With the entry of the United States into the First World War all operational activity of the League stopped and for all practical purposes the ARRL ceased to function, although some help was given in finding operators to serve in the armed forces.

In 1919 the original Board of Directors met and reorganized under a new constitution with the same offices except for the addition of the office of Traffic Manager, the forerunner of the present Communications Manager. A new salaried General Manager, K.B. Warner, took over the routine affairs of the League and the publication of **QST**.

In January, 1920, Canadian amateurs were brought into the League and a Canadian Director was elected to the Board. During this period the number of divisions started to grow, with larger divisions splitting as more amateurs became involved with the activities of the League. Most often one of the two divisions resulting from these splits retained the name of the original division.

Through the early 1920's the League continued with the same basic organizational structure. In 1923 the Board of Directors brought democracy to the League, in effect, by voting itself out of existence.

Up until that time the Board had been self-perpetuating from the original group which had organized the League before World War I. When a director resigned he was replaced through a selection by the remaining directors.

In 1923 the Directors, who met four times per year, instructed General Manager Warner to draw up a new constitution with elected directors selected on the basis of division representation. This was the first time that every area of the country would be represented on as equal a basis as possible.

The divisions still retained Division Managers for a time, under the direction of the Traffic Manager. In Canada there were five Divisions organized for traffic operation under the Canadian General Manager. The Canadian GM was a member of the Board of Directors of the ARRL.

Division splits continued for several years as the League grew. Examples are the Midwest Division which split from Central, Hudson which split from Atlantic, and Southwestern and Northwestern which split from the large Pacific Division. These organizational changes came about due, in part, to traffic structure changes, and splits were to continue until shortly after the Second World War.

At present the day-to-day affairs of the League are run by Headquarters with policy established by the elected Directors representing the 16 divisions of the League. The Directors elect officers and hire a General Manager to oversee the operation of Headquarters. The 16 Directors are elected in biennial elections.

The Divisions have changed purpose and are no longer directly involved with traffic operation. Such operational activity is now handled within 74 sections under the Communications Department. The Communications Manager is in charge of the overall operation and organizational activities within the sections. The Communications Manager is hired by the General Manager as one of the members of the Headquarters Staff. The sections are not under the direct control or direction of the directors.

The Director and Vice Director of each Division are the only elected officials at the Division level. The Director may appoint a number of Assistant Directors and Public Relations Assistants. These appointed officials do not have authority over any section level operation.

The Section Communications Managers are elected for two year terms and are the only elected officials at the section level. The SCM may appoint an Assistant SCM, A Section Emergency Coordinator, and Emergency Coordinators. These are section level League Officials. The SCM also makes station appointments such as Official Relay Station, Official Phone Station, Official VHF Station, Official Bulletin Station and Official Observer. The functions of these appointees and the workings of the section will be discussed in a later article.

To complete the overview of the League's structure we must include the Headquarters, often thought to be no more than a publishing house. In part this is true since one of the major functions of the Headquarters is to communicate with the members. This is often done through various publications.

The major channel of communication, other than by radio through W1AW, is the League's official organ, **QST**. This magazine, published since 1914 and a part of the benefits of membership, is more than a technical journal. It is the publication of the League's activities and operational happenings.

At first the purpose of **QST** was to further the traffic organization for the relay system, which was the original goal of the ARRL. But included in the journal were helpful hints and information on the technical aspects of Amateur Radio and the building of radio equipment. This grew to be a major part of **QST**, since to be involved with the operation of a radio station one must first have radio equipment.

As newer modes of radio developed and new operating activities were organized, these also became a part of the magazines. Thus, our official journal must be all things to all amatuers, both operational and technical.

In reality, all departments of the Headquarters are part of the editorial staff of **QST**, since all make use of the official journal to communicate happenings in a particular area of interest to the membership.

There are a number of different departments at Headquarters. The overall operation and membership affairs are handled by the Secretarial Department, which is directly under the General Manager. Operational activities are a part of the Communications Department, as are affiliated clubs and nets, all under the direction of the Communications Manager. In the same Department the League maintains an official traffic organization, the National Traffic System. Also in this Department is the Amateur Radio Emergency Corps which, together with the traffic organizations and RACES coordination, make up the Amateur Radio Public Service Corp. These areas will be discussed in more detail in a later article, as will areas such as DX, contests, station appointments and available club programs.

While the Technical Department is directly involved with the publishing of technical articles in **QST** and the production of technical publications such as the **ARRL Handbook**, the members of this Department are also involved with the construction of electronic and radio equipment and with experimentation in the laboratory. This Department, under the direction of the Technical Editor, selects technical articles submitted by members for publication in **QST**, as well as writing technical articles for the magazine resulting from the work by the staff in the laboratory.

The actual composing of **QST** and other technical and operational publications from the League is done in a separate production department. The

(*please turn to page 19*)

A W6 reflects on his trip to Europe

by J.S. Pedersen, WA6BEX

During the month of July I spent 27 days in Europe, my time equally divided between working as WA6BEX/DL and as OZ5HX.

Not previously having operated outside the U.S. it was all new and very fascinating. Also it was a welcome change from being a "dime-a-dozen" W6, but more about that later.

The "official" reason for the trip was "that it was about time we visited relatives again," although my XYL was extremely skeptical of that being the truth when I started weighing the FT-101, 72 feet of RG-58/U, dipole, repair kits, logs, microphone, etc. and she discovered strange foreign envelopes (containing licenses) in the mail. We reached a low point in our marital relationship when she found out that we would practically have to "streak" through Europe, in order not to surpass our airline luggage allowance of 44 pounds each.

A compromise was reached at 42 pounds of radio gear and we took off from Los Angeles International Airport with the rig, peripheral equipment and a 15-meter dipole with a 20-meter "outrigger."

As soon as I was set up for operations in Germany, the fuse in the rig blew the first time I plugged it in, for reasons still unknown. But after I, with prayers and shaking hands, had replaced the fuse, the familiar sounds of QSOs in progress, tuner-uppers and QRM flowed like music through the room. Thus ended the only operating problem I had during my trip. The dipole had already been hung up between two houses and I was ready for the world.

The following are some reflections upon my 27 days as a European amateur:

To this date I haven't worked DXCC from W6 land, but from Bavaria I worked 24 countries in two days (and heard as many more), spending no more than four or five hours per day on the air, and this points out one fundamental difference and disadvantage number one of being a U.S. Western or Midwestern amateur versus a European one as follows:

If you live in the Western or Midwestern area of the United States and make 24 contacts within 1,000 miles on 15 or 20 meters (which about sums up the prevailing propagation conditions these days) you can hope for no more than four "countries" (W, VE, KL7 and XE), whereas these same QSOs could have yielded up to six times as many countries in Europe, due to its much smaller geographical size.

At the same time your contacts there give you a much higher diversification of people, cultures, languages, social systems, equipment and general attitudes. If you make a thousand mile circle on a map of Europe, centered on Germany, you will find at least 54 ARRL countries within the circle—and I may have missed a few. But then again I am not sure I ever understood why the USSR can count twenty ARRL countries within its borders. My point here is that it would appear far easier for a European to complete his DXCC than for many of his U.S. counterparts.

For years I have lived under the impression that we Ws run high power and the Europeans all run about a hundred watts or so. The alleged QRM from these high-powered U.S. stations is supposedly the reason that American amateurs, on phone, have to do without 100 to 150 KHz on 15 and 20 meters, because the poor, underpowered Europeans (and others) can't get through our QRM.

If that situation once existed, I can from firsthand observations report that it does not correspond to the present-day facts as I heard them in QSOs on the continent. I was told by several amateurs over there that more than half of the European amateurs own and use linear amplifiers. Also, several countries now have the same 1 KW limit as applies in the states, and a lot of operators use it to the hilt—if not beyond.

I noted especially that many Italians and Russians come on like a ton of bricks, when one tenth the power would have amply sufficed. Several told me, "How do you ever expect to work DX without an afterburner?" I find this statement most interesting and hope earnestly that our U.S. delegation to the 1979 World Allocation Conference takes a strong stand on our regaining the 100 to 150 phone KHz we presently don't have on 15 and 20 for at least three reasons:

(1) There doesn't seem to be much difference in the power levels used here and in Europe. If the counter argument is that there are many other countries, e.g. in Africa and Asia, running low power, wouldn't that call for the conclusion that Europeans should be equally as restricted as American amateurs with respect to frequency spectrum? They will still be only half as crowded as we are here, since they have only half the number of amateurs we have.

(2) One half of the world's amateurs are Ws, who in my opinion are just as entitled to the "Frequency Space Resource" as the rest of the world, without even mentioning what the American amateur, his ingenuity, organization and published results of his experimentation over the last 50 years, have contributed to world hamdom in general. Why should we take a back seat to all other nations, being the only nation in the world discriminated against in this manner? Replies anyone?

(3) Even if the above two arguments are rejected (although I don't see how) propagation is only intermittently open to the rest of the world from any given place on earth, and thus the U.S. QRM argument deserves to be severely discounted. You could possibly even argue that there would be less QRM if our frequencies were expanded since U.S. stations would not have to bunch up inside the present allocation limits.

But all is not black for us Ws. For one thing the price of equipment in Europe is often double the price of what it is here. Very often we grumble about the price of our equipment. How would you like to have paid twice as much for that rig you just bought often on a smaller average income of the typical European?

The rigs in Europe seem to be mostly of Japanese manufacture, Heathkit or homebrew—especially in Eastern Europe where it often is impossible to obtain any finished "appliance." Much to my surprise I was told by Rumanian amateurs that quite a bit of Heathkit equipment is in use in that country.

Also, there is no question that the services available through our ARRL far surpasses anything any European organization can do individually for its members or amateurs around the world.

We also should not complain about the ol' FCC, at least in two respects where many Europeans fare considerably worse, namely the cost of your operating license and the extent to which the FCC will let you continue operating if you cause TVI or BCI if it has been established that the interference problem is a result of a receiver problem at the QTH of the complaining party.

But first the cost of the license. Here in the U.S. we pay $4 for the privilege of operating for five years. That works out to 80 cents per year. In Denmark, you pay the equivalent of $6.65 per year, which works out to more than 8½ times the cost of operating here in the States, and Denmark is fairly typical of the license cost structure in Europe, so let's count our blessings!

In many countries, the Post and Telegraph Branch of the government (which is usually the licensing body) only tolerates the existence of radio amateurs. In Denmark, for example, the radio amateur who causes TVI or BCI to local Danish TV or broadcast stations is by law always at fault for causing the interference, regardless of the condition of the receiving equipment being interfered with. In other words, if you have a neighbor who listens to his radio 18 hours a day and you come through his receiver, he can get you off the air, no matter that you are adequately shielding your equipment, use a low pass filter, tune up carefully, don't transmit harmonics, etc. The Danish rules further state that if you interfere with someone's listening to other than Danish broadcasts, you, the amateur, have the obligation to fix your neighbor's receiver—at your

(*please turn to page 19*)

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Field Day 1975

by Alex "Red" Coulter, WB6ZWG

As the calendar erodes toward the month of June our thoughts turn to the annual event that inspires amateurs everywhere to head for the hills and participate in the biggest operating contest of the year, Field Day.

For the benefit of the newcomers to Amateur Radio, and perhaps some of the oldtimers who have never involved themselves, we will attempt to clarify what Field Day is all about.

Field Day was created by the ARRL and the first annual Field Day was held in June of 1933. The general consensus seems to be that Field Day was originated as an emergency exercise. The truth of the matter is that there was no mention of emergency preparedness or public service in that original announcement. The real object of the first Field Day was to test the operation of portable transmitters and receivers afield, using a power source other than commercial service and offer amateurs an opportunity to get out in the fine spring weather.

Although each year offers changes in the operating rules, Field Day is about the same today as it was that weekend in June of 1935. The fact is, the majority of those who participate in Field Day, do so either for the glory of winning a contest or just for the enjoyment of a group campout. The success of Field Day depends largely on group effort, which is also the prime ingredient in the effectiveness of emergency preparedness.

"Let's not kid ourselves!" In a real emergency you don't look for a remote campsite on a tall mountain to set up an effective temporary emergency operation. Hauling power generators to some remote site and erecting fancy 100-foot antennas to work great distances on 40, 20 or 15 meters, is commonplace on Field Day, but is rapidly becoming obsolete as an emergency preparedness venture. The advent of the VHF FM repeater and the handi-talkie portable or cigar box sized mobile 2 meter rig is rapidly revolutionizing the amateur's emergency potential. In a real emergency, instead of a remote mountain site, you would most likely operate from an established station at the local Red Cross or other local emergency headquarters or from mobiles as needed.

I don't mean to imply that Field Day has no value as an emergency preparedness exercise quite the contrary . . . the group effort, the long operating hours, band coordination, logging and rotating the operators is just the sort of training a good emergency team needs. To try and tell you what Field Day is all about, I would have to say it's about many things, one or more of which is bound to appeal to most any active radio amateur.

Field Day this year will be the weekend of June 28 and 29. The operating starts at 1800 GMT Saturday and ends 2100 GMT Sunday.

If you're new to the game, and the idea of Field Day sounds attractive, your local radio club will welcome you to join with them. As always, this year's Field Day is in the interest of emergency preparedness and keep this in mind when you're out there sweating over a hot rig, getting eaten up by leachy-flies, going without sleep, cramped from pounding away at that key or hoarse from yelling into a microphone. Despite the generator problems, mosquitoes, dust or Murphy . . . nothing can compare with the tantalizing taste torment of steak, taters, coffee and other vittles cooked camp-style in the great outdoors.

I urge each of you to be a part of the Field Day activities. The contest rivalry, camaraderie, camping out and the challenges to the amateurs ingenuity, promise to make Field Day 1975 a fun experience "See you there!"

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Protect your gear from the burglar

At the January 17 meeting, (Dayton Amateur Radio Assn.) Sandy Cohen, W8JEZ, gave an excellent description of alarm systems and some suggestions on how to protect your radio gear, especially that installed in your car. The following is a brief run-down.

1. Make a list of all valuable items, with a good description and serial numbers. Your police department can file the serial numbers with the National Crime Computer if it's stolen. A photo of your equipment installed in your car or home is an excellent aid.

2. Engrave an ID number (your call and Social Security number) on the unit case, chassis, or inside the unit so it can be identified if recovered or located at the pawn shop (or hamfest). Check up on gear at some flea market but don't let on. Try to mount mobile gear firmly so that it can't be removed quickly before the alarm sounds, if you have one, or someone notices the tampering. Present ICOM mountings snap off too easily in five seconds and the hamburglar can get away in time.

3. Change the mushroom buttons on your car doors to straight buttons and don't have more than one-fourth inch extending when it is locked. A coat hanger can open most doors by going around the door seal. That's how the tow truck man gets in.

4. Don't broadcast your whereabouts over the repeaters, that you are going on a trip, or that you are going to park at a certain spot and be in the building for a time.

5. Clear any ham gear with your insurance agent so that your policy will cover it. You may require an additional rider and description details. Any loose gear such as left on the car seat or in the trunk is usually covered by your home owner's policy with the multiple coverage but you may have a deductible clause so that will still lose something.

These are just a few suggestions that may help. We did get a report that one member's car (with an alarm) was entered and the mobile unit was partly pried off but the alarm must have scared off the intruder. So, mount it firmly so that your equipment cannot be easily removed.

(RF-CARRIER, DARA)

•

The Nobility Net of North America is a non-profit gathering of Shriners and members of the Masonic Order who have dedicated their services in behalf of the world's most rewarding philanthropy . . . the cost-free care and rehabilitation of crippled and seriously burned children in our 22 Shriner's Hospitals, throughout Canada, Hawaii, Mexico and the U.S.A.

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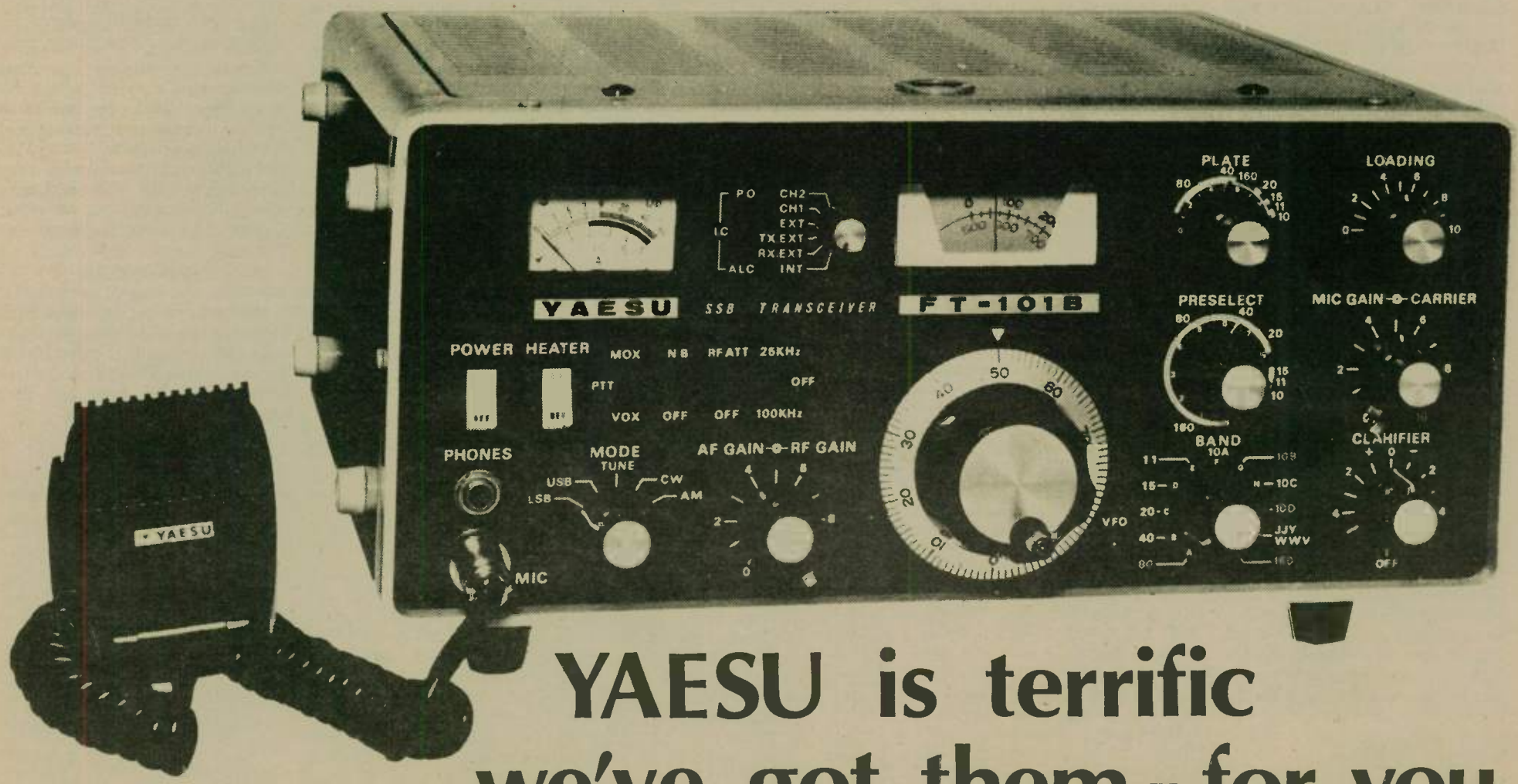
There is no initiation fee nor are there any dues. All that a Noble or Mason need do is check into the Nobility Net which meets each Saturday at 1700 GMT, on 14.310.

(de International Coordinator, W3FQT)



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TVI trouble? Show this to your attorney

Prepared by Robert M. Booth, Jr., W3PS
ARRL General Counsel

April 15, 1974
SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF WESTCHESTER

----------X

MICHAEL GILLERAN, GEORGIA GILLERAN, ERNEST WILLET, MYRON MATWIJEC, EILEEN MATWIJEC, DORIS DAVEY AND DOROTHY HORNE,

Plaintiffs,

-against-

LEONARD MENDEL,

Defendant.

----------X

MOTION TO DISMISS FOR LACK OF JURISDICTION

The defendant, by his attorney, respectfully moves that the complaint of the plaintiffs be dismissed for lack of jurisdiction.

In support whereof, the following is respectfully submitted:

I.

The Nature of the Proceeding

The defendant has been issued both amateur radio operator and station licenses by the Federal Communications Commission. The operator license, the Advanced Class, which is the second highest class of amateur operator license, was issued following successful examination before a Commission employee. The call sign, W2OVC, has been assigned to the station license.

The defendant has owned and been a resident of the premises at 185 Ramona Court, Yorktown Heights, County of Westchester, State of New York, for more than ten years and has operated his amateur radio station pursuant to the terms and conditions of its license on a more or less regular basis from those premises during most of his period of residency.

The plaintiffs, in their complaint, allege inteference from defendant's station to reception of radio and television signals and programs (Para. 6), that defendant's actions were malicious and unreasonable (Para. 6), that they are entitled to enjoy interference-free reception (Para. 7), and that defendant's antenna system, including "two tremendously large antennae towers", are contrary to local zoning ordinances and/or regulations of the Federal Communications Commission. The plaintiffs request (1) the awarding of damages totalling $1,000,000, and (2) an order directing the defendant to "forthwith and forever to remove from the described premises the said structures erected, and forever desist from the unlawful, unreasonable and improper radio broadcasting and transmitting practices and activities." With respect to the latter, the practical effect of such an order would be to modify or revoke the station license issued by the Federal Communications Commission.

An answer and demand for a bill of particulars has not been answered by the plaintiffs.

It is readily apparent from the allegations in the complaint, particularly those in paragraph 14, and from the March 17, 1972, communication to plaintiff Georgia Gilleran from the Engineer-In-Charge of the Federal Communications Commission's office in New York City, which is attached to the complaint, that exceedingly complex technical matters are at issue which may require most experienced technical experts to unravel, explain and interpret. As will be shown below, this is one of the reasons the Federal Communications Commission was established and granted such wide-spread duties and powers.

II.

The Federal Communications Commission Has Exclusive Jurisdiction To Impose Sanctions

The federal government, by the Communications Act of 1934, as amended, 47 USC §151 et seq.,1/ has assumed and delegated to the Federal Communications Commission exclusive jurisdiction over radio communication, including the licensing and operation of radio stations and their transmitters and the regulation of devices which might cause interference to radio reception. 2/ 3/ **Whitehurst** v. **Grimes**, 21 F 2d 787 [1927]; **FCC** vs. **Sanders Bros. Radio Station**, 60 S. Ct. 693, 309 U.S. 470 [1940]; **Allen B. Dumont Laboratories** v. **Carroll**, 86 F. Supp. 813, affirmed 184 F 2d 153, certiorari denied 71 S. Ct. 490, 340 U.S. 929 [1949]; **Farmers Ed. & Co-op Union of America, North Dakota Division** v. **WDAY, Inc.**, 89 N.W. 2d 102, affirmed 79 S. Ct. 1302, 360 U.S. 525 [1958]; **Lamb** v. **Sutton**, 164 F. Supp. 928, affirmed 274 F. 2d 705, certiorari denied 80 S. Ct. 1601, 363 U.S. 830 [1958]; **U.S.** v. **Southwestern Cable Co.**, 88 S. Ct. 1994, 392 U.S. 157 [1968]. In **Southwestern Cable**, the Supreme Court said:

The Commission was expected to serve as the "single Governmental Agency" 25/ with "unified jurisdiction" 26/ and "regulatory authority over all forms of electrical communication, whether by telephone, telegraph, cable, or radio". 27/ It was for this purpose given "broad authority." 28/ As this court emphasized in an earlier case, the Act's terms, purposes, and history all indicate that Congress "formulated a unified and comprehensive regulatory system for the [broadcasting] industry." **FCC** v. **Pottsville Broadcasting Co.**, 309 U.S. 134, 137.

Section 307(b) of the Act, 47 USC §307(b), authorizes the Commission to consider "frequencies, hours of operation, and of power . . . so as to provide a fair, efficient, and equitable distribution of radio service" to each of the several States and communities.

Section 312(b), 47 USC §312(b), provides as follows:

(b) Where any person (1) has failed to operate substantially as set forth in a license, (2) has violated or failed to observe any of the provisions of this chapter, or section 1304, 1343, or 1464 of Title 18, or (3) has violated or failed to observe any rule or regulation of the Commission authorized by this chapter or any treaty ratified by the United States, the Commission may order such person to cease and desist from such action.

Section 312(c) provides for notice and hearing before issuing a cease and desist order, with the burden of proceeding with the introduction of evidence and the burden of proof upon the Commission.

Section 316(a), 47 USC 316[a], provides that any order for modification of any station license "shall [not] become final until the holder of the license . . . shall have been notified in writing of the proposed action and the grounds and reasons therefore, and shall have been given reasonable opportunity . . . to show cause by public hearing, if requested, why such order of modification should not issue." Section 316(b) places both the burden of proceeding with the introduction of evidence and the burden of proof upon the Commission.

III.

The Commission's Rules Provide For Relief Such As Sought By Plaintiffs

In furtherance of its duties and responsibilities, the Commission has adopted, as Part 97 of its Rules and Regulations, rules regulating the Amateur Radio Service. With but an occasional exception not pertinent here, every radio amateur is issued two licenses, one a station license to which a call-sign is given, and the other an operator's license issued only after examination.

Section 97.73, 47 CRF §97.73, provides, in pertinent part, as follows:

Purity and stability of emissions

Spurious radiation from an amateur station being operated on a carrier frequency below 144 megahertz shall be reduced or eliminated in accordance with good engineering practice. This spurious radiation shall not be of sufficient intensity to cause interference in receiving equipment of good engineering design including selectivity characteristics, which is tuned to a frequency or frequencies outside the frequency band of emission normally required for the type of emission employed by the amateur station. . . . For purposes of this section, a spurious radiation is any radiation from a transmitter which is outside the frequency band of emission normal for the type of transmission employed, including any component whose frequency is an integral multiple or submultiple of the carrier frequency (harmonics and subharmonics), spurious modulation products, key clicks, and other transient effects, and parasitic oscillations . . . The frequency of the emitted carrier wave shall be as constant as the state of the art permits.

Section 97.77 of the Rules, 47 CFR §97.77, provides as follows:

Practice to be observed by all stations

In all respects not specifically covered by these regulations, each amateur station shall be operated in accordance with good engineering and good amateur practice.

Section 97.131 of the Rules, 47 CFR §97.131, under the general heading of **Administrative Sanctions**, provides as follows:

Restricted operation

(a) If the operation of an amateur station causes general interference to the reception of transmissions from stations operating in the domestic broadcast service when receivers of good engineering design including adequate selectivity characteristics are used to receive such transmissions and this fact is made known to the amateur station licensee, the amateur station shall not be operated during the hours from 8 p.m. to 10:30 p.m., local time, and on Sunday for the additional period from 10:30 a.m. until 1 p.m., local time, upon the frequency or frequencies used when the interference is created.

(b) In general, such steps as may be necessary to minimize interference to stations operating in other services may be required after investigation by the Commission.

Section 97.133, 47 CFR §97.133, provides that "in every case where an amateur station is cited within a period of 12 months for the second violation of the provisions of . . . 97.73, the station licensee, if directed to do so by the Commission, shall not operate the station and shall not permit it to be operated from 6 p.m. to 10:30 p.m., local time, until written notice has been received authorizing resumption of full-time operation." Section 97.135, provides for an order directing suspension of operation from 8 a.m. to 12 Midnight, local time, upon receipt of a third notice of violation of Section 97.73 within a period of 12 consecutive months.

IV.

The Plaintiffs Have Not Exhausted Their Administrative Remedies

It is axiomatic that administrative remedies must be exhausted before seeking to invoke the jurisdiction of a court of law in matters over which an administrative agency has primary jurisdiction. Such is the case here.

There is nothing in the complaint even intimating that any of the plaintiffs ever have had any communications with the Federal Communications Commission other than a form letter to Mrs. Georgia Gilleran, dated March 17, 1972, from the Engineer-In-Charge of the Commission's New York City office, a copy of which is attached to the complaint. The plaintiffs only allege that installation of certain unidentified devices following receipt of that letter were ineffective. (Para. 13).

It is readily apparent from the rules of the Commission noted in the preceding section that the Commission is capable of and prepared to take appropriate action promptly to bring to a halt any improper operation of defendant's station.

The plaintiffs request the defendant be enjoined from operating his amateur station "during the normal waking hours of 8:00 A.M. to 11:00 P.M." (Para. 7). As noted above, Section 93.135 of the Commission's Rules provides for issuance of an order requiring the suspension of operation between 8 AM and Midnight if three notices of violation of the rule prohibiting radiation of spurious signals (Section 97.73) are issued within a 12 month period until the cause of the improper operation has been corrected. The practical effect of an order of this court limiting the hours of operation or otherwise prohibiting operation of defendant's station would be to modify or revoke the license or to issue a cease and desist order. However, Sections 312(b), 312(c), and 316(a) of the Communications Act bestow such authority and power upon the Federal Communications Commission. For this reason, the complaint must be dismissed for lack of jurisdiction.

Wherefore, the premises considered, the defendant respectfully requests that the complaint herein be dismissed and that he be awarded the costs and disbursements of this action.

1/ The Communications Act of 1934 was preceded by the Radio Act of 1927 which created the Federal Radio Commission. 47 USC §81 et seq. (repealed)

2/ Radio is all encompassing, and includes television. 47 USC §153 (b).

3/Section 302a (a), 47 USC §302a(a), provides as follows:

(a) The Commission may, consistent with the public interest, convenience and necessity, make reasonable regulations governing the interference potential of devices which in their operation are capable of emitting radio frequency energy by radiation, conduction, or other means in sufficient degree to cause harmful interference to radio communications. Such regulation shall be applicable to the manufacture, import, sale, offer for sale, shipment, or use of such devices.

25/ The phrase is taken from the message to Congress from President Roosevelt, dated February 26, 1934, in which he recommended the Commission's creation. See HR Rep. No. 1850, 73rd Cong., 2d Sess., 1.

26/ S. Rep. No. 781, 73rd Cong., 2nd Sess., 1.

27/ **Ibid**. The Committee also indicated that there was a "vital need for such a commission, with jurisdiction over all these methods of communication." **Ibid**.

28/ The phrase is taken from President Roosevelt's message to Congress. HR Rep. No. 1850, supra, at 1. The House Committee added that "the primary purpose of the bill [is] to create such a commission armed with adequate statutory powers to regulate all forms of communication . . . " **Id**, at 3.

In addition to the memorandum heretofore prepared by R.M. Booth, Jr., the attention of the Court is called to 58 N.Y. Jurisprudence, §117, p. 794, where the following appears:

"It has long been recognized that the business of broadcasting, being a species of interstate commerce, is subject to reasonable regulation by Congress under the 'commerce clause' of the Federal Constitution, and, at least to the extent of the matters embraced in the regulatory powers of the Federal Communications Commission, the field of

(*please turn to page 11*)

Tell us something

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It's our hope you'll join in with the spirit of friendship and good will that exists amongst our readers.

Norm Brooks, K6FO

Police

(*continued from page 1*)

The group, under police protection, was off to the 9th Pct. A Drake ML2 initially on loan from WB2EIL's car was installed but given back to him the following day when members were able to borrow another DJ 30 from Carl Glovinsky, WA2IAF.

With two precincts operating on one land line, the group began to experience technical problems which WB2EIR promptly solved by arranging for the 7th Pct. to answer all incoming calls. If the call was not for the 7th Pct., then the operator at the 9th Pct. could interject and pick up. Another problem encountered was the strangeness of the dead telephone effect when working through an auto patch from a land line. Mike Young, WB2EIL, solved this by having the operator end each statement by using the phrase "K", which immediately alerted those familiar with radio that there was a radio connection to the telephone equipment.

The auto patch was principally used for administrative communication and for the type of communication that the Police Department does not wish on the air. (Some of the police officers did not understand that their conversations were being transmitted over the air, although some 4 MHz lower than the police frequency.)

It was interesting to hear requests for classified information going out and being challenged by alert policemen. It went something like this. "You can't be calling from the 7th Pct. They don't have telephones." If you're on the job (a working policeman), give me the color of the day (pass word)." "I can't, we're on the air." "What do you mean, you're on the air? I'm on a telephone!"

By now, some 48 hours later, all four members of the club were ready for the sandman. Andy's wife and father-in-law had joined us at the 9th Pct. We had been living on hot dogs and Yoo-hoo purchased at the local umbrella club where we began to hear rumors that New York Telephone was connecting temporary lines into the 7th Pct. and that by midnight they would be at the 9th. We were all very tired when Joel Haberman, WA2YMQ, from Cranford, New Jersey, came on frequency asking if we could be of any assistance. Joel took control at the 9th and shut down at about 11:30 p.m. The Telephone Company was one-half hour early, but 63 hours late.

Radio Amateur Repeater Association of Staten Island

TVI trouble?

(*continued from page 10*)

radio and television regulation has been pre-empted by the Federal Government."

The field having been pre-empted, it is submitted that this, read with the authority accompanying the brief, mandate that the Court dismiss all those matters in the complaint which encroach upon the jurisdiction of the Federal Government and the FCC. It is further submitted that any claimed damages arising out of legal and authorized operations cannot, as a matter of law stand.

With regard to the section entitled 440.22 of the Zoning Law, it is submitted that the ordinance is vague and as will be shown later, unconstitutional. It talks about "single antennas" and leaves that matter to surmise as to what it intended. It talks about "radio, television and electronic transmitting towers," including "accessory radio transmitting or relay stations or similar station" other than those operated "by a public utility". It would appear that commercial installations and stations such as those used so widely in the business radio and taxi-cab services are what the framers of the ordinance had in mind. The one acre and dimensional limitation of §440.222 support such a presumption and conclusion. Such limitations can never be applied to a homeowner's television receiving antenna. Statutes and ordinances must be strictly construed and the usual and normal meaning given to every word, phrase, clause and sentence, which, if done, can only support the conclusion that the section is inapplicable to all noncommercial antennas and supporting towers including those used for television reception and amateur radio.

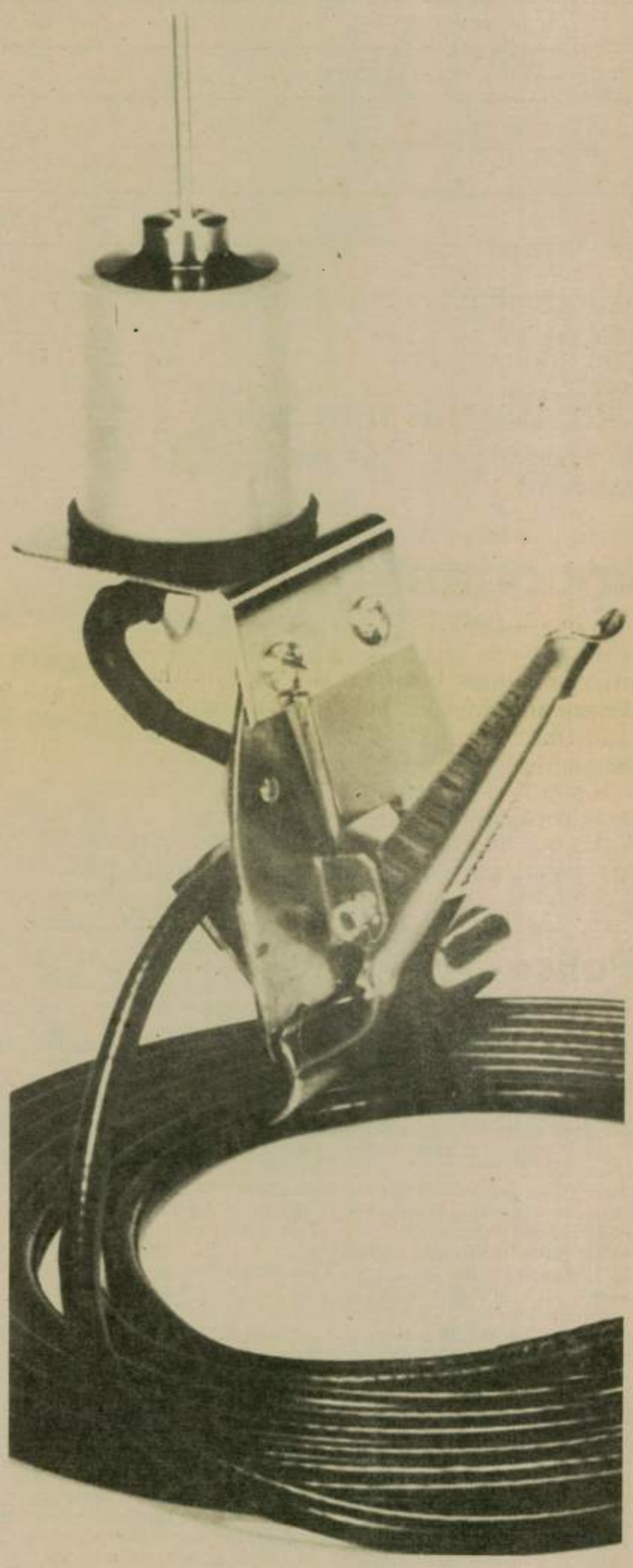
Furthermore, it states that the site of any tower **or any transmitting station** shall be at least one acre in area. It is submitted that such a restriction is unconstitutional because it would prohibit an amateur radio station from operating unless the site on which the station is located is at least one acre in area.

Section 440.224 prohibits a tower "which would cause interference to local radio and television reception", and this, as we have seen is unconstitutional because of the Federal preemption of the field. Furthermore, it would be impossible to determine whether or not interference results until the tower was installed and this of course is an impossible guideline.

Upon all the facts and the law herein those portions of the complaint which infringe upon the Federal Communications Act of 1934 and the power of the FCC, and in which said field is pre-empted must be dismissed. The zoning ordinance is so replete with inconsistencies and usurpations of Federal authority that it too must be stricken.

Repectfully submitted,
MONROE Y. MANN
Amicus Curiae

Don't tell the crooks
a radio is in your car
avoid the bad rip-off
take your antenna off



Bravo for Larsen! They've got something great in their line of antennas. For example: The magnetic-mount (above) and the gutter clamp mount (right). No highway speed will ever remove that mag mount. Both come with the silver plated 5/8 wave antenna, ten feet of coax and attached plug

The price is $35 and you get an antenna with "a difference you can hear".

Here at M-TRON we see a lot of items and we'll tell you, with Larsen the quality sticks out all over the place.

A few of their other 2 meter antennas are listed to the right.

LM-150K-5/8 wave w/ coax-fits 3/4 inch hole $28.35

PO-150, 5/8 wave w/ coax, mounts onto your SO-239 $24.50

HY-150, 5/8 wave, mount it into your low band 3/8-24 ball mount. (unscrew the hustler and you are on 2 meters $22.50

Get your Larsen at M-TRON

The Worldradio News Section 2 April 1975 Vol. IV, No. 10

DX

Well, April has arrived. The DX Contests are past history and now we can look forward to talking over DX and Contests at the upcoming DX conventions. The months seem to fly by when you have a column deadline each month.

We would like to share DX with you, to print your DX comments and ideas, to print DX pictures, and to cover the activities of your DX club. Remember to send any information in so we can use it: 7632 Woodland Lane, Fair Oaks, CA 95628.

While Lenny Mendel, W2OVC, evidently won the major portion of his tower case in that regulation was a federal matter and not covered by local courts, he was convicted of maintaining a "private nuisance" in violating local zoning ordinances. A look at the financial burden shows that even if you don't lose, the costs can be tremendous. Tis better to do everything you can to head off such problems. Remember, it could happen to any of us.

Look for a release shortly from the FCC on the 1976 Bicentennial callsign system. The FCC has also made necessary changes to its administrative regulations allowing for the prefix use of AA and N and allowing 1 by 2 and 2 by one callsigns for amateurs. Watch for a new Docket on the amateur call sign structure.

COCOS

HB9AQM plans to open up April 22 signing HB9AQM/TI9. The plan calls for a one-week operation. Watch 1802, 3525, 7025, 14025, 21025 and 28025 on CW and 3795, 7095, 14195, 21295 and 28595 on SSB.

EASTER ISLAND

Father Dave Reddy, CEØAE is back on Easter and should be active again. QSL to WA3HUP.

SPRATLY

Operation by Maurice, VS5MC, is still go for April 14-23. Watch 14020, 14190 and 14220.

(*please turn to page 22*)

RPT

T-MARC - Mid-Atlantic Repeater Council

By George Miller, K4EJY

Over the past year and a half we've had numerous requests that T-MARC develop and publish a list of "Rules" for repeater operation. Now we all know that T-MARC does not have the authority to develop rules, but since the demand for guidelines when operating on repeaters has continued, we offer herewith our suggestions for repeater operating.

1) Repeaters are true "party lines." Lots of people are listening. Some of them are monitoring for control purposes or for emergency traffic only, others are just curious, some aren't amateurs. The point here is to remember to watch what you say since it can reflect not only on you and the group who operate the repeater but on all of Amateur Radio.

2) Keep your calls short. Your call sign followed by "listening" has become the informal VHF repeater CQ. If a short call doesn't get the station you want, a long one won't do it either. Try waiting 15 or 20 minutes and try again.

3) State your business. If you just want to talk, a simple statement that you are "listening" will usually gather anyone who is similarly inclined. If you are lost, broken down, or otherwise in trouble, say so. Lots of people are listening who are too busy to rag-chew but will be more than happy to help a fellow amateur in trouble. Avoid the use of ambiguous or inane statements such as "can anybody copy?" (the control operator can or the repeater wouldn't be on the air) or "GRZ?" (in the midst of dead silence this guy wants to know who is calling him!) and the like.

4) Obey the rules. Remember that it's a violation for the repeater to retransmit your violation, and your foolishness could jeopardize the repeater license.

5) Identify "If you key it, ID it" is a good rule. If you blip your mike button to listen for a repeater's tail and don't identify, that's an illegal transmission for you and for the repeater! Under current rules, you must identify at the beginning and end of each series of transmissions and every

(*please turn to page 24*)

SSTV

How would you like to view SSTV on a regular TV set?

It's happening, but don't look for a commercially-built unit to plunk down next to your Collins, Drake, Swan, Yaesu or Heathkit! It will be awhile, but work is being done to permit viewing images transmitted by SSTV on a conventional TV set or monitor. From a marketing point of view it's a few years away, but for some operators, watching SSTV images reproduced on a bright black and white screen as whole pictures, is already a reality. Here's a report about some of the current activity and a few pictures to bring you up to date.

First of all, a reminder: To view slow scan pictures on a "regular TV set" it is necessary to change the line scanning rate and the frame rate to conform to the TV broadcast standards (or something closely related to them). This is called slow to fast scan conversion and it means that we take all of the information that is collected in the eight seconds per frame transmission of an SSTV frame and show it on a TV set in complete form at the usual 30 frames per second.

The first of a two-part article on slow to fast scan conversion by Dr. George R. Steber, WB9LVI, appeared in the March issue of QST. It is described by the author as "a tutorial presentation describing the fundamentals of digital slow to fast scan conversion using shift register and PCM techniques." On the other hand, slow scanners who have read and studied Dr. Steber's article are more apt to describe it as a "real blockbuster." I think that this is true and I believe that the perspective of time will make it even clearer that Dr. Steber's tutorial presentation has provided the ground work for needed improvements in the quality of slow scan images and the overall capability of the system.

In recent correspondence, Dr. Steber, who is associate professor of electrical and computer science at the University of Wisconsin-Milwaukee, pointed out that compatibility is the main problem that any designer faces in developing new equipment. But, he also noted that this should not inhibit experimentation with concepts that do not fall within the present working standards of SSTV.

Dr. Steber is experimenting

(*please turn to page 26*)

TFC

Refiling Amateur Radio Messages into MARS System

In the past month I have received several messages requesting information on how to refile Radiograms into the MARS System. I appreciate requests for information of this type since it enables me to answer your questions and cover topics you would like to read. I contacted Ed Brichta, W6RSY, who does a fair piece of MARS work with the Navy MARS traffic leaving the West Coast for overseas areas, and he provided me with the following information.

Navy-Marine Corps MARS message refile procedures are found on page 6-30 Article 06.0600 of Communications Instructions for Domestic Messages NTP-8. Navy-Marine Corps MARS refile requirements for overseas traffic is as outlined in NMC-MARS messages dated 081600Z Dec 73. This information is fine and dandy if you happen to have a copy of the applicable publication. (It is mentioned here for those of you who have the info and didn't know it. Now you know where to look). In order to make the overseas refile precedure a little clearer, especially for us non-holders of the pertinent publications, let's look at a sample message, as it should look while it is being handled on amateur frequencies

Nr 73 R W1ABC ARL 4 Boston Mass Ø123Z Mar 5
MSGT Robert Z Smith USMC 555 66 789Ø
Seventh RRFS Box 2Ø3
FPO San Francisco Calif 9663Ø
BT
ARL Forty Six Love
BT
Mom and Dad

If you don't remember the parts of this message go back and review the past articles.

Let's refile this message into

(*please turn to page 34*)

VHF

By Louis N. Anciaux, WB6NMT

First off this month I'd best correct a few errors made in last month's issue. The front page photo was not the SRI 150' dish, but was indeed the 60' dish at La Posta, the Astrophysical Observatory of the NELC at San Diego, CA. Jim Forgione is really WB6FZC, and Jay Liebmann is actually W5ORH. Typo errors get to all of us.

While on the line of EME, a very interesting thing happened during the Tests in February which duplicated a similar occurance five years ago. I didn't find out about this until 19 March when Lucky Whitaker, W7CNK, called me. As I mentioned last month, we did copy sigs from Lucky at W6RDF. It turns out that Lucky was running a 6252 amp at something under 50 W output. That we did hear and make positive ID of his sigs was some minor feat under guise of his low power.

The similarity arises from our first test together in January, 1970. I was listening for Lucky's EME sigs on 220 MHz via the Moon on a one-way test. At the start of our test, unknown to me, Lucky's transmitter had failed and he was limited to the 6252 driver stage. Output power was on the order of just over 50 W. After the test was over he informed me via our 75 meter link that he had been running just the small rig. He almost stopped the test, but at the last minute went ahead without telling me of the lower power.

Five years later he was again faced with not having the big amp working and decided to try the driver by itself. This is the same amp he used on 220 but modified for 144 MHz. The gang at WA6LET did not copy anything from Lucky during this period. I just happened to copy Jerry Ford, WA7KYZ, telling the SRI gang to listen for Lucky up the band, and followed him up to

(*please turn to page 30*)

DX DIGEST

Gary Stilwell, W6NJU

NORFOLK ISLAND

Gil Moody, VK4AK, should be on from Norfolk the latter part of April. Watch 3695 around 0600, 7090 SSB, listening 7200 after 0600, 14200 SSB, listening 5 to 10 kc up, 21300.

FERNANDO DE NORONHA

PY7YS expects a one or two day operation around April 15. Call should be PYØYS.

HERE AND THERE

QSL's for 3C1AGD operation from Fernando Poo by SMØAGD go to SM3CXS. FPØMM has been active. QSL to WA1JKJ. QSL for KFØUMD to WAØQIT and for KX6ZZ to VE3GUS. FWØDX and FWØAA QSL's should now all be in the mails. 3B8DA hopes to operate from St. Brandon in the near future. PJ8KI QSL to W8KI.

For those interested in propagation forecasts, George Jacobs, W3ASK, and Ted Cohen, W4UMF, have a good article in the March issue of CQ entitled, "A Breakthrough In Simplifying Ionospheric Propagation Forecasts."

VP8OB currently active from South Georgia and LU1ZA on weekends from South Orkney. CE9AT continues active from South Shetland. FR7AI looking for Glorioso operation in July. Wayne Warden, W9MR, aiming for Easter Island in mid-April.

Don't forget the Fresno DX meeting on April 19-20 and the Dayton Hamvention on April 25-27.

MOVING

A lot has been said about Rule 9 of the DXCC rules, particularly by those who have moved and had to start DXCC over again. The rule certainly does not appear to be fair to all but also appears to have withstood the test of time and has been pretty workable.

There are those that are not happy with equalizing the rule but want the moving limitations further expanded, particularly to cover the distance that they individually have moved.

From W6APW of the Southern California DX Club comes a new approach. Pete says why not have a "basic" DXCC, for example, the first 100 countries. The same moving limitations would apply. One would get a DXCC certificate from W6 and when he moves to W1 he has to get a brand new certificate. But, after 100 countries (the basic award) you would then get a "lifetime" country total. You could combine all countries, provided you stayed in the same country, into one "lifetime" total.

A new twist to an old problem? The DX Advisory Committee would be interested in your comments.

DXCC FEES

The ARRL recently announced fees for DXCC awards effective June 1. ARRL members will pay $10 for a DXCC Certificate while non-members will pay $15. These charges will include your DXCC Certificate, return first class registered postage, lapel pin and handling. These charges became necessary evidently due to the financial condition of the League and the idea that DXCC should be self-supporting.

The increase comes evidently from the January ARRL Board meeting creating a CW DXCC Award. The motion reads: "Moved, by Mr. Price, seconded by Mr. McConaghy, that at the request of the DX Advisory Committee, a DXCC Certificate be available from ARRL endorsed for CW only contacts in the same fashion that phone only DXCC certificates, specific regulations for the award to be developed by the Communication Department."

DXCC fees have been charged to non-members for some time; yet, if you try to find what the DXCC income and expense is for the DXCC program, it appears non-existent. The 1973 financial report of the League lists no DXCC income. Strange, when $1 income is listed for commemorative first day covers sold and $36 income for sales of the Spanish edition of the **Handbook**.

Evidently, DXCC income is included under membership supplies sales. While headquarters station expense is listed and automobile expenses of $536 are listed, there is no expense for DXCC. It is hard to accept that an in-depth study was completed when no figures are available and at least one of the official family has never seen such a report.

If one accepts that services should be self-supporting and that the fees for DXCC are fair, then why stop there? Why single out one activity and subject it to be self-supporting and not the others?

In 1973, 1,397 certificates and 737 stickers were issued for the code proficiency qualifying runs. There were also 730 WAS certificates, 283 Old-Timers Club certificates and 1,856 Rag Chewers certificates issued. The League corrected 2,361 code proficiency papers and each WAS certificate required the checking of 50 cards. During 1973 one full-time employee devoted his time to contests. Some 8,344 contest logs were received, checked and some 750 certificates issued. In traffic there were 509 BPL certificates and 50 medallions.

It would seem that special interests perhaps should be self-supporting, but why stop with only DXers and make them the only group to help foot the bill?

THANKS

My thanks for information to the West Coast DX Bulletin, Geoff Watts News Sheet, Long Island DX Association and HR Report.

•

What is a country?

By Joseph W. Brownell, W2BSI

What constitutes a country anyway?

Recent letters in radio periodicals indicate this is a most misunderstood subject. Non-DXers and some non-amateurs question how Amateur Radio can recognize as countries places which are not even empowered to issue their own radio licenses. With raised eyebrows they ask how the numbers of countries in the DX "list" can stand at nearly triple the United Nations membership.

This is a tempest in a teapot. No one outside our ranks really cares about the list. However, many amateurs do care and this article presents the opinion of a professional geographer. He is the fellow who deals with the world and its countries daily. It may come as a surprise to find that geographers accept much of the DXCC list as it stands.

A little definition is in order. A "country" is a distinct area of the earth's surface which usually has a permanent population. Size of land area or population is unimportant but there should be a sense of belonging (or nationalism) which is felt by the populace.

A country may be independent. If so, it is called a sovereign state and has the right to enter into treaties with other states and to belong to international bodies. The United States (W/K) is such a state, but then so is little Luxembourg (LX). The list of these states now exceeds 130 in the United Nations.

But some countries are governed from outside by more powerful states. Lacking inde-

pendent status they are more properly called colonies. Angola (CR6) is a good example. Still, they are countries in a geographic sense and no geographer would object to their inclusion on a DX list.

There are other complications. Since World War II some older states like Germany have been broken into smaller parts, each of which has claimed independence or sovereignty. But not all world powers recognize each of the new states in such cases. Here the radio fraternity is caught between political blocs, something Amateur Radio does not like to see happen. In the case of Germany we are fortunate to see, finally, both of the new Germanies are now recognized by the United States and each now belongs to the United Nations. There should be no question about accepting both DL and DM credits.

Many countries have had long histories as separate entities before becoming absorbed into a larger state. Although they haven't been self-governing for centuries, England, Wales and Scotland are recognized as historical entities even though they are now combined into the United Kingdom (G). Our tendency to refer to this state as England is just a bit sloppy and good DX men have learned never to tell a Scot that he lives in England.

The USSR presents a whole bag of problems. It is a federation of many Russian and non-Russian countries called republics. Two of them (the Ukraine and Belorussia) even have seats in the United Nations! Three others (Latvia, Estonia and Lithuania) were independent states in the recent past but were swallowed up by the USSR during World War II. Few of the other republics should be treated as a DX country is a problem geographers are grateful not to have to handle.

Finally, there are the rocks, reefs, sandbars and even Antarctica. Geographers are genuinely puzzled at our attempts to call them all countries since most are uninhabited. In cases where permanent or semi-permanent posts are maintained (as in Antarctica) they would probably say, "Yes, it can be a country, at least temporarily." But for uninhabited rocks exposed only at low tide, the answer is clearly, "No!" Unfortunately, most cases lie somewhere in between.

What then about the DX-peditions to strange and inaccessible places? They may not be countries but they are challenges and they are most certainly fun. Perhaps—just perhaps—there should be a special award for this kind of DX.

But, if we persist with a DX list containing seldom-seen pimples on the face of the earth, populated by penguins, the geographers will smile tolerantly and say, "It's your game, you are free to make any rules you wish."

DXers

You are cordially invited to attend the Annual International DX Convention to be held at the Hilton Hotel in Fresno on 19 and 20 April being hosted this year by the NCDXC.

Mail your check, made out to NCDXC, for $21.00 to:

Donald L. Schliesser, W6MAV
1900 Powell Street-Suite #500
Emeryville, Ca. 94608
No return receipt will be sent unless you so request and include SASE.

Be sure to mention the DX meeting if you call in your reservation to the Fresno Hilton. Rates will be: Single — $17.00, Twin or Double — $22.00 per night.

Featured speaker at the Banquet will be Fred Laun, W9SZR/3, recently of LU5HFI. Armond Noble, W6AJY, Editor of **Worldradio News**, will speak at the breakfast.

Other guests will include Ellen White, W1YL; Phil Wight, VS6DR; Fern, CR9AK, and many others.

Other sessions will be: Kingman Wrap-up; Gary Stilwell, YJ8GS-DXpedition; Jim Maxwell, K6AQ-Bandwidth compression techniques, Jay Holladay, W6EJJ, -DX'ing via Oscar; Jack Curtis, WA6JNJ, — What's new in Keyers?; Contest Forum, and DX Forum.

We have many prizes — for the ladies, also — many surprises and a special Beer-Bust after the Banquet.

Bob Ferrero, K6AHV, will sponsor the usual "Personality Improvement Hour" prior to the banquet.

See you there!

•

Improve your CW copying for that Extra Class CW Exam

The Northern California Net (NCN) meets in two sessions nightly. NCN 1 (Fast Net) meets on 3630 kHz at 0300Z (7 p.m.) NCN 2 (Slow Net) meets at 0430Z (8:30 p.m.). Both nets have access to and from the National Network.

The nice part of this net is that it welcomes newcomers on both the Slow (10-12 wpm) and Fast (20-25 wpm) sessions.

This is a great way to learn the fine old art of message handling while building up your code speed. Start in on the slow session and then progress to the fast one. Before you know it, you will be putting it down 10 to the line at 20 or 25 wpm.

Further info can be obtained from Jettie Hill, W6RFF, at 1436 Miramonte Ave., Los Altos, CA 94022, or the Net secretary, Dan Drath, W6QNB, 136 Trinity Lane, Portola Valley, CA 94025.

FDT Newsletter

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YOU!

You are invited to contribute to this newspaper which chronicles the events and achievements of Amateur Radio.

We're looking for articles about what we call "the amateur radio experience."

Write about what you have done. Share your experiences. Open up some new horizons for someone else.

Write about what you think; that may get someone else to thinking.

There are many challenges in this wonderful avocation; share what you have found with others.

The real joy for us here at the **Worldradio** offices is that this publication is written by its readers. We enjoy the unique relationship that this periodical has with its readers.

Write about what you find interesting. Chances are some others may also. Your article may open the doors to a new hall for others to travel down.

Let's have more "idea exchange." Let's talk to each other. One reader once called **Worldradio** "a roundtable in print." We like that idea. So, in this roundtable,

It's your turn to transmit.

May 1975 •
Maximum Usable Frequency from Burbank, CA

The numbers listed in each column are the Maximum Usable Frequencies (in Megahertz) for contacting five major areas of the world throughout each 24-hour period of each month.

Probability is estimated to be a minimum of 70 percent.

MAY 1975

UT	AFRI	ASIA	EURO	SOAM	SPAC
01	11.2	19.1	12.2	20.5	23.9
02	9.5	20.2	11.1	20.1	24.1
03	9.7	21.2	12.0	18.1	24.5
04	13.4	20.9	11.7	16.1	24.9
05	11.7	19.3	12.3	15.1	24.4
06	10.1	17.5	12.5	13.8	20.6
07	9.5	16.6	12.3	11.2	18.4
08	8.3	16.1	10.6	9.3	15.2
09	7.6	15.1	9.8	10.7	13.4
10	7.7	13.5	9.4	13.0	13.2
11	8.7	12.0	10.7	12.6	13.7
12	10.3	11.6	12.1	13.4	13.8
13	12.1	12.3	14.3	15.7	13.0
14	13.5	14.2	16.4	17.9	14.0
15	14.3	14.6	17.5	18.5	14.4
16	14.5	13.8	17.6	18.1	14.3
17	13.4	13.7	17.3	18.4	13.3
18	15.0	14.3	17.1	20.2	12.3
19	15.4	16.0	17.4	22.3	13.1
20	15.3	18.3	17.5	23.8	15.9
21	15.1	20.0	16.8	24.7	19.2
22	14.0	20.4	15.5	23.8	21.5
23	13.2	20.0	14.1	21.7	22.8
24	12.6	19.2	13.0	20.5	23.5

REPEATERS

(*continued from page 21*)

10 minutes during the series. Have the intestinal fortitude to stand up and identify yourself; don't be a spineless, illegal phan-tom. While on this subject, more repeater hours are wasted with excessive IDing than in any other manner. Read the requirements for IDing and follow them but please don't overdo it. Some of our repeated transmissions sound like one long and continuing ID.

6) Emergency traffic has absolute priority, but don't oversell the problem just to get the frequency. It's embarrasing for you, for assisting stations, and for Amateur Radio if you roust out an army of emergency assistance for a trivial problem. Make sure you're part of a solution, not part of a new problem.

AUTO-CALL

How to get the FCC to write to you

Listening around the frequencies, we can't help wondering why some amateurs (even the "ol' timers") constantly ask the FCC to cite them for violations of the regulations.

For instance, we have those who time after time break into a conversation without identification — to add a little remark or so — and back out again. Very funny. Even more funny is the amateur who answers or even acknowledges an unidentified transmission of this nature. They both earn citations!

Right behind the above joker is the amateur who signs out of a roundtable QSO with a "W8— clear." The interpretation of this procedure is "Give me a citation!" Although you don't have to identify every station in a roundtable (and please don't) when you're signing off, you must identify at least one other station in the group.

Then there is the amateur who identifies himself with just a plain W8—when he is mobile or portable. He very carefully omits saying, after his call, "Mobile 8," "Portable 8" and thus loudly announces to any listening inspector that he wishes a citation or violation of paragraph 97.87, station identification.

"Mobile" or "portable" alone is not enough. On the other hand, it is not necessary to tack on the "Mobile 8," etc, of the station you are working. Just your own, please. And don't forget to change to "Mobile VE3" when you cross the bridge.

Now, we know that you (and I) don't do any of the above, of course, but when you hear others doing such things, why not gently point out the danger involved for themselves and for others whom they might mislead. Let's keep this area one of the most "Professional" in operating practices and operate our stations in the "cleanest" manner.

[Lake Erie Amateur Radio Association's Greater Cleveland Repeater Newsletter.]

Emergency communications?

By Bob Voss, WB4WVC

On Sunday, the Lynchburg Amateur Radio Club had another opportunity to provide emergency communications needed in a search effort for a missing man. It was an interesting evening, and certain things became obvious in short order to those who participated. George Rose, the LARC EC, was informed of this communications need at 10:20 p.m. on Sunday, and proceeded to start rounding up portables, and operators. WOW!!! You would not believe how many dead, weak, sick, disabled, and generally poor batteries could be turned up in fifteen minutes. It seems many people have portables but few are "ready to go". Fortunately a few people had fully charged batteries in their radios. Several people had more than one portable, but only one was ready to go.

Sunday night was cold, about 25 degrees and chilly . . . at these temperatures, a nicad battery delivers only a small percent of its rated power, and a weak battery just doesn't do the job in cold weather. We were caught with a lot of dead batteries, and for a group that prides itself on emergency capability, we came up short of expectations. It doesn't do much good to carry a radio with dead batteries through the woods, up and down hills, etc. Also several other things were noted that affect our ability to provide radio communications. Porta-Mobile type radios were needed to cover the hilly terrain for one thing.

How do you rate on WB4 WVC's emergency preparedness quiz for VHF operators?

1. Do you have a portable on 146.94 simplex?
2. Do you have a charged spare battery for it?
3. Is the portable always charged and set to go?
4. Do you have a working flashlight?
5. Do you know who to call to coordinate any amateur participation in emergency?
6. Do you have a mobile with 34/94 and 94/94?
7. Do you have all weather clothing available for rain? Snow? Heat?
8. Is your AREC Card current?

Score one point for each "yes" and nothing if you can't answer yes. If your score is 8, then you're in fine shape. If it's less, then you should think about making it 8 . . . Let's see if next time the need arises for communications, that everyone can check in with ready to go equipment. The above is intended for VHF oriented amateurs, but the same is also true of HF operations. 73 de WB4WVC

LARC Bulletin

Intel 8080, 8 bit CPU: $175.00; 8038, VCO: $4.95; MM5203Q-1, 2048 bit Re-prom: $16.50; NEC6003, 2K bit ram: $9.00; 1103A-2, 1K ram: $3.95; MCM7001, 1K ram $6.95; 8111, 1K ram: $12.25; 8T97, hex inv: $3.50; 5503, 256 ram: $2.25; NE526 V. compar: $1.55; AY5-1008, TTY RX: $6.00; AY5-1010, TTY TX: $6.00; AY5-1013A UART: $13.95; XR205, func. gen: $12.50; XR210 FSK mod/demod: $6.00; XR2240 prog. timer: $5.95; S1757, UART: $15.95; MM5740AAE, kybd encod: $22.50; SPDT, ctr-off, mom. mini toggle sw: $1.75; VA210C, 10GHZ klystron: $35.00 Catalog 10¢. ELECTRONIC DISCOUNT SALES, 138 North 81st Street, Mesa, Arizona 85207

(*continued from page 40*)

Mobile Ops: Tired of Ignition Noise? Please send SASE for info on shielded ignition systems. Summit Enterprises, 20 Eider Street, Yarmouthport, MA 02675.

Urgently Wanted: Service Tech./Sales familiar with Amateur and CB radio equipment. Prefer one holding 1st or 2nd class commercial class ticket and amateur ticket. Experience in solid state. Would prefer young male, single, willing to relocate in beautiful Rocky Mountain states. Send resume to Worldradio, Box 26, 2509 Donner Way, Sacramento, CA 95818.

For Sale: BTI amplifier, 3-1000Z tube. Unit in very good condition. WA6FIT, 11591 Rabaul, Cypress, CA 90630. (714) 897-8059

Sell: Drake TR4C transceiver, RV4C remote VFO, AC4 power supply, Regency Model ACT-R10H/L/U scanner radio, 110VAC, 12VDC low band, VHF, UHF. 10 channels with crystals installed for San Francisco police department, San Francisco fire department, California highway patrol. All items include manuals, in new condition. Will ship. $800 takes all. L.G. McFadden, WB6EJQ/6, 746 Geary St., Apt. 502, San Francisco, CA 94109. (415) 771-0755. Night worker, so please call before 2:00 p.m.

Want immediately: multi-band loading coil master mobile type 333. John A. Conroy, WB4FXY, 1003 Elliott, Murfreesboro, TN 37130.

FM Solid State Receiver: Lafayette PF-200A. 30-50 and 144-172 MHz, tunable or crystal. In fine condition. $50. You pick up. K6YSS, 92 Robak Dr., Watsonville, CA 95076. (408) 724-1708.

For Sale: Heath HW-7 w/homebrew AC supply & PC boards for QST modifications. WB7AHH, Box 3742, Tucson, AZ 85722. Asking $65.

Exclusive: Only $24.95 brings fantastic Surplus Buyers Course. Free details. Weekly Government surplus catalogues $6.00/year or free with course. INSIDE SCOOP, 5050 Roseville, North Highlands, California 95660.

Wanted: Pre 1960's Gibson or Fender electric guitars or amps. Have 1954 Fender Telecaster for sale. Also have original Les Paul recordings for sale or trade for dubbing. Tom Goez, 12605 Rott, Sunset Hills, Mo 63127

Sale or Trade: SB 102 with SB600 — A.C. and D.C. $460.00, SB220 with new 3-500Z's $375.00, SB 630 $69.00, SB610 with extra coils $75.00. HM-15 $12.50. All with manuals. $900.00 takes all. H. Huggins, WA0ZCI, 303-852-3577, Box 661, Monte Vista, CO 81144.

Last three years CQ and QST mags. Perfect condition. Three bucks per year. Postpaid. W2JBL, 123 Davis Ave., Hackensack, NJ 07601

See--try--take home one of the exciting members of the ICOM family of advanced 2 meter fm gear

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IC-22 22 compact channels, 10 popular xtals included, battery saving HI (10 watts)/Lo (1 watt) power option. A super hot MOSFET front end, 5 helical resonators (you can forget about intermod). Soft green back lighting on the front panel and a light to silently let you know you are getting out—and a second light to let you know there is an incoming signal (even though you may have the volume down). Noise canceling dynamic mike, a quick disconnect mobile mount included.

IC-21 24-channel capability, with 7 channels supplied. Its MOSFET front end provides better than .4uv sensitivity at 20 db quieting. 5 helical filters virtually eliminate intermodulation. Built in AC and DC power supplies. Modular construction, of course. Many other features make the IC-21 a great two meter transceiver.

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1108 So. 3rd
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Westcom Engineering
P.O. Box 1020
Escondido, CA 92025

Webster Radio
2602 E. Ashlan
Fresno, CA 93726

TELEVISION

Bill DeWitt, W2DD

(*continued from page 21*)

with methods to convey the same amount of "information" within a narrower bandwidth channel, or alternately, higher resolution pictures within the present eight second frame rate. He indicates that image processing and special encoding techniques may be developed to improve the quality of SSTV pictures which have been degraded by fading, QRM and multipath distortion. He emphasized that these ideas are still in the dream stage. (Note from W2DD: So were the ideas you've been reading about in those **QST** articles not too long ago!) Judging by on-the-air discussions, Dr. Steber's talk on "SSTV Digital Image Processing" and the demonstration of his equipment at the Dayton Hamvention will be an SRO proposition. Don't miss it!

Through the kindess of Dr. Steber and Walt Bieda, W2ELF, **Worldradio News** is able to publish (for the first time in one article) photographs of images representing three different scan conversion systems and a comparison of a slow scan and a scan converted image of the same subject. No direct quality comparison can be made between the first three photos because of variables starting with the subject.

The "Clown" picture shown on a 12-inch monitor represents a fast scan 256 line image derived from a slow scan 128 line picture by digital processing and scan conversion. This picture was supplied by Dr. Steber and is representative of his experiments described in the **QST** articles.

The "Man" picture represents a 525 line fast scan image derived from a slow scan 128 line picture by digital conversion using W2ELF's own version of the WØLMD slow to fast converter.

The "Girl" picture represents a fast scan 525 line image derived from a slow scan 128 line picture using the Hughes Aircraft Company's Model MSC-1 Storage Tube Scan Converter at my home station, W2DD.

It seems to me that the message is clear. Slow to fast scan conversion is on its way, but it will take time. It is definitely not ready for marketing and no one should delay getting into SSTV because of the impending change to scan converted images displayed on a black and white TV set. But, in one way or another, it will in time become an integral part of the SSTV system.

Scan conversion is expensive and complicated in any form. The availability and cost of the ICs required for present and planned designs will probably improve with time. Charge coupled devices offer another avenue of approach to the problem, but they are at present even more expensive than the more conventional ICs specified by WØLMD and WB9LVI. I know of no predicted lowering of storage tube prices, so where do we go from here?

We are fortunate to have capable and dedicated scientists devoted to their chosen task of developing the techniques and equipment needed for the job. For the experimenter-builder there is the challenge of learning and contributing to the development of scan conversion methods that will surely expand the use of SSTV. In the meantime, for those not as deeply involved in computer display or television technology, there remains the opportunity to use and enjoy the capabilities of the system and gear that can be constructed or purchased.

And now for a quick change from the complexities of scan conversion to the simpler things in life!

Want to have fun and build a bar chart? It's easy to make and you'll wonder how you ever got along without one. Get some

¼-inch wide black tape and lay it on white cardboard or white paper along lines spaced ½ inch apart. Make the chart about 10 inches square. You'll have a black line, white line, etc.—four to an inch per photo. Use white paper, not gray or pink, etc. Okay, so now what are you going to do with it?

You can use the bar chart in conjunction with a scope to adjust both focus and "swing" of your camera. If you happen to own a Robot Model 70A or 70B Monitor, just put your bar chart (bars in a vertical position) in front of the object being televised, hook your scope to the "Aux. Video Out" jack on the back of the monitor, and observe the pattern on the scope. Open the lens iris all the way and rotate the focus adjustment.

At needle-sharp focus the scope pattern will be maximum. Now, step the lens down (use higher number), and you can set camera contrast, brightness and lens number for optimum by again observing the scope pattern. Adjust everything for maximum swing as indicated by maximum vertical amplitude on the scope. It is assumed that you will have adjusted the horizontal sweep for a steady display of several "cycles."

You can calibrate your scope for blacks, whites and grays by using a taped gray scale. I used these methods a few years ago in connection with a color slow scan project and they really do work. Incidentally, if you want to create a real "screamer" of an ID chart, use Scotch tape to put your call sign in the middle of a bar chart with the bars in either a vertical or horizontal orientation!

[Send news of your amateur television work to me at 2112 Turk Hill Rd., Fairport, NY 14450.]

•

MM

(*continued from page 34*)

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(1) George Hart, W1NJM, "How it all started — the NTS" **QST** LVIII 8 (August 1974), pages 60-61.

(2) **The Rise and Fall of the NCEF**, historical study available from ARRL headquarters.

(3) Ben Lane, W7FNE, quoted by Bill Yost, WA6PIU, in "Maritime Mobile" column, **The Worldradio News** IV 6 (December 1974), page 3.

(4) Art Smith, W6INI, "Emergency Communications," **The Worldradio News**, IV 3 (September 1974) pages 12-13.

(5) Robert S. Dixon, W8ERD, **Report of Emergency Frequencies Subcommittee** of Emergency Communications Advisory Committee, October 21, 1974.

(6) Robert Dixon, W8ERD, "Actions of the Central Ohio AREC in the Xenia Tornado," **The Worldradio News** IV 4 (September 1974), page 3.

(7) Bill Mann, WA1FCM, "Tornadoes strike ... Hams Help" **QST** LVIII 10 (October 1974), page 55.

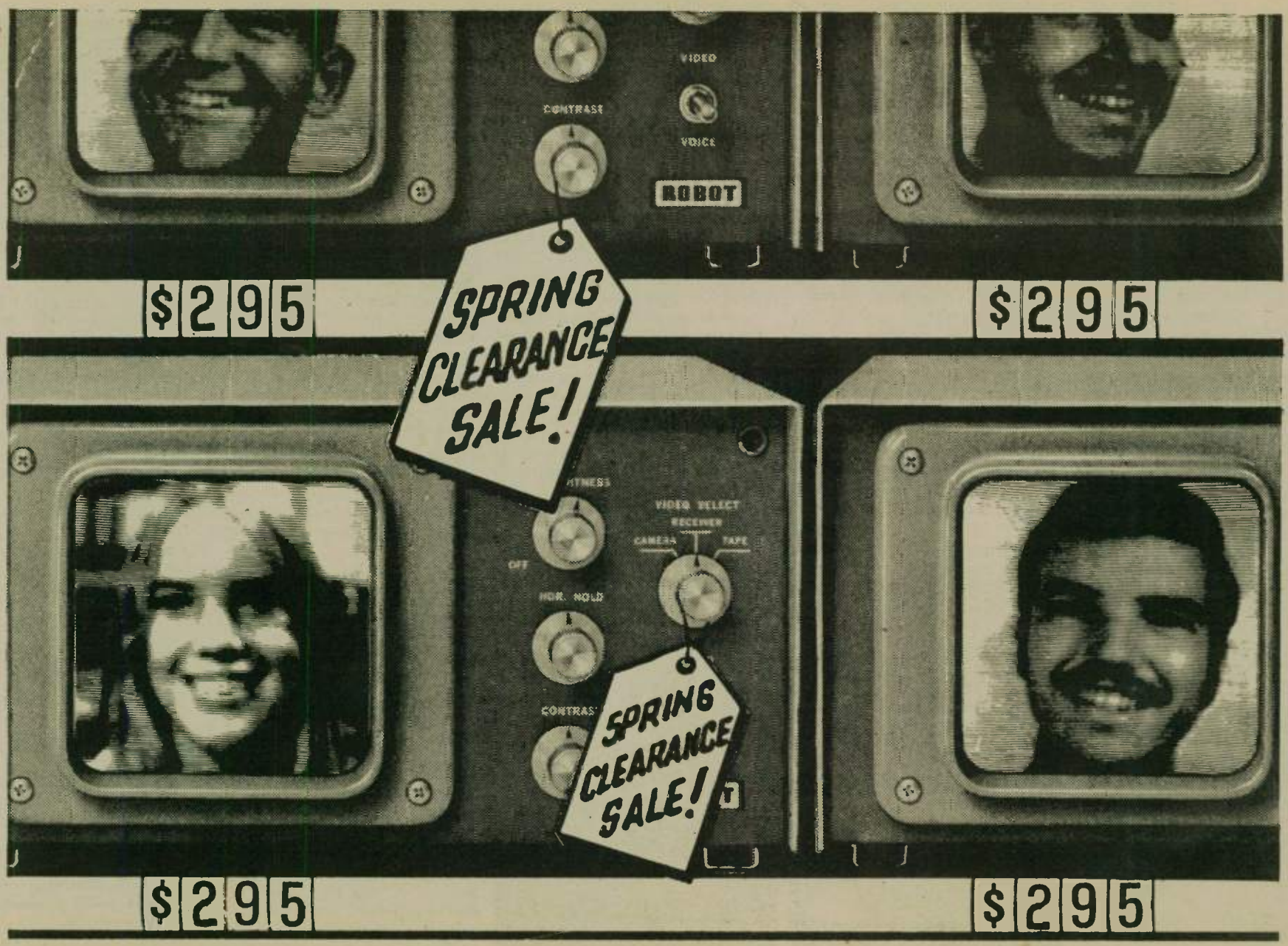
(8) Kurt Meyers, W8IBX, "How does the traffic go?" **HBSN Report**, I 2 (April 1973); see also **QST** LVII 6 (June 1973), page 73.

While a 24-hour emergency calling frequency would certainly be an advantage, it would require extensive organization and cooperation. My first thought would be the ARRL.

Hopefully, we will get some feedback from readers on Chuck's proposal.

I appreciate the letters and comments. Space permitted, we will print some of the letters next issue. In the meantime, may the winds blow favorably for amateur serice.

Bill, WA6PIU/R2



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MARITIME MOBILE

Bill Yost, WA6PIU

(continued from last month)

It would be wise, though, to get the proposed system working on a domestic basis where the traffic support is already in existence before trying to extend it beyond. But until we can supply speed communication anywhere the law allows, we are not doing all we should and we should not be satisfied.

When such an international service is set up, we'll have a strong selling point for persuadint other nations to make third-party-traffic agreements. Remember, it was soon after the Managua earthquake of December, 1972, that Guatemala agreed to let amateurs handle third-party traffic. Neither **QST** nor the W1AW bulletin mentioned any connection with the disaster in neighboring Nicaragua, but the timing does suggest that the success of amateurs in supplying emergency communication when nothing else was available could have been quite persuasive (4).

One problem would arise in connection with extension of the system westward beyond Hawaii. U.S. territory outside the 50 states of the Union is located in region 3, and so is not allowed the use of 7.102 MHz. Also ships in that area may not use the 40-meter amateur band, except within U.S. waters. But then, considering the distances between the Pacific islands, the 20 meter or 15 meter bands might serve more effectively. It is a matter best worked out by amateurs in those areas.

Organization

One of the reasons pointed out by Robert Dixon, W8ERD, for the failure of the NCEF was: "Unlike other ARPSC activities, it provided no real sense of participation, no rewards, no camaraderie (5)."

While it is true that amateurs should take part in public-service activities because they are needed, and not just to get more wallpaper for the shack, it must also be remembered that as volunteers they will not be encouraged to waste their time in activities that seem futile just because somebody dreamed them up, when there are so many more useful and interesting and rewarding activities available in the vast field that their amateur license opens to them.

It would seem that some kind of organization is needed if any monitoring service is to succeed.

The proposed service would in addition need an organization to function as outlined. A manager would be needed to coordinate watches, to see that all six monitoring posts are filled as much of the time as possible, to supply replacement, to keep the whole system running smoothly.

Awards could be made, somewhat like NTS certificates, to stations who have fulfilled an assigned watch for a period of say, three months. And BPL hounds would find that after the system began to operate it would help them add to their totals.

Monitoring stations, hearing the other stations on watch, swapping traffic with them, would soon develop the camaraderie that is found among dedicated traffic handlers, as close a group as to be found anywhere in amateur radio.

Regular reports to the manager would help promote the effort, would enable the manager to coordinate operations more effectively and to take corrective action where needed to keep things running smoothly.

Reports should contain times on watch, stations who used the service, amount of traffic passed, possibly broken down between traffic exchanged between monitoring stations and traffic received from and relayed to other than monitoring stations.

As in the case of traffic nets, a bulletin would be most helpful in promoting the service, perhaps even more than in the case of traffic nets, as many monitoring stations might not often contact some of the others on the air. It could be sent, not only to the monitoring stations, but also to those who use the service with any regularity and thus would serve also as a means of recruiting additional monitoring stations to replace or supplement existing ones.

But Why CW?

Whenever there is an emergency, it seems that everybody gets on 75 meters. That's where most of the nets are, that's the most popular band for medium-distance communication. So why bother with CW – it won't be used anyway! Yet it should be.

When it is used in emergency situations, like it was in the Agnes floods and the Xenia tornadoes, it proves to be the most effective mode of all (6,7), and it's still the way most of the traffic goes (8). For record communications it is unmatched, and for economy of equipment and of spectrum space it has no equal. No emergency communication plan is complete without some provision for it.

The ideal would seem to be to have CW stations with facilities for exchanging traffic with the 75-meter stations, record traffic would be passed to the CW gang who would bat it out on their relatively QRM-free frequencies, often to the tune of one message per minute or better. The phone frequencies would thus be released to do more of what they can do best, like contact with mobiles, patching officials to other officials and such.

There might be an amateur appointed to handle informal traffic, who would set up shop on a frequency well away from the phone net, to whom the NCS could send "helpful Harrys," the "eager Edgars," the "willing Willies." Not being under the pressure that the NCS has to face, he could give them a more civil answer and would have time to explain that with only 1440 minutes a day there just isn't time for 200 amateurs to be phone-patched to their Aunt Susie, even if her phone is working and could help them prepare a formal inquiry message that under the circumstances is the only way to make contact.

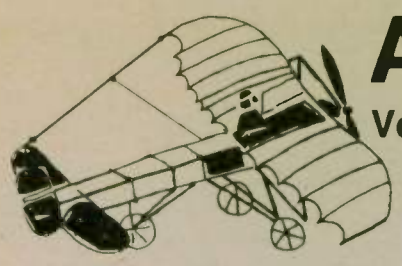
Another reason for setting up a CW circuit is that there are still — believe it or not — CW-only operators. Novices, of course, are limited to CW by FCC rule. But there are amateurs all the way up to extra who don't phone. And there are many more who work phone only occasionally, doing most of their operating on CW.

And so to make most effective use of all amateurs in organizing a communications service, opportunity should be provided for those using any mode to participate.

Often some of the best operators for handling traffic are to be found among the CW gang. To put them on phone would be to fail to make the best use of their capabilities. It is just one more illustration of W8ERD's principle that any time you make special "emergency only" arrangements, you are asking for trouble (5).

They should rather be encouraged to do what they can do best and traffic should go to them: this will reduce the phone-band congestion and CW nets usually have less QRM to contend with.

(please turn to page 34)



AERONAUTICAL MOBILE

Vern Weiss, WA9VLK

Not all the aviation action is found on radios made by Narco and King. In fact, a good amount of juicy radio signals can be found on your faithful old general coverage receiver.

Pilots flying international air routes have come to rely upon a network of short wave radio stations which operate throughout the world. These weather-broadcast stations are known as VOLMET stations. Each station goes on the air at last twice each hour with a five- to ten-minute broadcast of weather conditions, weather forecasts and winds aloft for the specific terminal areas in their meteorological "watch" region. Many of these VOLMET stations share frequencies so the nets' operation can be easily paralleled to an amateur radio net, more specifically, the early morning 75-meter nets.

There are approximately 50 VOLMET stations throughout the world; however, probably the most significant to **Worldradio** readers will be those in North America.

Most easily heard are New York Aeradio, New York; Oakland Aeradio, Oakland, California; Gander Aeradio, Gander Bay, Newfoundland, Canada; and Anchorage Aeradio, Anchorage, Alaska. Both New York and Gander can be found on 3001 kHz, 5652 kHz, 8833 kHz and 13.312 MHz. Oakland and Anchorage can be found on 2980 kHz, 5519 kHz, 8903 kHz and 8828 kHz. In addition, Anchorage operates on 13.344 MHz. These aviation weather broadcasts are made twenty-four glorious hours each day.

In addition, those whose heads remain in the clouds might try bagging their local Civil Air Patrol network. While actual search-and-rescue operations aren't heard daily (thank goodness), some pretty exciting listening can be had from their regular drills and practices.

The CAP is assigned callsigns such as KAG552. More frequently, however, the squadrons use station identifiers such as "Red Fox" and "Box Car." (Take that you C.B.'ers ... LEGAL pseudonyms!). There are seven basic frequencies the CAP airmobile, landmobile, portable and base stations utilize. These frequencies are 2394 kHz, 4325 kHz, 5500 kHz, 143.91 MHz and 148.14 MHz. The remaining two are located adjacent to the Citizens Band; however, I am advised that these two are being phased out due to obvious reasons.

Our United States Air Force still uses the high frequency spaces for some of their ground-to-air and air-to-ground communications. You will hear this traffic on 6740 kHz, 8764 kHz, 8988 kHz, 9020 kHz, 11.200 MHz, 13.201 MHz, and 17.994 MHz. Using the tactical identifier "Looking Glass", the Strategic Air Command can be found on 6762 kHz, 9027 kHz, 11.220 MHz, 13.245 MHz, 14.744 MHz and 17.875 MHz.

During those dramatic sea search and rescue missions you can pick-up all the aeronautical action of the U.S. Coast Guard on 11.200 MHz.

Somewhere lying around here I have some of the published HF frequencies that Air Force 1 uses. I'll let you know those next month.

Not to leave our friends-to-the-North out, the Canadian Air Force uses 6685 to 6695 kHz, 6745 to 6755 kHz and 11.209 MHz.

The transoceanic airlines also use the HF portions, but to list those frequencies would surely mean another paper shortage. In a nutshell, though, that activity can be found over, under, in, around and through the aforementioned frequencies.

Keep in mind, it's all SSB.

The VOLMET stations transmit A3.

If you are fortunate enough to own a general coverage receiver which tunes LF, then of course the FAA weather broadcasts and beacons are yours too. Don't throw that short wave receiver away! It's got a lot going for it.

Bill Overacker, W4TJN/2, a military pilot, makes at least four Atlantic crossings each month. Bill writes that not only does he operate amateur radio during these flights, but in a single crossing works up to 40 stations. He notes that Europeans seem most enthusiastic about working an aeronautical mobile. On these transoceanic flights, W4TJN/2 uses the HF gear aboard for his amateur station and cautions those who desire a QSO with air mobiles of this type. Since the equipment only tunes integral kilocycles, amateurs must zero-beat carefully. In addition, Bill says twenty meters is used almost exclusively with 14.313 MHz and 14.320 MHz the frequencies to watch. Bill also frequently flies into O'Hare and on his IFR departures uses the Peotone VORTAC ... which is 10 miles from Weiss International. Good hearing from you, Bill — write often.

Are there any Knight-Kit Star Roamers out there? Ward Harrison, a Kankakee (Illinois) area pilot and amateur who is nearing his Novice test, desperately needs one for a far-out project involving his flying machine. Write him in care of this columnist. In coming months, should this highly improbable project be a success, we'll write about it in WRN.

An interesting record has been produced entitled "MAYDAY." The 33⅓ RPM disk is a recording of actual radio communications between ATC's and pilots who were in emergency situations. I premiered my copy on a windy, stormy night and needless to say, the effect was chilling. The three "situations" are one pilot being lost and out of fuel, another becoming iced-up, and a third becoming hypoxic. The record is well worth its $6.95 and the producers are planning a second volume. I'm looking forward to that one too. Once again, Sporty's in Batavia, Ohio carries it as well as some selected FBO's throughout the country.

By the time you're reading this you may be packing to fly to Dayton. If you are not planning to operate while enroute, why not do so? Each year, it seems, there is a large number of amateurs who jump into their Cherokees and 172's and speed eastward, westward, south and northward — so let's make a big aeronautical sound this year!

Write. Write. Write. Let's hear from you. Send your aeronews to 376 Tedmark Court, Kankakee, Illionois 60901. Until next month, fly safely ... and above all ... cheaply.

•

THE CODE

A course for family members and friends who don't know the difference between a dot or a dash

Mondays through Fridays

0645 to 0715

Pacific Local Time

3840 kHz

March April May-

September October November

K6RAU

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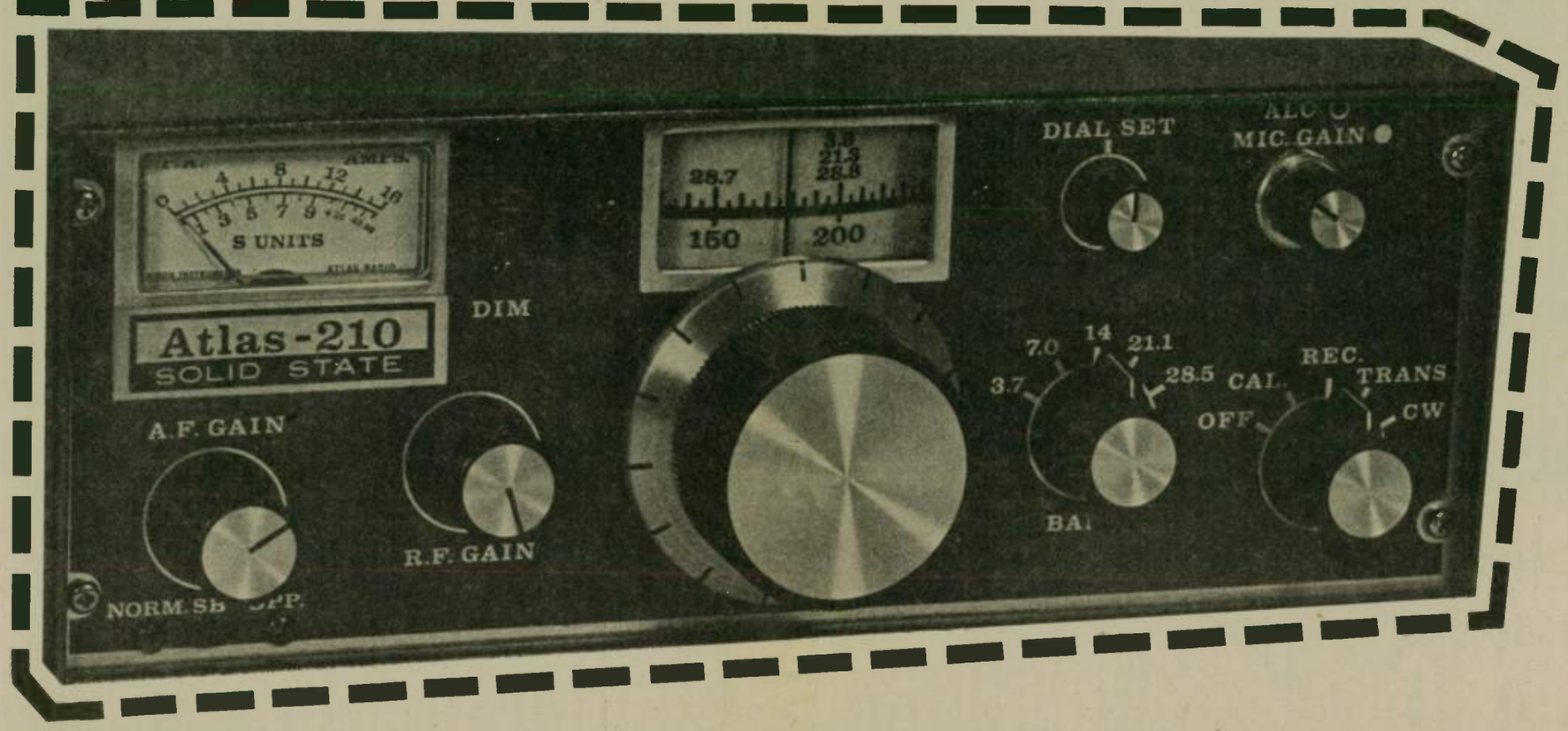

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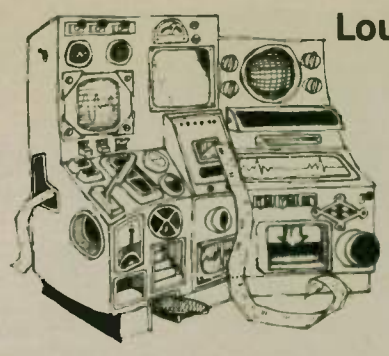

VHF-UHF

Louis Anciaux, WB6NMT

Lucky's freq. After Jerry signed off with WA6LET I listened in to Lucky calling them for several transmissions. I haven't found it yet, but I think we do have Lucky on the W6RDF tape. It's sometimes amazing how history does appear to repeat itself.

Tom Bishop, KØTLM, writes he and MT Air, VHFC, W3CCX/3, in PA had a successful EME QSO on 23 February. This gives Tom state #19 on 432 MHz. His 24' dish does seem to be working at expected efficiency. He has picked up seven new states since Oct. 74 on 432, all via EME with the new dish. His next project is a 144 MHz feed.

Gary Frey, W6KJD, operating K6QEH, also picked up a couple of new ones. He successfully completed QSOs with Dave Olean, K1WHS, in Maine, and Paul Wolte, K8III, in Ohio, on 24 & 25 Feb. Save the local noise problems the eight 16 el KLMs are working very well.

The March 75 issue of QST sports the two-way records in the VHF column. Since it wasn't complete for the EME records, and along with our present subject, the EME records are listed here. In keeping with the original dictates that only non-commercially owned stations may be used for these records, the WA6LET to ZE5JJ, Peter Carey, in Rhodesia is not included. I suspect some of these records will soon fall.

EME Two-Way Records

50 MHz: 5 Sept '72 2,220 KM
K5WVX-WB6NMT

144 MHz: 4 Mar '69 17,790 KM
SM7BAE-ZL1AZR

220 MHz: 16 Mar '70 4,260 KM*
K2CBA-WB6NMT

432 MHz: 30 Mar '74 16,950 KM
VK2AMW-G3LTF

1296 MHz: 27 Apr '69 8,840 KM
WB6IOM-G3LTF

2304 MHz: 22 Nov '72 3,180 KM
K4RJ-W6YFK

*Joe Reisert, W1JAA, pointed out to me that this may be in error by a 100 KM or so. This is the distance indicated in the ARRL chart. When all parties concerned are in agreement, the lower figure will take effect.

Last month I mentioned Walt Bain's QST article on Meteor Scatter. Chuck Dorian, W3JPT, informs me the Feb. 75 issue of the British **Radio Communication** also has a fine article on this subject. Next month I'll go into this subject to help the newcomer to listen in and perhaps get his feet wet.

The number of new stations just appearing on 144 MHz SSB using the new KLM Echo II is something else. Almost nightly a new voice is heard in the SoCal area. Some are running their old FM only amps, and don't sound too bad as long as they keep the level up. If they try talking in a normal voice the class of operation makes for a super-wide and hyper-distorted signal. This should be cleared-up as more of the linearized amps are brought onto the band.

As promised last month, a brief outline of the OSCAR 7 tropo-assist experiments will be covered. There is some rumor that 7 is suffering from some malady. Aside from the same night-time parasitics that have been evident almost from the first, I've yet to get a confirmed report of serious degradation to the Mode B translator. My 432 gear has been idle since the Feb. EME tests and I haven't been on.

Assuming everything is still to be functioning for the next few months some interesting tests may be carried out by those in an area blessed by good tropo-ducts. Typically, a well-equipped station may expect to gain access and hear his signals via OSCAR 7 Mode B up to about 4000 KM. By utilizing the lower tropo ducts to propagate the signals out several hundred or even thousand kilometers and thence to the satellite, quite substantial increases in distance to the satellite may be obtained.

Using this mechanism, shooting out over the Pacific, I have seen paths some 1500 KM greater than the normal 4000 KM. When the tropo season along the US Pacific Coast gets into full swing in May it should be quite feasible to obtain paths of a couple thousand KM greater than normal. With this in mind, Japan becomes accessible to the SoCal area, Hawaii may be able to reach the US East Coast, and perhaps a New Zealander will be heard in the USA.

Other areas of the world also have considerable tropo ducting. By some concerted efforts on the part of amateurs situated at both appropriate places, which will require considerable patience and time, success should be achieved. The most important part is the liaison between stations in various areas who would be interested in conducting such experiments. This column will gladly devote appropriate space to listing information for all those interested. Drop me a line stating your capabilities in both equipment and time and include best directions for possible tropo ducting from your QTH.

A last word of caution, such paths as these will probably exhibit rapid fading and short periods for contacts. It is quite imperative that those involved be aware of others in order most may be obtained. For example, a KH6 station being heard in both W1 and W9 land would certainly be desired by both. However, the W1 is considerably more difficult for the KH6, and common courtesy dictates the W9 to stand-by until QSO is completed. Are there still those kinds of amateurs left?

Over the past few years several regional newsletters for VHF have come and mostly gone. In the early 70's several were devoted to 220 and served to bring that band alive. The Northeast VHF Association Newsletter is in its fourth year, six issues per year and full of bits and pieces about the NE USA. A note to Lew Collins, W1GXT, at 11 Brattle St Apt #19, Arlington, MA 02174 will bring info. Sub price is only $2.

A new attempt at this same type publication is being headed by Dave Smith, WA4WZQ, Rt 1 Box 353, Valdese, NC 28690. Dave's letter indicated it possibly would be more along the line of national coverage rather than restricted to just a local region. He calls it the 'Highbander' and sub price is $3 per year. Another feature might be a listing of needed skeds.

Effective this month the QST VHF column is being written by Bill Tynan, W3KMV. Ed Tilton, who had retired and was recalled upon Bill Smith's resignation, no doubt will keep his pen at hand for a short while. We wish Bill much success in his formidable task.

The West Coast VHF Conference in San Diego, May 2-4, 1975, is really starting to gell nicely. I seem to be spending more time on this project than anything else at present. The mailing of the announcements was completed 15 March and my tongue is still swollen from all those envelopes and stamps. My daughter is to be credited for checking last year's list against the new 'Callbook'. Fully 30% of the list were in need of change. Makes one wonder if just we amateurs are on move, or ?? In less than a week after the mailing about 5% have been returned. Must be this mobile society we keep hearing about. I'll bet it's really due to all the ops moving because of or in order to avoid TVI.

If you didn't receive an announcement, and you usually do, drop me a line pronto. If you are interested in attending, do likewise. The program at the moment is still being put together. We have lined up for the Technical sessions on 3 May: Gary Frey, W6KJD, on transmitter transigator amplifigators; Kelly Scheimberg, W8KPY, on EME Fading (last year it was rabbits, this year ???); from NELC San Diego, Dr. Juergen Richter will speak on tropo ducts, etc. and Jim Heritage will speak on Meteor Scatter using field-aligned techniques. This latter subject is very much like the Walt Bain **QST** article. Jim Heritage was involved in the original work done in this field, using 220 MHz strangely.

Paul Shuch, WA6UAM, may speak on stripline tricks for 1296. Paul's April 1975 **Ham Radio** article is a must for this subject; however, we will need to find a means to limit him to an hour. His half hour talk at last year's Conference lasted about three times that.

The prize list is growing with leaps and bounds. We will have some very excellent goodies this year. Gary Frey, W6KJD, has been doing very well in this department. He also suggested the main prize might be one of my biological burglar alarms I'm overstocked with. If there are any left, might not be a bad idea. We will have a prize or two for the Noise Figure Contest for a change. Likewise, a prize will be awarded for the Sunday Antenna Contest.

From the number of people who have indicated to me verbally they intend to make it, we are expecting the biggest collection of VHFers ever at our 20th annual bash. The list is beginning to read like the Who's Who of VHF, a real opportunity for many to meet the VHFer from afar. Plan to attend now. Hotel reservations must be in by mid-April.

One last note, 15 March was also the 20th anniversary for the San Bernardino Microwave Society. This small group of dedicated high frequency enthusiasts has been meeting every month without fail for the past 20 years. The 2304 beacon on OSCAR 7 is the result of their efforts. Congrats to a superb gang, and may you see another 20 years together.

I appreciate all the words of encouragement. Please keep feeding me info for your column. Drop a line or card to 4519 Narragansett Ave., San Diego, CA 92107.

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QSL Managers: Please send info about who you manage QSLs for to **Worldradio**, 2509 Donner Way, Sacramento, CA 95818.

Minnesota and border area Amateur Radio 2-meter fm repeaters
(As of February 7, 1975). *Indicates not yet operationa.
Decimal of 146.XX MHz is shown for Input-Output frequency.

Aberdeen, S.D.	WØAGS	.34-.94
Ames, IA	WRØACO	.16-.76
Austin, MN	WRØAIB	.13-.73
Baraboo, WI	WR9ABE	.28-.88
Bloomington, MN	WRØADM	*147.69-147.09
Brookings, SD	WRØACP	.34-.94#
Cedar Rapids, IA	WRØAEH	.16-.76!
Dennison, IA	WRØAGC	.28-.88
Detroit Lakes, MN	WRØAGH	.25-.85
Dubuque, IA	WRØABD	.34-.94
Deluth, MN	WRØAIJ	.22-.82
Duluth, MN	WRØAIM	.34-.94
Eau Claire, WI	WR9AFE	.31-.91
East Grand Forks, MN	WRØAGR	.34-.94
Elk River, MN	*	.37-.97
Exeland (Ladysmith), WI	*	.16-.76
Faribault, MN	WRØACN	.19-.79
Fargo, ND	WRØADQ	.16-.76
Fort Dodge, IA	*	.31-.91
Fridley, MN	WRØADT	.07-.67
Golden Valley, MN	WRØAGB	.22-.82
Grafton, ND	*	.16-.76
LaCrosse, WI	WR9AEQ	*.16-.76
Madison, WI		.28-.88!
Madison, WI (PL)	*	.25-.85
Madison, WI	WR8ABT	.16-.76
Mankato, MN	WRØABT	.25-.85
Marshall, MN	WRØADP	.16-.76
Marshalltown, IA	WØDYS	.28-.88
Mason City, IA	WRØAHO	.16-.76
Minneapolis, MN	WRØAFG	147.75-147.15
Mitchell, SD	WRØACB	.34-.94
Petersburgh, ND	*	.22-.82
Platteville, WI	*	.22-.82
Rochester, MN	WRØAFT	.22-.82
Savage, MN	WRØAFO	.28-.88
St. Cloud, MN	*	.34-.94
St. Paul, MN	WRØADW	.16-.76
Sioux City, IA	WRØAEY	.37-.97
Sioux Falls, SD	WRØACK	.16-.76
Sisseton, SD	*	.22-.82
Spencer, IA	WRØACF	.22-.82
Superior, WI	WR9ABG	.16-.76a
Waseca, MN	WRØAGF	.34-.94¢
Waseca, MN	WRØAGG	.94-.46
Washington Co., CD, MN	WRØAII	*147.72-147.12
Wausau, WI	WR9AAB	.22-.82
Watertown, SD	*	.25-.85
Webster, WI	W9DSV	*
Wessington Springs, SD	WRØACQ	.22-.82
Wheeler (Menomonie) WI	*	.01-.61
Willmar, MN	*	.31-.91
Winona, MN	*	.04-.64
White Bear Lake, MN	WRØADY	.25-.85a
Yankton, SD	WRØADG	.25-.85

#Indicates 1800 Hz. tone access
a Indicates autopatch
/ Indicates 2000 Hz. tone access.
¢ Indicates 1650 Hz. tone access.

UHF Repeaters

Madison, WI	WRØATSV	443.75 MHz
Waseca, MN	WRØAIO	222.34-223.94
White Bear Lake, MN	WRØADY	449.80-444.80

VHF

National Calling simplex frequency	146.52-146.52 MHz
Repeater frequency used for simplex (Avoid usage near 146.94 repeaters)	146.94-146.94
Simplex frequency used by WRØAGG Avoid usage near Waseca, MN)	146.45-146.46
Simplex (some Minnesota usage)	146.58-146.58
Simplex (some Minnesota usage)	146.40-146.40

UHF

National Calling simplex frequency	52.525
National Calling simplex frequency	223.500
National Calling simplex frequency	446.000

This list was prepared by the St. Paul Amateur Radio Club, Inc. in a special publication courtesy of the Ground Wave and sent to us by Ralph Andrea, WØFCO. It was prepared from the latest information available. The club cannot guarantee the accuracy of this information and therefore is not liable for potential claims of misrepresentation. A National Repeater Directory is now available from ARRL to members for a 20 cent SASE of at least 6''x9'' from ARRL Headquarters, Newington, CT. 06111. A worldwide Directory ''FM Repeater Altas for 1975'' is available from 73 Inc. Peterborough, NH 03458 or their distributors at $1.50.

The Flyer

Apathy *from page 17*

officers year after year. From a membership of 180, the rolls dropped, attendance dropped, until a point was reached where 10 people showed up for a club meeting featuring a noted national speaker.

The quickest way for something not to happen is for many good people to do nothing. ARRL Directors mailed over 100,000 letters to members literally begging for their help in protecting our 220-225 MHz band from a take-over by the citizens radio service through a new Class E service heavily pushed by the Electronics Industry.

About 15% responded to our plea — the rest — ho hum, it doesn't affect me so why bother.

Now what can we do to reverse this negative situation?

First off, give a commitment to yourself that you will not be one of those who are satisfied with apathy or indifference. If you join an organization, give it your positive support. When help is asked for a project, volunteer to help in even a small way. Keep an open mind when new concepts are proposed and listen to all sides of the question before you reach a conclusion. Keep your elected officials informed of your views. They cannot represent your views if they don't know what they are.

Support your national organization, The American Radio Relay League, with membership. You may not like all that ARRL does, but what other organization is representing you with the FCC and international amateur radio groups? What other organization sends representatives to meet with clubs and other hamfests without charging the group for expenses involved in getting the representative there? What other organization will assist an amateur with technical problems? ARRL is not perfect; only through your interest and active participation can we improve our organization and face the future challenges of change.

Apathy, to the best of my knowledge, has never contributed to progress. Don't let it be said that you, as an active amateur, were apathetic.

11 March 1975

To: Mr. W.W. Eitel
Chairman of the Board of Directors
From: M.C. Towns, Jr. — President
Subject: Project OSCAR Activity Report — 1974

SPACECRAFT ACTIVITY

The hardware activity this year has been carried on at a relatively low level. Module construction has continued and applicable interfacing with Jan King at AMSAT has been conducted by Lance Ginner.

Several boxes of spacecraft-qualified hardware were shipped to AMSAT as well as to the other team members in Germany, Australia and the USA. A Tektronix scope, a Hewlett Packard signal generator and some misc. test equipment was sent to AMSAT for their use.

Lance Ginner, K6GSJ, was able to attend the Experimenters Meeting conducted by AMSAT in Washington, D.C. The AMSAT group is doing such a good job that we have concentrated in areas where they have inadequate time or expertise — so that our total Amateur Radio profile is as high as possible.

Broadly stated, we have worked on the development of the following programs pointed toward the enhancement of Amateur radio in the eyes of our communication peers in our locale, our government, our world environment.

Sister City Program

This moved well during 1974. An Annual International Sister City conference in Phoenix in September was attended and excellent exposure was obtained.

The work done to bring the country of Kenya into the Sister City fold by linking their capital city of Nairobi with Denver, Colorado will reach fruition by mid 1975. This is the first example of the "soft-sell" approach and it appears to be working. At the last Board of Directors meeting, the ARRL authorized the establishment of an executive committee to study and evaluate our sister city program. Carl Smith, WØBWJ, will chair the committee and the first meeting is schedule for 15 March.

RF SIGNAL BANDWIDTH COMPRESSION

A clever technique which can compress the R.F. passband to greater than 2 to 1 and allow full audio signal recovery has been developed locally. Certain modifications to this unique basic capability are now being developed for application to amateur radio use. On-the-air tests are now being conducted.

200MHz BAND UTILIZATION

A program to populate the 220 band was instigated and is still being implemented. At this time, there are about 3 dozen participating stations and three repeaters are operational, on Mt. Umunhum, WR6ABH, one on Montebello Ridge, WR6AEE and one Mt. Vaca, WR6AGO. Radar interference should disappear before mid 1975 as the Mt. Umunhum radar changes frequency.

ADDRESSABLE, POWER-STEPPED BEACON

A program has been initiated to develop a HF beacon system that will transmit a short message every hour at a stepped power level of 100, 10, 1.0 and 0.1 watts. Not only will band openings be indicated but transmitter power required will be indicated. Plans also include a receiver with a known, constant receiver. Using a special radio addressing system such as employed on autostart RTTY, these beacons could be triggered to retransmit a special test message at its stepped power levels to permit meaningful adjustments to be made to the station equipment of the requesting station.

PEOPLE-TO-PEOPLE USE OF THE OSCAR SATELLITES

As the OSCAR Program expands and communication through it becomes progressively simpler, plans to specifically address the use of a portion of its communication bandwidth for people-to-people communication has been started. The last two satellites have outdone themselves in technical performance. The long distance contacts, many international, have clearly shown the potential of OSCAR as a world-wide communication tool. Therefore, we should address the design of an international Amateur Radio Communication Program with at least a portion of the capacity dedicated to the handling of emergency traffic. The charters of both AMSAT and Project OSCAR speak of the possible use of amateur satellites as an emergency communication tool, and we are now fast approaching the time for deeds, not words.

EXPANDED AMATEUR BANDS IN THE 3-30 MHz SPECTRUM

The recent addresses to Amateur Radio Conventions by Messrs. Lee and Walker of the FCC pointed out that, as certain commercial radio services move their traffic to satellite frequencies, spectrum space will become available in the H.F. Bands. The Amateur Radio Service might be assigned one or more additional segments of H.F. spectrum if a worthwhile program for their use can be developed. Perhaps one or more additional bands could be assigned to handle Sister City traffic, phone patches, etc., on a normal basis but could be immediately employed for emergency purposes should disaster strike somewhere. A means of accomplishing this both politically and technically has been started.

DISASTER COMMUNICATIONS

The development of an international emergency aid program through the offices of Noel Eaton, VE3CJ, and IARU. This will be merely an extention of the basic Sister City Communication Program. The time to start political negotiations as to who will do what with whom is not after an earthquake strikes. Note that I underline the word political. Technically, an emergency communication program is a snap for any amateur group worth their salt, but they must get their "political" rigs tuned up to effectively organize and run on emergency power.

•

10th Annual Burbank Hamfest

Held at 2814 Empire Ave., Burbank, CA. Weekend of 17 and 18 May '75. Saturday 10 a.m.-5 p.m. and Sunday from 10 a.m.-4 p.m. Displays, speakers, prizes, technical presentations, free parking, and dinner. Ticket donation $2. Preregister by 17 May. Send to W6LS at above address. Each of the past 9 year's attendance has been about 1,000.

AMSAT-OSCAR 6 and 7 Orbital Data Calendar

In cooperation with AMSAT, Skip Reymann has published an AMSAT-OSCAR orbital data calendar containing all orbits for 1975 for both AMSAT-OSCAR 6 and AMSAT-OSCAR 7. Designed so that it may be hung on the wall, the calendar includes information on the operating schedules and frequencies for both spacecraft, and also the telemetry decoding equations. Also included is step-by-step information on how to determine times of passage of the satellites.

The orbital data calendar is available post-paid for $3.00 U.S. funds or 20 IRC's. Overseas orders will be shipped via airmail. Payment should be made to:

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All excess receipts over costs will be donated to the space program.

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SAROC Hawaian Convention Holiday package on Western Airlines from Oakland and Los Angeles, CA. (Portland and Seattle on another airline.) Depart July 17, 1975 and return July 24, 1975. Includes: roundtrip airfare; meals aloft; movie/stereo-headset; transportation in Honolulu to and from airport and hotel; seven nights deluxe room at the Sheraton-Waikiki Hotel; bellman tip; room tax; baggage handling; SAROC Advance Registration; Admission to exhibits and technical sessions; SAROC cocktail party Friday evening assisted by Ham Radio Magazine, T.P.L. Communications and TRI-EX Tower Corp.; SAROC Banquet Dinner and program on Saturday. Then you're on your own until departure time.

Price per person double occupancy in hotel room: $435.00
Price per person triple occupancy in hotel room: $400.00

A limited number of airline and hotel reservations have been blocked. A $100.00 deposit per person received before May 17th will be accepted for space available. Full payment must be received by June 1. Tickets will be mailed after June 1. Requests for full refund will be accepted if received before May 17; afterwards refund will be made in accordance with Civil Aeronautics Board and Hotel regulations, less a $5.00 per person service charge.

Additional SAROC Hawaian Convention Holiday packages available from mid-west and east coast cities. Sample individual mid-week tour-bussing fares from a few selected cities:

Baltimore	$612.24	Minneapolis/St. Paul	$552.27
Boston	$622.46	New York City/Hartford, CT	$622.10
Chicago/Milwaukee	$558.29	Dallas/Houston	$544.00*
Miami	$638.68#	Philadelphia	$621.89

All fares are per person double occupancy in hotel room. Triple occupancy in hotel room is $35.00 less per person. *Denotes via Delta Airlines; #Denotes via National Airlines; others via United Airlines. Actual fare charged will be that in effect at time of travel. If you live in or near a large city east of Denver, CO and have a regularly scheduled airline with service to Los Angeles or San Francisco, we may be able to work up a package for you too. **Direct all inquiries to: SAROC, P.O. Box 945, Boulder City, Nevada, 89005. Get your reservation in soon.**

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4th. ed. Correct beam dimensions 6-40 m. Are 40 m. beams worth the effort? Construction triband & compact beams; the truth about height; feed/matching systems, baluns, test instr. *Beam Antenna Handbook, 200 pp, 122 illus., $4.95.*

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Design/application data for long tube life, maximum circuit stability & peak efficiency—HF thru VHF. Neutralization, harmonics, parasitics, cooling, ratings, *Care & Feeding of Power Grid Tubes, 158 pp, with plastic calculator, $3.95.*

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DANA RADIO

2704 - 16th Street Sacramento, CA 95818

CITY OF ENGLEWOOD
Office of the Mayor

WHEREAS an annual test of emergency communications from field locations will be conducted June 28 and 29, 1975; and

WHEREAS this annual test includes field day exercises organized by the American Radio Relay League, Inc., and

WHEREAS the Englewood Amateur Radio Association, Inc. has brought honor to its members and to the City of Englewood by placing first in its transmitter category throughout the United States and Canada during the field day exercises in eleven of the last twelve years, and

WHEREAS Englewood's results in the 1972 field day exercises surpassed all previous records in its transmitter category since the start of field day activities in 1933;

NOW THEREFORE I, Walter S. Taylor, Mayor of the City of Englewood, do hereby proclaim the week of June 22 to June 28, 1975

ENGLEWOOD AMATEUR RADIO ASSOCIATION WEEK

and I encourage the recognition of the essential emergency services, as well as the year round services, which are provided by amateur radio operators in Englewood. In witness whereof I have hereunto set my hand and caused the seal of the City of Englewood to be affixed this 6th day of May, 1975.

Walter S. Taylor, Mayor

TRAFFIC

Paul Gagnon, WA6DEI

the standard Navy MARS format for sending on Navy MARS circuits.

R Ø5Ø123Z MAR 75
FM NØSAM
TO MSGT Robert Z Smith USMC
555 66 789Ø
Seventh RRFS Box 2Ø3
FPO San Francisco Calif 9663Ø
BT
UNCLAS
1. Nr 73 W1ABC ARL 4 Boston Mass Ø123Z Mar 75
2. Greetings on your birthday and best wishes for many more to come.
3. Love
4. Mom and Dad sends

Note that the ARL text has been converted to its written form and that the original amateur heading has been included for reference. NØSAM is the MARS call of the refiling station.

Now let's refile the message from amateur to Army or Air Force MARS.

Nr 88 R Ø5Ø123Z MAR 75
FM W1ABC Boston Mass Ø123Z Mar 5
TO MSGT Robert Z Smith USMC
555 66 789Ø
Seventh RRFS Box 2Ø3
FPO San Francisco Calif 96630
GR ARL 8
BT
ARL Forty Six Love SGD Mom and Dad

Note that the group count includes the signature. The Army, Navy-Marcorps and Air Force MARS are supposed to be a joint operation and the same, but as you can see there is considerable difference.

Remember, traffic to APO/FPO 96601 and 96602 is for mobile forces such as ships and cannot be relayed on MARS circuits unless the addressee is known to be ashore. The message must then be routed with the APO/FPO number of that fixed location. See last month's article for more information on this.

Addresses of MARS traffic must include the addressee's rank, social security number, unit to which assigned and a complete address including zip.

A filing time must appear on the message. Messages originated by an amateur station will not be accepted for crossfile into the MARS system more than 48 hours after the original filing time.

Hambits

1. The Virginia Novice Training Net meets on 3713 at 1830. Route manager is Mark Huff, WA4DHY.

2. The Virginia Sideband Net meets on 3947 at 1800 and 2200 local Virginia time. Would you believe they have over 280 members on their roster!

3. The Mexican Emergency Net meets on 3670 in the evenings. If you are in the RN6 or TWN areas this may be where that SSB QRM is coming from.

4. The Southern California Net has moved its frequency to 3598. This net meets each day at 1830.

5. Don't argue with the Net Control Station over the net frequency. Remember, when the NCS sets the frequency, that is the net frequency. Don't waste time arguing over the frequency; you can bet he moved off a kHz or so to avoid QRM.

6. When reporting traffic handled on a net session your net control, count only the traffic that is handled on the net during the net session. Traffic handled before the net or after the net did not get passed on the net so shouldn't be in the totals.

7. Another reminder; when NCS send you off frequency to get traffic, take only the traffic he sent you to take. He probably has another station ready to clear the traffic you may try to take and not be in as good a position to deliver or relay.

8. Do you know what the abbreviation "WB" means? It means "word before" when asking for fills on a message. If you want to know what are "words between" use "BN."

Set

The Simulated Emergency Test is behind us for another year but I am sure everyone has learned that they have many weaknesses as far as their local emergency organization is concerned.

There is no such thing as being "too" prepared. There have been many comments over the years regarding the role that the National Traffic System plays in the SET each year. Most people feel that the idea is fine but in actuality, it is the same old operators, year after year, handling piles of traffic. What we need is new operators handling the piles of traffic each year. Regardless of the training gained the public relations that resulted from direct contact with emergency and governmental organizations was worth it all.

Bill Smith, W7GHT, put it this way: "The utility of Amateur Radio, thusly demonstrated, justifies allocation of the frequency and space in our favor. This often is reiterated and favorably reviewed by those in authority, both from this and from all hemispheres. Often we are reminded that our existance as amateurs is not a right, but a privilege; and this privilege is earned. Our net and its membership is a contribution towards that earning. We endeavor constantly to better our operating ability and our equipment (fixed and emergency).

Our contribution admittedly is motivated by personal pride; but goals, consciously or unconsciously set, once achieved add minutely to an immeasurable wealth of experience (and equipment) most vital to our nation or locality in times of distress. And so we have SET and each of us pledge to be further trained thereby, thus again to gain experience towards one of our personal goals or missions." Sums it up rather nicely, doesn't he? How about your part?

Do you have an idea of how the SET can be more effectively run as far as providing training for traffic systems and operators?

Put me on the mailing list for your Net Bulletins. 73

MM

(continued from page 28)

In emergencies, phone nets seem to attract participation, while CW nets tend to chase QRM away. When a few hotshot operators fire up on a frequency, casual CW operators move elsewhere.

A net passing traffic at 20 WPM or higher, with liberal use of Q signals and other abbreviations familiar to regular traffic handlers, but Greek to others discourages non-traffic-handlers from breaking in — they go to the phone band instead. So the NCS usually has only his old reliables to deal with and the years of passing routine traffic really pays off when there is a big load of emergency traffic to pass. While the phone net is struggling with people who call in, "Is there anything I can do to help?" the CW net has cleared its hook and is waiting for more.

Having a calling frequency available at times when nets are not in operations would make it possible for stations with emergency traffic to pass it by CW at any time. Most emergencies are local affairs and do not generate enough traffic to warrant calling out the upper NTS nets or the TCC. But there could well be a message or two that must go through, even in a local emergency and the phone-band QRM might make it difficult to pass by phone, so the proposed system would be immediately available.

And in the big emergency, it's NTS managers who are responsible for setting up the extra sessions. In emergencies we use what is available: there's nothing wrong with making a land-line phone call. But any emergency system worthy of the name should not depend on commercial circuits — it's supposed to replace them when they are not working. So a calling channel like the one proposed here would have a definite place in a communication plan.

Operators

Who would man the monitoring stations?

Our amateur ranks now include a sizeable number of retired persons, housewives, shut-ins, night workers. Out of a quarter-million amateurs it should be possible to recruit enough CW traffic people to keep six stations monitoring 7.102 MHz more or less continuously.

Conclusion

A system of CW stations monitoring a calling frequency of 7.102 MHz has been suggested, and this would seem to be a possible answer to the demand of Art Smith, W6INI (9), for a full-time nationwide emergency communication system capable of getting a message to its destination and an answer back in hours, hopefully even in minutes. It is proposed to keep this system working full-time, not just for emergencies.

Bob Dixon, W8ERD, has shown the folly of "emergency only" frequencies in the amateur service (5): the best "emergency only" frequencies in the amateur service use emergency communications as routine. That's why 500 kHz is successful in the Maritime Mobile Service — it's a calling frequency for any purpose, not just for emergencies.

The proposed system would seem to offer amateur radio an excellent opportunity to improve its public service capability. It would not replace the National Traffic System or the independent nets, but would supplement them. As a training medium for operators, the NTS is about as good a system as it can be, offers opportunities for training in all modes and at all levels of proficiency.

As a traffic network it works efficiently, reliably and does a good job of public service. Its chief limitations are its limited capacity and its once-a-day cycle. The new Daytime NTS helps somewhat, but is not fully operational as yet. If the proposed system could be put into operation, anybody anywhere who could work 40 CW could put a message into the system and know that it would reach its destination in the shortest possible time.

And isn't that what traffic handling is all about?

(please turn to page 26)

CONLEY RADIO SUPPLY

Deluxe Mobile/Base Station FT-101B

FT-101B $649.00

- Solid State 160 thru 10 Meter Transceiver

This deluxe rig is the descendent of the world famous FT-101 transceiver. Except for the driver and final amplifier stages, the FT-101B features all solid state circuitry, built on reliable "computer type", plug-in modules. The FT-101B is contained in a compact, thirty pound (15 Kg.) package designed to go anywhere. All that is needed for instant "on the air" operation from 160 thru 10M is either 12 VDC or 100-234 VAC and an antenna. The FT-101B is truly quality radio from the world's leader in amateur radio communications.

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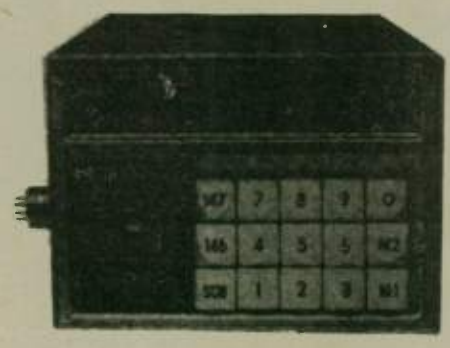

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- Scan . . . active or inactive frequencies . . . adjustable scan rates.
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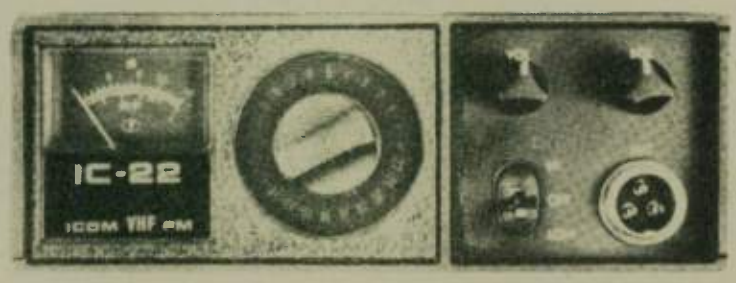
★ Icom IC 21A - $449.95 ★ Icom DV-21 - $389.00

GRAB HOLD Of... the IC-22



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• TEN crystals . . . (now that alone is going to save you about $40.00) . . . easy to hold noise canceling dynamic mike . . . a quick disconnect mobile mount . . . battery saving HI (10 watts)/Lo (1 watt) power option. • Your IC-22 will have a receiver that just won't quit with a super hot mosfet front end, 5 helical resonators (you can forget about inter-mod), and a large speaker that will punch out plenty of audio for the car. • You'll also be on frequency with trimmer caps on both trans. and rcv. on all 22 channels . . . with a discriminator output jack in the back to let you get on and stay on freq. • PLUS the '22' is one good lookin' compact rig that you will be proud to put in your car — (the XYL won't mind it either) — with soft green back lighting on the front panel and a light to silently let you know you are getting out . . . and a second light to let you know there is an incoming signal (even though you may have the volume down). • There is much, much more to tell you about the IC-22, but suffice it to say, the IC-22, with all of its unique features and performance record at $248.00 has got to be one of the best all-around values available on two meters today!

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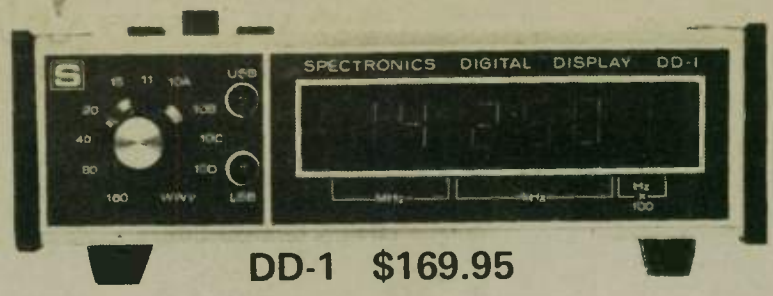
FOR FT-101, FT-101B, FT-401, FT-560, FT-570



DD-1 $169.95

RON CONLEY K7LTV

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101 SOUTH 31st STREET BILLINGS, MONTANA 59101

CLUBS

While a lot of clubs sit around and complain "there's nothing to do," we present the below from a club bulletin. We can't think of anything we've heard of lately that is any more wonderful than what these folks are doing.

CPARA adopts neurological center

In response to the letter mailed to CPARA members with the February ASCRA newsletter sufficient interest in adopting the Harry S. Truman Children's Neurological Center for licensing classes has resulted in establishing the project. CPARA President Dave Bland, KØLCB, has appointed Dr. Eugene Petersen, W6OAC, as the project coordinator. The project will not be an easy one as most of the students cannot speak and have difficulty in communicating among themselves; hence, their code abilities may prove to be an asset for uses other than Amateur Radio. Pete indicates that additional association members will be needed to provide periodic assistance to the students. Those who wish to volunteer to serve occasionally in the project should contact the coordinator. The value of this project cannot be over-emphasized. One needs only to sense the utility and usefulness of Amateur Radio to these individuals to know of its importance.

Pretty terrific, wouldn't you agree?

Before we get into other items we'd like to remind the clubs of the **Worldradio/Callbook** joint project. If your club sends **Worldradio** 12 self-addressed, stamped envelopes, we will send you, each month, a gummed label with the name and address of each newly licensed amateur in the ZIP code (first three numbers) of your club's coverage. The idea is that you will use the label to send the new amateur an invitation to your club or mail him a copy of your club bulletin. At the end of a year you will be billed three cents for each label. (This is the actual cost; we do this as a service.)

You may wish to inquire about the semi-generous commission we offer your club on subscriptions to this newspaper taken in by your club. Also, if you send us your club roster, we'll send everybody in your club one free sample copy of this newspaper. Can hardly beat that, can you?

Also, we'd like to thank the many new clubs who have added us to their club mailing lists. We'd like to get them all. Don't hide your light under a bushel. Let others know what your club is doing; maybe they could use some good ideas.

In this day of 60 cents a gallon gas, 75 cents a loaf bread and $10 or so 6146Bs, who isn't interested in saving a buck?

If you are the average editor of the average radio club publication, you are faced with a budget which in today's economy is simply inadequate. The biggest cost right off the top is the mailing. It doesn't take an electronic calculator to tell you that a club of say 75 members, plus a few swaps and freebies will net Uncle Sam about $8 per month. Multiply this by 12 and you wind up with a postage bill just under $100 per year.

For the average club mailing under 200 bulletins, first class is the only way they can go. Unless they can get a small boy with a wagon to deliver them, the postage bill will be $1.28 per member per year. Assuming once again that this average club assesses its members $5 annually, this leaves us $3.72 per member in the treasury.

If your club happens to be one of the few mailing over 200 bulletins per month, a substantial savings can be realized by mailing Bulk Rate, third class. Or, if you can qualify for non-profit organization status, a further reduction will cut your postage to one-fifth of first class. The rub in either case is that the bulletins must be sorted by zip code and tied in bundles and taken to the post office. Also, a yearly fee of $30 must be paid.

On the surface, going back to our hypothetical club of 75, you say with the first class postage costing $1.28 per year, we have $3.72 per member to play with . . . but, in reality, the amount must also cover the typing, printing, folding, stapling, addressing, etc. Most of you old-time editors have been through this, so just bear with me as we outline a few suggestions for our newer members.

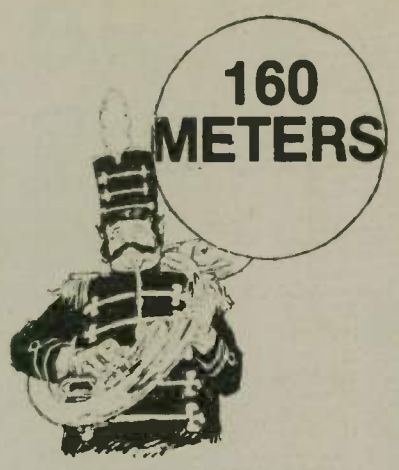
In almost every club there is a person with nominal typing ability, with access to an electric typewriter (or a good manual) who can set up a clean master, a stencil or offset copy. This is the first step and probably the part of the operation which will contribute most to the quality and good looks of your final product.

Next we need a reliable method of reproduction. In the case of extremely small clubs, a good Zerox copier will do very nicely. If you have available a mimeograph, spirit duplicator or ditto machine, nice copy can be produced, providing care is taken . . . in preparing the stencil or master . . . keeping the machine clean . . . using the proper paper. In some cases, even a teletype machine can be used for a limited circulation.

You say, "Great, all I need is a good typewriter, and a machine to reproduce it on." . . . Hold it! I didn't say it that way, I said that these are the elements needed, not that you should do all the work. In order to accomplish the above, you'll need help, lots of it. from your club members.

To do a good job, you must have the time to do your part of it, namely writing, gathering news items and editing. Scout around for a typist who is not only capable, but willing to burn the midnight oil when necessary to get the bulletin out. Then find someone who will take the responsibility for reproducing it, regardless of the process involved. Next, get one or two

(*continued on column 5*)



Stu Perry, W1BB

One thing about "Good Old 160" is the friendships developed. The camaraderie among the 160 gang is like no other band. This is part of the real enjoyment of operating on "Top Band".

John Mayes, W6BYB, portable up in VE1 land, shows the spirit of the 160 man. He put up his new antenna in a snow storm!!, including twelve 135-ft. radials. His first contact was a 599 with a KV4. He's been knocking of the DX with YV5, EI9, G3, OK, OH, PAØ, and more to his credit. He sez, "having a ball".

Is a lot of power needed on 160? We'll let Peter Lowth, ZE7JX, answer that one. He made nearly 50 USA QSOs from Rhodesia with ten watts!

Brice Anderson, W9PNE, has nine countries, three continents and 49 states with 7½ watts. His antenna is a 456 ft. flat top with a 40 ft. vertical feed section in the middle.

Bill Turney, WAØRFF, has come up with a 12 ft. section with loading coil that goes on top of a 20 to 70 ft. vertical ungrounded mast (supported with nylon guys). Put you on 160 in a very small space. Cost is $34.50. Write to him for info.

Larry Briggs, W3MSN, with a dipole seven feet off the ground and running through the bushes, has worked North Carolina and New York from Maryland.

Dave Wilson, G3SZA, made WAC. That's quite an accomplishment when you consider that up to September '74 the number of 160 WACs was 55. Latest one was Dale Hoppe, K6UA. Japan has four of those 55.

Dr. Les Radnay, W1PL, needs only KH6 to make his WAC; has worked a station, but so far no all-important QSL has arrived.

The only YL we know of on 160 is Helena de Kertesz, YV5CKR, (correct us if we're wrong) and she is a top-notch CW op. During her trip to the USA she stopped in and visited with W1PL and this writer.

Speaking about writing, as you read this I am on a South Pacific trip. If you have any hot 160 news send it to **Worldradio** at 2509 Donner Way, Sacramento, CA 95818. You'll be pleasantly surprised how quickly items get into print in this newspaper.

Earl Cunningham, W5RTQ, did some interesting computer work and came up with the "Top-Ten" Distance Records on 160. (Figures given are in miles.) PY2FUS/JA2GQO, 11,621; W1BB/VK6HD, 11,609; PY1RO/JA2GQO, 11,601; W1HGT/VK6HD, 11,579; JA1MCU/PY1RO, 11, 532; ZL1AH/G6GM, 11,527; G6VJ/ZL3AH, 11,467; KV4FZ/VK6HD, 11,463; VP8KF/JA1MCU, 11,011; JA7AO/PY1RO, 11, 247; and No. 11, W5RTQ/VK6NK, 10, 577.

G. Homer, G4BXT, made his first transatlantic crossing. He had been trying for a year and a half with a 1/4 wave horizontal wire. He switched to a 35 ft. vertical and got a 559. Pretty good for 10 watts.

Harry McQuillan, EP2BQ, tells about a surprise. He worked KZ5AA and YV5CKR on what sounded like a dead band! Which brings up the old adage, if everyone listens and nobody calls . . .

So, with that we'll start listening for your input to this column.

•

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(*continued from column 2*)

members who will keep your mailing list up-to-date, make labels or address envelopes and do the mailing each month.

If the reproduction cannot be done within the club membership, seek the advice and help of your local jiffy printer, who in most cases can do a nice job (from good copy) for a nominal figure. Sometimes, this is the best way, as it removes the burden of maintaining duplicating equipment.

In summing up, the most important thing in getting bulletins reproduced nicely, on time, and with minimum of expense, is co-operation. The bulletin should involve at least four, five or more of your members. You'll find you'll have a much better bulletin and no one will have "bags" under his eyes from running a "one-man show." "Enough said."

[ARNS Bulletin)
Carl Zaruba, WA9NRI
Editor, York Radio Club
Circuit Board

NOVICE

This new column in Worldradio will concern itself with two topics: Novice on-the-air activity, and help in getting your higher grade license.

Many Novices build their CW speed up by using it on-the-air. Others build up their speed by using one of the commercially produced recorded CW teaching courses.

The CW courses have some advantages over working on-the-air: no QRM, no hunting up and down the band for someone worth copying, not worrying about band conditions, etc. Just plop the record on the turntable and you can grab a quick 15 minutes of practice or so.

Another advantage of the courses is you know exactly what speed you are copying, and by checking your copy against the answer sheet you know exactly how well you are doing.

And there is another help they offer. You can dub the records to a cassette tape and listen to CW when you are driving to and from work. Put that commuting time to work. If you ride the mass transit, just take your recorder and a little earphone and you are in business.

Speaking of earphones, copy your code with earphones on, for that is the way the test is given at the FCC.

We shall review the various code courses. None were sent in for review. All were purchased.

International Code Training System, Howard Sams Publications, now selling for $12.95. This course features a cassette tape going from 4 wpm to 22 wpm. This is a programmed technique course with a 96 page instruction book. The book features diagrams where the student follows the elements in the character moving his finger along the chart; for example, if he hears a dit he moves to E, if a dah follows he moves to A, if a dah follows he goes to W. The student learns the letters in this fashion. Verdict: not recommended. The code should be learned completely by sound. We believe any visual gimmicks put in between are unnecessary and harmful. However, if possibly someone had tried every other method and could not learn the letters this course may be helpful, possibly.

Rider Sound-n-Sight code course, Hayden Book Company. Comes in two series: beginner to 8 wpm; and advanced, 9 to 20 wpm; about $11 each. Course starts off with flash cards. On one side of each card is the printed Morse Code character; on the other side is the letter of the alphabet. A person is to learn the code by looking quickly at the card and turning it over to see if they guessed right. Course is heavily programmed with student recording number of errors in the instruction book. The CW starts out on the records with the student writing down the Morse characters first rather than the letters of the alphabet. This is to see if student has the sounds learned properly. The manufacturers claim the course was very successful in teaching radio operators in the U.S. Navy. The course then moves into copying the different speeds. One keeps track of mistakes in the book and only progresses after 95 per cent correct copy is made at each speed. Using these techniques they claim 13 hours work to 5 wpm, 20 hours work for 13 wpm, 40 hours for 20 wpm.

This is a good course except for some glaring errors. They include all the punctuation marks that are NOT on the examinations and leave off one that is, the slant bar. Also, the five letter code groups are all bunched so that it's five letters, then five or ten numbers, then five letters, then five or ten punctuation marks. Better they should have mixed the numbers, letters and punctuation. We also disagree with the idea that with five per cent mistakes one should move to the next higher speed. The FCC tests are "one minute perfect" and that is what the standard should be in the courses. Five per cent mistakes just won't make it. However, on balance we could recommend this course.

AMECO Code Course, AMECO Publishing Corp. At $3.95 each, reasonable enough. There are six different LP records in the series going from start to 24 wpm. Well designed with what you need. Code groups have numbers, letters and punctuation all mixed in for best practice. There are straight text practice runs similar to FCC tests. Good courses, only thing wrong is the note is not as clean as it could be, some distortion. However, this may be helpful just like swinging with a heavy bat before going up to the plate with a lighter one. Verdict: Recommended.

Word Method, Epsilon Records. New method in which the code is sent at 13 wpm right away. Letters are introduced and words are quickly made, and then sentences. All straight text, no cipher groups. Available on three LP records for $9.95 or cassette tape for $10.95. The manufacturer calls the course "revolutionary" and it is. Instructor talks to you, gives you the answers, etc. With this course anyone could learn the code by osmosis. This one is the favorite of just about everyone who has heard it. Alas, nothing is perfect. We would prefer he had a little less talk and more practice, but as good as this course is, that's almost nitpicking. Verdict: Highly recommended. This course gets highest marks not only for starting at 13 and method of instruction, but also because when played at 45 rpm (17.6 wpm) and 78 rpm (30.6 wpm) the quality of the tone is better than any of the others.

Archer International Morse Code Beginners Course, Radio Shack. From start to 15 wpm on one LP record. Increase in speed comes from playing at different speeds. Verdict: at $5.50, overpriced for what you get, very little practice material. Pass it up.

However, we must mention that, in our opinion, the finest textbook for going from Novice to General is put out by Radio Shack. Even with the title "From 5 Watts to 1,000 Watts," for $2.25 this book is real spectacular. It's in programmed learning format and very, very well done. Without a doubt the best on the market. A couple of bad mistakes in it (who's perfect) such as "a Novice license is $9," and "a Technician may operate a Novice station," but on balance an exceptionally well done book. A real surprise.

Now we'll look at the CW on tape.

Codemaster, Pickering Co. Three tapes at $7.95 each. The first is beginner to 9 wpm. Intermediate, half an hour at 11 wpm-one hour at 14 wpm-half an hour at 17 wpm. Advanced, one hour at 20 wpm-half an hour at 25 wpm-half an hour at 30 wpm. These are reel-to-reel at 3-3/4 ips. Also on cassette. Very well done. Good instruction for the beginner. Good tone. Only objection could be that increases in speed should be at one wpm increments. It is far easier to climb up attacking the code at a one wpm increase at a time rather than two wpm. Verdict: Highly recommended.

Instructograph, Instructograph Co. The favorite of the "old-timers." If I had a dollar for every amateur who had got his license from using an Instructograph I wouldn't be sitting here writing this column but would be in Tahiti or the south of France. Uses punched paper tape. The tone of this machine (that you can either buy or rent) is just like that at the FCC office. They also use the punched paper tape. Speed can be varied from 4 to 40 wpm. Verdict: Highly recommended.

Now we come to the last recorded CW course and the most difficult. Get the ARRL publication **Learning the Radiotelegraph Code.** Record the practice sessions (and especially page 19) on your own tape recorder. Copy your own code back. Yes, that's what your sending sounds like to other people. Dreadful isn't it. You will be surprised to hear how different it sounds from the great code you hear on sidetone. Copy your own sending.

This is the method used at radio operator school in the US Army Special Forces (Green Berets). They send five letter groups; some are recorded and played back to them. You don't graduate until you have sent 20 wpm on a straight key and then copied your own back. Many who can copy 20 perfectly off of a tape find they have a hard time copying 10 wpm of their own sending.

Send in what you are doing to this column and include a picture of your station.

WB6QHL
K

TEACHER

What are we doing wrong? Of the people who get a Novice license, only about 25 per cent move up to a higher grade license. The figures show that 20 per cent go to General and five per cent go to Technician.

It appears that 75 per cent of our efforts have gone to waste. The question arises: Are licensing courses just that, or should they be an "orientation" into Amateur Radio? Have we done the job that should be done in telling the prospective amateurs just what a fantastic thing Amateur Radio is? Have we properly told about the many avenues of challenge and inspired the prospect into knowing about the many rewards one can get from this wonderful avocation?

We have heard estimates that half of the Novice licensees never even get on the air or just go on once or twice. Is there any follow-up program after the license is received?

Here's a good question: Just how many radio clubs that you know of have any program set up for inviting the newly licensed to their meetings?

The instructors of Amateur Radio should be at the forefront of encouraging the clubs to make every effort to welcome the newly licensed amateurs into the mainstream of activity.

Can we afford to get people their licenses and then just set them adrift into the complexities? Should we see to it that an amateur visits the home of the newly licensed and checks over his/her station to see that it is operating properly?

Many Novices purchase a piece of equipment and have no way of knowing if it is working properly or not. They could have a real dead-duck receiver or a transmitter that barely gets a watt into the air. We know of one Novice who had mislabeled his feedlines and always had the wrong antenna for the band he wanted to go on. He wondered why he didn't make many contacts.

Should every Novice get a visit from the instructor or his nominee to check SWR and/or power output (which would have caught the problem named above), listen to the receiver, etc?

One of the purposes of this "Teacher" column is for the instructors to exchange the methods they have used. We invite your input into this "idea exchange."

Teaching CW — It may be that the usual ways of teaching CW are doing the student a disservice. Most instructors (and recorded code courses) start out teaching something like this: E-I-S-H-5, T-M-O-Ø; so what we are doing is having the student "count" how many dits or dats they are hearing. A bad habit is introduced right at the beginning, and it is one that will "hang him up" as he progresses in speed. It may be we need some changes in our way of doing things.

Possibly the best method would be to introduce the characters in a totally random order and not in (for example) the A-U-V string. Give them three letters at the beginning so as they can make words as soon as possible. RAT-TAR-ART is a good place to start.

It could even be a mistake that we always start out with the shortest letters first and work our way up to the longer characters. Why not start with the long ones first and work our way down? Get the students to hear the total sound as soon as possible, not counting elements within the character.

The idea of waiting until all the letters are learned to teach numbers and punctuation is not a good one. If you introduce all the numbers at once we're back into the "counting" bit rather than hearing the sound. Drop them in early and make little sentences with numbers and punctuation as soon as possible. Use the dictionary and get a string of words to use as soon as four or five letters are in the student's code vocabulary. (The cat ate the hat. He had one hat, etc.)

Remember, the way you introduce Amateur Radio to your students will have a profound effect on their amateur career. Which direction will you take them? Will you tell them of the great fraternal spirit, the public service aspects, the ability to communicate with all peoples of the world, the opportunity to be of service in an emergency situation? Let's inspire these students.

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Bumper Stickers reading "Ham Radio Keeps You In Touch With The World". Mail a business size self-addressed-stamped envelope and 50¢ per sticker to WAØUTT, 2810 Euclid, Wichita KS 67217. Club and dealer rates available.

ANTENNAS

With the price of coaxial feedline being what it is, a long run of coax from the antenna to the shack can end up being quite expensive. A solution to that problem is the use of 300-ohm feedline. The antenna on top of such a feedline (for a proper match) should be a folded dipole. The impedance of the folded dipole is 288 ohms.

The folded dipole also has a broader frequency response than the normal dipole. (Don't forget that some means must be used to bring the impedance back to 50 to 72 ohms to match the output of the transmitter; an antenna tuner or balun should be used.) Another advantage of the folded dipole is the much lighter load presented to an antenna hanging up in the air. This feed line is much lighter than coax.

Charlie Anderson, K2KF, who last month commented on the "bazooka" antenna, sent in some notes regarding the folded dipole. His information told that if the folded dipole is made of open-wire line, a good match to the feedline will be made. But if the folded dipole itself is made of 300-ohm line (as so many do) the match will not be as good. The reason for such has to do with the velocity factor of 300-ohm line being about 82 per cent.

The solution was printed in a 1947 issue of **RCA Review**. Instead of short-circuiting (with wire) the ends of the folded dipole, they should have a capacitor of the proper value inserted. The correct capacity was found to be 6.9 uufd. per meter of the operating frequency. Thus a 71 uufd. capacitor would be correct for 29 MHz (10.03 meters) and a 145 uufd. would be right for 14.2 MHz (21 meters). The value isn't critical and 75 and 150 uufd. mica capacitors would do the job. A 500-volt rating would be adequate in most cases.

Thanks to Charlie for the info. Others are invited to send in their tried and true methods.

A real problem with many amateurs is putting up an antenna for 80 meters to fit in a small lot. In one of the early issues of **Ham Radio**, Alfred Wilson, W6NIF, talked about the Sloping Inverted V. It looks like this: imagine you are looking straight down on the antenna. Instead of the ends being tied down at 9 o'clock and 3 o'clock, tie one end down at 12 o'clock and the other end at 5, 4 or 3 o'clock. Making it less than 90 degrees could cause cancellation. Usually you'll find that you can get an antenna to fit using it like that. It works very well. This is what we have up for 75/80 here at **Worldradio**.

The ends are close enough to the ground so that they can be reached and pig tails can be hung on the ends to bring it into resonance in the CW band. It's only up about 30 feet, has a balun on it, and has a low SWR across the entire phone band. We're extremely pleased with the very good reports we get with this antenna.

Speaking of reaching the ends, here's an experiment we'd like to see some work on. Set up an antenna; get it to 1:1. Then with another station doing the receiving, add pigtails to take the antenna out of resonance. Watch and note the levels of rising SWR at the same time the receiving station is watching his S-meter go down. Plot the way the two of them work together. What will you find? Well, we'll leave that up to you to work on. We'll bet you'll be surprised.

We must confess that the idea is not original with us but was seen in the German amateur radio publication **QRV** (and you know how scientific and precise they are). Their experiment was done with a matchbox; we think that adjusting the resonance of the antenna would be better. Try it yourself and you will settle a lot of arguments, at least to your own satisfaction. All that really matters is what happens to the other end, isn't it, and that's the proof of the pudding. So, do it yourself and you will know. Naturally we would be most happy to print the results of what you found.

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NEW AMATEURS

Every month we send a copy of **Worldradio** to every newly licensed amateur.

We do this so you can become acquainted with this newspaper. But even more important, we do it so that you can read about all the great things going on in your new hobby. Actually, we think Amateur Radio is more important than to just be considered "a hobby".

We hope you find that Amateur Radio is one of the most "meaningful activities" that you will ever find. There really isn't anything else that is as exciting or as useful as Amateur Radio. We like to think of the "amateur radio experience".

There is a lot in Amateur Radio to be interested in. You'll get the rewards and satisfactions out of Amateur Radio at the same rate that you put yourself into it.

Amateur Radio can be a great adventure. We tell about the action and the adventure every month here in **Worldradio**. You are cordially invited to subscribe. (Please see page 11.)

And, we are most interested in recording your adventures. Send in what you are doing. Participate. Get involved.

Amateur Radio will make your life richer.

And we hope "**Worldradio**" will help you enjoy Amateur Radio even more.

INTERFERENCE

Dr. Theodore Cohen, W4UMF

The big news this month is that the W2OVC antenna case has been resolved.

New York State Supreme Court Judge George Beishem, on Feb. 13, ruled that no motion of interference could be made in the trial. Further, the judge would not allow any bills to be submitted for sickness or illness allegedly caused by interference, nor would he permit bills to be submitted for TV repairs.

In sum, the decision reflected the opinion that the RFI case was a matter for the federal authorities and was not within the jurisdiction of the state court.

Still to be resolved is an alleged violation of a local zoning ordinance. But Len and Norma are "out of the woods." The victory, however, did not come easy. Because of the strain in the neighborhood, Len and Norma have decided to sell their house and to move to another part of the country. Further, the case required expenditures in the amount of $5,300, while donations to date total $4,200. If you haven't made a donation, perhaps this is the time to do it. Donations can be sent to:

Len and Norma Mendel
185 Ramona Court
Yorktown Heights, N.Y. 10598

As a postscript, congratulations to Mr. Robert Booth, Esq., and Mr. Monroe Mann, Esq., two fine lawyers who assisted in the preparation of the Mendel's case. Well done, gentlemen!

The FCC's Been at it again! Following a showing of their RFI booth in Chicago last January, Jules Deitz, chief of the Special Projects Branch, FCC, moved his booth to the Washington (D.C.) Hi-Fi Show. The booth, as you may recall, allows visitors to activate a record player, tape deck, radio or television at the same time that they activate one of a number of "signal" sources. Specifically, the rf sources which can be activated include a land mobile transmitter, fluorescent light, electric shaver and auto ignition system.

The purpose of the booth is to educate the public in the matter of RFI and to encourage the manufacturers of home-entertainment equipment to design their devices so that they can function in today's urban and suburban rf environment.

Deitz was assisted in the booth area by Rose Colella, FCC supervisory applications examiner. Their efforts to bring the RFI message to the public and the manufacturers is vital to the work being done to solve the RFI problem for all time.

The ARRL RFI Task Group held its second meeting in Washington D.C., on March 4. The meeting, held at the Washington Office of the League (the law office of Bob Booth, ARRL general counsel) brought the following members together for an intensive eight-hour session on the problem of RFI:

Robert Booth, W3PS; Vic Clark, W4KFC (chairman); Ted Cohen, W4UMF (secretary); Harry McConaghy, W3SW (board liaison); Doug DeMaw, W1CER; Don Gerue, K6YX; Bill Grenfell, W4GF; Lew McCoy, W1ICP; Ed Redington, W4ZM; Hal Richman, W4CIZ; Paul Rinaldo, K4YKB.

One of the highlights of the meeting was the submission to the group of a comprehensive report on rf susceptibility tests made by the Santa Barbara Electronic Interference Assistance Committee. The report, and data therein, were assembled by the following amateurs:

Robert Spurlock, WA1KNE/6; Albert Ward, WØIZF/6; William Talanian, W1UUQ; Raymond Remington, W1SBP/6.

The object of this group's experiments was to collect data on field strengths observed in urban and suburban areas for use in establishing susceptibility standards for home-entertainment devices. The preliminary report not only detailed radiation measurements near the residence of K6YX, but also examined signals induced in the power and telephone lines when this station was on the air.

A final report on the work being done by the Santa Barbara group is expected by June 1.

As but one example of the importance attached to the RFI problem, The Northern Virginia Amateur Radio Council, in cooperation with the Foundation for Amateur Radio, is sponsoring a technical symposium on RFI at the 1975 ARRL national convention. Scheduled for the afternoon of Sept. 12 in Reston, Virginia, the symposium will feature papers on susceptibility standards, legislation and other related subjects.

Questions pertaining to the RFI technical symposium may be directed to this writer. Alternatively, send a 300-word summary of an unpublished paper you wish to read as a contribution to the symposium. If accepted, completed typed versions of each paper will be due June 1.

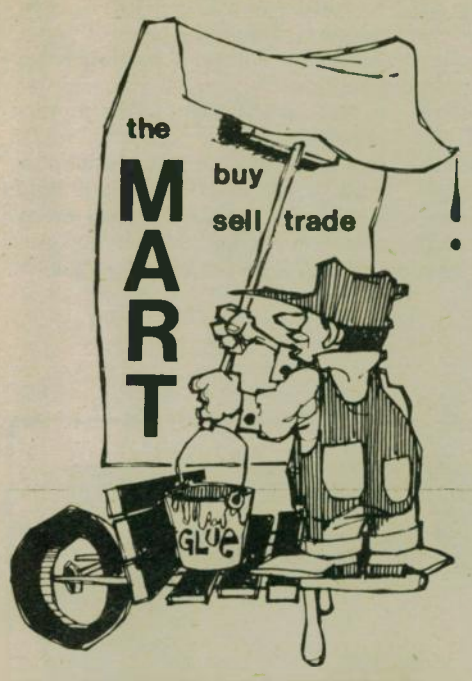
If you are an active amateur, you cannot afford to miss this symposium. And if you can read a paper at the symposium, the Amateur Service eagerly awaits your presentation.

Still haven't sent for your RFI Packet??? Why not? Almost 1,000 other amateurs have received theirs and are now taking those steps so necessary if we are to resolve the RFI problem. Why not send a large (9 x 12) manila envelope with 40 cents postage affixed to the following address and learn what the amateur and his neighbors can do when home-entertainment devices intercept legally radiated signals? Write:

W4UMF, secretary, ARRL RFI Task Group, 8603 Conover Place, Alexandria, VA 22308.

Worldradio has many new features and columns coming. The only problem is there isn't any place to put them. We want to add more pages. But, as you may well know, the price of paper just keeps climbing, climbing and climbing.

Here's how you can help. Buy a gift subscription for a friend of yours. Think about who you know who is a real dedicated and involved amateur. He will enjoy this newspaper. Sure beats giving him a carton of cigarettes.



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CMOS. 4001-37¢, 4009-65¢, 4010-75¢, 4011-32¢, 4028-$1.75, 4030-47¢, 4049-89¢, 4102-$8.50. Free catalogue. First order postage free. Take 10% discount on $30 order. Electronic Design Concepts, P.O. Box 298, El Cajon, Calif. 92022.

Complete 36 page QSL catalog! 300 cuts. stock and ink samples. Ten sample QSLs. 25¢ to Corneilson's, 321 Warren St., N. Babylon, NY 11704

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Free Kirlian image on 35mm slide plus details on Kirlian Equipment. Systecon, Department 70, Box 417, West. Hyattsville, Maryland 20782. (301) 596-5654

Used Mylar Tapes — 1800 foot, ten for $8.50. Used 8-track 94 minute (RCA Red Seal), ten for $20.00. Postpaid. Fremerman, 4041 Central, Kansas City, MO 64111

Prestige call plates engraved on 2x8 blue, black, red or simulated walnut plastic $2 each. Winser, 2049 Yosemite, Milpatas, CA 95035

Wanted — A good automatic voltage regulator and good late model transceiver, Cash — Albert, 304 East Courtland, San Antonio, TX 78212

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

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

Revolutionary!!! Learn or improve CW ability the easiest way. Developed by Russ Farnsworth, W9SUV. 13 wpm in half the time. 3 LP records, $9.95, CA + tax. DANA RADIO, 2704 16th St., Sacramento, CA 95818

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Wanted: Your discarded and old telegraph keys-bugs, battery operated radios to 1930, National Radio SW7, etc. Description and price please. Walt's Emporium, Dept W, P.O. Box 19406, Dallas, TX 75219

QSL samples $2.00. John Hull Printing, Rte 6, Box 41, Duluth, MN 55804

Rubber stamps, $2.50 includes postage. NJ residents add tax. Clints Radic Service, 32 Cumberland Ave., Verona, NJ 07044

Dayton Hamvention at HARA Arena April 25, 26, 27, 1975. Program brochures mailed March 10th. Write for information if you have not attended the last two years to HAMVENTION, P.O. Box 44, Dayton, OH 45401

N-Channel JFETs 50¢ each: 400 MHz RF type, or Switch type, or Low Noise Audio type. Special N-channel Chopper with RDS(on) - 10 ohms: $3.50. NPN matched pair (2N4880) - 29¢. Programmable Op Amp (4250) - 89¢. Free Catalog. First order postage free. Take 10% discount on $30 order. Electronic Design Concepts, P.O. Box 298, El Cajon, Calif. 92022.

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Auto-Call keeps up with the latest ham info from Washington, D.C. Subscriptions $3.50 a year, sample copies 25 cents. Address: Auto-Call, 2012 Rockingham, McLean, VA 22101

Magazines — Ham Radio. QST and ''73'' for years 1972 thru 1 4, at four bucks each per year, V NJ, 355 West 84 Street, New York, NY 10024

Bay Area ham radio repairs. Mark, K6BE. Berkeley. 415-548-1889

Wanted: old battery receivers. National SW-3, SW-4, SW-5, FB-7, Pilot Super Wasp, old broadcast receivers, magazines, call books, handbooks, catalogs and early wireless material, Erv Rasmussen, W6YPM, 164 Lowell St., Redwood City, CA 94062.

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(please turn to page 24)

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The Hy-Gain balun for mounting at the beam, handles kw, for $15.95.

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Then, to prove you weren't even on the air when the clod down the street said he got TVI'd, keep a good log, we have ARRL Logbooks for 75c each. Neat.

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Public Relations

ARRL Pacific Division Director J.A. "Doc" Gmelin, W6ZRJ, conducts a meeting twice a year with Division elected and appointed officials and representatives of ARRL affiliated radio clubs.

At a recent meeting Gmelin invited **Worldradio** editor Armond Noble, W6AJY, (an Assistant Director and Public Relations Assistant) to talk to the meeting about public relations. Noble's remarks are printed below.

"Doc" asked me to speak on "Public Relations" Unfortunately, Amateur Radio's relations with the public are presently not at the level they should be. And, like no time ever before, do we need to improve our public image.

The upcoming World Administrative Radio Conference is one reason for even our very own FCC says that Amateur Radio is under scrutiny due to the decrease in numbers. And, a recent issue of a magazine which caters to the "unmentionable" radio service trumpeted the fact that their "licensees" were growing at a phenomenal rate, while ours were declining. On the local level, we must concern ourselves with tower restrictions, zoning ordinances, etc.

Frankly, I'm baffled as to why something as useful, dramatic and valuable as Amateur Radio is, has its light hidden under a bushel. It's a grotesque situation.

What can we do? First we must use the news media. How come is it that every newspaper prints notices of any upcoming club meeting and who the speaker will be etc. and you never see such about Amateur Radio Clubs? Why, are we lazy or just unaware? take your choice of which is worse.

Look at the exhibits at the county fairs and Amateur Radio very seldom get enough volunteers to man a booth That raises the sickening question do the flower sniffers and the jam canners and the doily makers think more about their hobbies than we care about Amateur Radio?

We've got something spectacular to show the world what has more human interest, is involved in more public service, is more fascinating or exciting than Amateur Radio? And yet the rock polishers show up at the fairs, and we don't. Frankly, gentlemen and ladies to an objective observer, our attitudes are absurd.

Okay, so much for the criticism what do we do about it? and I say we (gathered here is just about the cream of the crop of this division) you the leaders have to go out and first sell the amateurs on the fact we have something teriffic and, if we want to keep it, we had better get off our lazy rear ends.

Maybe we first need to convince the amateurs themselves of the greatness of what we have then go after the public

The first step appoint someone in your club to be press liaison officer Now I know that practically everyone will say "I can't write" they almost say it proudly If you're saying that translate it to what it really means I have failed to learn one of the basic communication processes and one of the most important Why are so many people so quick to proclaim their ignorance? That may be blunt, but it's true

So find someone possibly there is a journalist or a teacher or a tech writer or anyone else who knows the sequence of the letters in the dictionary.

Have that person establish contact with the local newspapers and don't forget the suburban papers the weeklies and the shoppers I can tell you they want LOCAL NEWS

Type your information on one side of the paper be generous with the margins they used to say double space well, the editors are getting older now, so triple space give them good clean copy.

Don't send anybody a carbon copy put your phone number on the release so if they want more facts, or clarification on some point, there is someone to contact.

Does your club have a letterhead? If not get some made look professional.

Remember, the newspaper is also getting material from businesses, charities, the Jay-cees, 20-30, Optimists, Elks, Lions, Moose, etc. and we don't want to look poor by comparison.

To the story itself you might want to write this down Who where when what why how. Before you turn in your story go over it, and ask yourself if all of those questions have been answered in the story.

Now, here's a little secret after you write your story, read it out loud You'll be surprised how the clinkers will show up when you read it out loud you'll find you will be cleaning up your prose If you have the lead time, an old trick of writers is to put it on the shelf for a day or two. Then pull it down and watch the re-writing you do.

A few pointers When you are sitting and wondering what to put next in the sentence put a period. Clean out the "ands" Start a new sentence instead. Nice short crisp sentences and short paragraphs. Such was the mark of Hemingway.

What do we write about? I've heard people ask that question Well, just look at all the other glop that is in the paper Start with the meeting notices of your club and don't forget the radio stations and television stations that run the "Community Bulletin Board" segments on their programs.

How 'bout Field Day or the Simulated Emergency Test? papers should eat that up. Now, about Field Day I can tell you this, if you keep having it a hundred miles from nowhere you're not going to get, what we in the press called, "the play"

Reporters and photographers have to get to a certain number of stories a day the further away you are (on a feature story) the less chance you have If you insist on doing such, take your own pictures 8 by 10 glossies do the story and get it to the paper a little sooner than you send in your Field Day entries to the League Field Day is a good story for the weekender supplement. Let them say last weekend so there is something current about it.

And why not have Field day in the local park where the city fathers, public safety officials and the general public can be invited

By the way, I have yet to hear of an emergency situation in which the amateurs all ran up to some mountain top. In **Worldradio** we've given major coverage to every amateur radio role in emergencies for the past 3 years ranging from the Rapid City Flood to Xenia, Ohio, to the Managua Earthquake to Honduras and I have yet to hear of the operators running off to a mountain top They were at Red Cross headquarters, or an armory, law enforcement agency, hospital — or whatever.

In conclusion, look at this releases sent out by a club in New York City

"Want to be a ham operator and talk to people all over the world on your own radio station? The Hall of Science in Flushing Meadow Park, Queens, starts Amateur Radio Licensing Courses on Saturdays, beginning January 18. Call 699-9400 for information.

"If you are interested in radio and electronics you can join the thousands of other Americans who have Amateur Radio Stations in their homes. 285,000 American Hams are licensed to talk to other radio enthusiasts all over the world etc

"Would you like to visit the countries in Africa, Europe, South America or in the Pacific and talk to the people about their customs and everyday happening? You can talk to them by your own amateur radio station located in your own home etc.

What's got them wound up?

If your club doesn't have licensing classes, it doesn't deserve to be called a club ...

When you do have classes ... get the word out get the word out

I was the guest speaker at a radio club in the Bay Area and one of the members asked why the newspapers never printed anything about all the great things Amateur Radio does I asked him if he had ever sent anything in the answer was no, he hadn't

Another good subject is the visiting foreign amateur who is being hosted by a local amateur. A lot of human interest there ... hands across the sea voice friends radio pals finally meet the imagination can do a lot with that. And now with TWO Amateur Radio satellites in orbit If you say ... what is there to do stories about? ... you better wake up to just what is going on in Amateur Radio.

Speaking of OSCAR, it's pretty weird that less than one out of every hundred amateurs has partaken of the amateur role in the space age ... our new frontier practically ignored a few amateurs have given large amounts of money, time and knowledge but to most it's ho hum

It's not hard to work into the guys who went on the Tongareva DXpedition wanted to show the natives something, so they worked through it with ten watts and a yagi strapped to a palm tree KH6IJ has worked through it by keying the push to talk on his Drake hand-held and I know one guy who worked through it with a Heathkit Two-er

But anyway what do we do to get into the paper? Practically nothing here's an example (newspaper article about Sid Hall, WB6BNZ), in Sacramento Bee, is shown). Notice that headline "Sid chats around the world" If your world is only working through the repeater to Cupertino you might have a harder time of it but seriously I've seen newspaper feature stories just on the fact that the local amateurs put up a repeater.

To end you are probably asking where you're going to find all the time to do all this here's the answer to that Get away from that mind-rot called television Instead of watching football players kick a ball around, or fictional detectives kick each other around, for hours and hours on end ... do something yourself.

What are you watching? ... did you know that in a given week there can be more homicides on television than in the United States in real life ... what kind of ghouls watch that? ... If you watch Bunker, the illiterate bigoted clod every week, in one year you will have spent 26 hours or the equivalent of more than three working days. So, instead do something real, something meaningful ... be the star of your own show ... amateur Radio has problems ... if you're not part of the solution, you're part of the problem.

Ask yourself ... "Am I a real friend of Amateur Radio?" Then go out and be the best you can the best friend Amateur Radio has.

That's Public Relations.

STATION APPEARANCE

The winner of this month's "Station Appearance" award is Jack Petree, WB4OVX, of Roanoke, VA. Jack receives a one-year extension of his subscription to **Worldradio.**

What we would like to show in this "Station Appearance" feature is stations that give a good image of Amateur Radio.

We'd like to print more pictures of stations that look like the person is proud of Amateur Radio (which usually shows a great degree of self-pride).

Give yourself this quiz, "If mine were the only amateur station that someone saw, what image would he have of Amateur Radio — and the people in it?"

We think that what makes a good station appearance is not so much stacks of equipment but rather the decor or the atmosphere presented.

We like the idea of Paul Schuett, WA6CPP, in which he refuses to call it a "ham shack". Paul says, "That's too pedestrian." He prefers "communication center".

You might call it your den, radio room, or whatever your image of Amateur Radio may be.

We'd like to print pictures of the good looking stations so as to inspire others. Don't get the idea that it has to be all beautiful paneling and Danish furniture. We just want those that show some thought.

It's amazing how a surplus door looks with some coats of stain or paint. One thing we think every amateur station should have is some sort of call sign identification. That shows a little "class". If you have any momentos from foreign travels, put them in your radio room to give it a little international flavor. Put your certificates in frames and mount them on the wall.

Let's make our stations something to be proud of. Let's make our stations something that will make any non-amateur visitor think "that Amateur Radio must really be something".

NEXT MONTH: An article on how to copy CW at 40 wpm, a listing of nets, OSCAR schedules, more action and adventure in the ARS.

Operation Honduras

By SIRA
Public Relations Dept.

On the evening of Sept. 20, 1974, Rafael Tavares, HR2RT, of La Lima, Honduras, informed the emergency network of SIRA (International Society of Radio Amateurs) about the destruction which had been caused by hurricane Fifi.

The report by HR2RT was recorded by SIRA and a few minutes later Rafael Tavares' voice was being heard by thousands in the Dade County area, over a local Spanish language broadcast station, describing the devastation which lay around him. This broadcast sparked the initial appeal for assistance from the general public and was followed on Sunday, Sept. 22, with a 24-hour marathon over WQBA radio.

The Latin Chamber of Commerce, WQBA, and SIRA all appealed to the public for help. The people of Dade County responded generously with $43,000 in cash and more than 15 tons of food, clothing, medicine, portable water purifiers, tents, etc.

Later SIRA received an urgent request from Alexander Talbot, HR1ALT, of Tegucigulpa (the capital of Honduras) asking for HF and VHF communications equipment. Subsequently, the Commission of Help to The Homeless of Honduras provided SIRA with nine semi-portable VHF transceivers and four HF transceivers as well as microphones, antennas, etc.

Five members of SIRA (Daniel Gomez, YV5DWB/W4; Larry Lytle, YN1LL/W4; Jack Goodwin, VE3DPQ/W4; Rafael M. Estevez, WA4ZZG; and Carlos DeFelipe, LU2DZ/W4) flew to Honduras with the equipment in order to expedite delivery and assist with the installations.

A VHF net was set up in Tegucigulpa between the airport control tower, the Air Force major in charge of supplies and the military school which served as headquarters for COPEN (the emergency communications and operations center). The special call sign given for use at the center was HRØSIRA.

Meanwhile, in Miami, other members of SIRA maintained the emergency net on 14205 MHz, 7155 MHz, and 3805 MHz, which are the customary frequencies used by the SIRA emergency net during any emergency.

In San Pedro Sula, the second largest city of Honduras and one of the centers hard hit by the hurricane, Amateur Radio provided the only means of communication. Tony Saybe, HR2AJS, literally spent days in his shack handling much of the relief traffic to that area. The Radio League of Panama sent a two meter repeater which operated on 146.34-146.94. In a mountainous area such as Honduras, repeaters are a necessity for effective VHF communications. Carlos de Felipe, one of the SIRA group, helped install the repeater and reported that it was placed at an altitude of 6,000 feet. Other amateurs who came to help were HP1PM, HP1ND, YN1FI, TG9TL, TG4GH, HP1BO and HP1BM.

Although the experience gained by SIRA during and after the Managua earthquake of December, 1972, was very useful, the situation in Honduras

(*please turn to page 19*)

Does she share the shack with you?

By Gloria Dawn

Maybe you think amateur radio operators are loners.

Maybe there are reasons you prefer the shack without her. But 10-to-1 if you ask any amateur, "Does your wife like hamming, too?" you'd get a negative answer. In fact, there'd probably follow some complaining and explaining that she really doesn't like to get involved. Is there any way to bring her into your radio circle and interest her in your fascinating hobby? Or, at least, to get her sanction when you buy that piece of equipment for the radio shack instead of for the living room?

Being an XYL who is not an operator, with no desire for a call, but yet interested in the radio shack, I queried other wives and amateurs to find out what you guys are up against. But before we discuss their solutions, I'd like to express some views of my own.

My husband, Pat (W6RYX), is one of those old timers in amateur radio—you know, the kind who use "grid" for a "base"— or calls a collector of a transistor . a "plate" (to be promptly corrected by the sharp, youthful voice along the channel). So you see, I married into it "for better or for worse." Also, "love, honor and obey" were part of our wedding ceremony. So right off the bat I'm stuck smack in the middle of the radio shack! Maybe that's why I go along at least partially when the bank statement shows a check for a new antenna which he "forgot" to tell me about.

But first off, your marriage has to be pretty sound to be compatible with the squeals, the squawks, (and as every XYL complains) the loudness of transmissions received. If you have an understanding wife who is patient with all the jargon, you're one of the lucky ones. Be gentle and kind to her; you won't find many around! Notice the majority of amateurs usually attend the conventions without the XYL. A couple of years ago when the ARRL convention convened in Santa Maria, a ladies outing to Solvang was planned. We enjoyed a nice get-together on the bus, a delicious luncheon in Solvang, with a few hours of browsing in the shops. In the meantime our husbands spent as much time as they liked talking with the booth attendants, or simply "hamming it up."

Planning special activities for the wives is becoming more prevalent as the organizers of these conventions, race committee communicators, field days and DXpeditions are now beginning to realize. If the wife is agin' it, he may not get there!

Last year Pat and I, as part of the Emergency Race Communications unit for the Baha 1,000 race, were stationed at Bahia de Los Angeles. Mac and Mary McClellan (WB6NQU) and son Kim (WB6PHY) drove ahead loaded with equipment to set up on the beach. We followed a couple of days later by air.

Mac is president of McClellan's Air Conditioning Service in Bellflower, California, and one of the privileged with an interested XYL. Like me, Mary doesn't care to operate the rig much so you might wonder why she tagged along. Mac and Kim will tell you that the logging, filing, bookkeeping, scheduling and reporting could never have been handled as effectively as it was by Mary.

Granted, Women's Liberation is trying to make us all equal but there are still some things women can do better than men. When we can do them better we like to show off, as well as to participate in what interests our guys.

The McClellan's beach radio shack was the most popular, with plenty of steaming hot coffee, delicious rolls, elegant tidbits, all served with feminine charm and dexterity by Mary. Also, everything seemed unusually well-organized when questions needed answers and messages were taken or delivered. It was always Mary who could put her finger right on the information and dispatch it quickly.

As we've said, few wives enjoy the technical part of hamming, but you can involve her in the non-technical aspect. If you share everything else with her and enjoy her company, then share your shack with her. Get her ideas as to the new desk you want, the best decor for the shack and how much room is needed. Be sure to make her feel you're leaving room for her, too. Plan some things to involve her. You'll think of many things she's good at other than running the rig. Mary tells me one of the greatest satisfactions in going along with Mac is the making of so many new friends, as well as the traveling and sightseeing she enjoys. Actually, it was through an amateur get-together that I first met the McClellan family.

Now let's suppose she absolutely falls in love with everything about hamming. You might do like Fred Turk (W7VQQ) of Lakewood, California. He got the books out and tutored his wife, Val (WN7ULH)—even became babysitter many times while she practiced code, cracked the books and soon took the test. Now their only problem is, who gets to the rig first? If you think you could work this out, then go gung-ho all the way and persuade your XYL to become a "Call Girl."

Better be careful and not carry this thing too far though. Last Colegas y Amigos Ham breakfast we attended in San Diego at the Town and Country, Director Duke Ellington (W6OZD) asked each one to be introduced. There were two families at the tables who not only introduced the XYL with her call sign, but included their two children each with their own calls. You might end up not only having to share the shack with her, but with the entire family!

Mac McClellan (WB6NQU) "shares his shack" with wife Mary, in wee hours of morning to keep communications active and paper work accurate. The above night time shot shows beach ham shack set up for Baja 1000 race check point at Bahia de Los Angeles.

FORUM

Worldradio starts a new feature. It is called "Forum." The purpose is to give a place for opinions to be heard. We want "think pieces." And we shall also present answers, comments or rebuttals.

The printing of such articles does not mean that **Worldradio** necessarily agrees, or disagrees, with the opinions ventured. We shall present all sides of an argument. But, we do reserve the right to edit to reasonable length.

So climb up on your "soapbox" if you wish. This is your access to the "thinking amateur."

The first such entry is from Don Gerue, K6YX, of Santa Barbara, CA.

How important is the "Restructuring of Amateur Radio Docket" to me?

Amateur radio is in trouble. Last year there were 280,262 amateurs. Now there are 275,912. There are 500 less amateurs every month.

Further, there are five per cent fewer novices this year than last, and the average age of amateurs is steadily increasing. These facts strongly indicate that amateur radio is dying. Those now left may all be technically qualified and proud of the capabilities in CW, but continued insistance on these "guarantees of interest," that we tend to think will keep the riff-raff out, may contain the seeds of amateur radio's destruction.

The World Administrative Radio Conference convenes in 1979 to reallocate the RF spectrum. The existing statistics of decreasing allocated spectrum utilization combined with a degradation of our claims of improvement to the state-of-the-art and public service may well trigger a massive loss of amateur frequency allocations.

FCC Docket 20282 is a reasonable, inclusive package of proposed changes to amateur licensing and operating laws which will hopefully correct some of today's problems and allow amateur radio to resume its growth.

The real question every amateur should be asking himself in examining 20282 is, "What is best for amateur radio and its future?" The questions he should not address are, "what happens to my favorite band, or why should I put up with crowding on 40 or 2," etc., or "why should I let young untrained people aboard?" Concentrate on how we intend to convince the world that everyone can have a fair shake at using the spectrum?

One proposed change that amateurs are reluctant to accept is the "no code" communicator license, but consider, why should someone have to learn the code to communicate on 220. The only reason most amateurs have is that "I earned my way. Why shouldn't everyone else?" Is our pride in our technical prowess all that important? I think not.

I would like to address directly the question of welcoming users of the Citizens Radio Service to amateur ranks.

I have spent many hours listening to and participating in CB activities. Even including the omission of required call signs and the occasional use of excess power, I would assert that the average CB operator is as honest and as law abiding as the average amateur.

While the call sign and power offenses seem heinous to amateurs, I believe that put in context, they do not seem too bad to others. To help understand the reason for this, analogous examples should be examined. One will have to suffice here. Your next door neighbor on one side bypasses all of the smog control equipment on his car because it "damages his engine." Your other neighbor is a "CB"er who does not use call signs. Who is causing the greater damage to your health and welfare?

Reflection on this hypothetical example and others indicate that amateurs feel more strongly about radio related misdemeanors than does the community as a whole.

If we want to make good amateurs out of good "CB"ers, please remember that, as in all person-to-person and community-to-community encounters, open arms are infinitely better than a closed fist.

There will be many editorials and a flood of information available to you on this historic docket. Read it all carefully. Think about it at length. Talk about it on-the-air, and finally put your reasoned, dispassionate thoughts on paper to the FCC. They want to hear from you. Your voice may be as important in the final rule-making as the comments of the ARRL as a whole. (This is a direct statement by Prose Walker.)

Every amateur's future may depend on what you say. Think well, think long, and write the FCC in May or early June.

•

Send a friend!

Send a friend a copy of **Worldradio**. Just jot down the name, address, city, state and zip of your friend and we'll send them one free sample copy.

Here's a traffic man that really advertises his net. Ted Champagne, WB4FLW, of Ft. Lauderdale, FL applied for and received the above 1975 tag. QFN-3651. "The All Florida CW Traffic Net" which meets on 3651 kHz nightly at 7 and 10 p.m. Ted also works 2 meters while mobiling. Note ARRL decal to left of tag. He is also a life member in ARRL. FB OM. (Florida Skip)

Apathy

By Larry Shima, WØPAN
Director, Dakota Division, ARRL

The 1970's have brought many new philosophies to our lives; some we buy, and some we don't care to get involved with. As amateur radio operators we have seen many new things come on the scene in the past few years. For some it has been two meter FM, for others it has been OSCAR 6 and 7. In any event, Amateur Radio today is entirely different than it was 20 years ago (yep, I was there 20 years ago). Are we ready to face the 70's as members of the Amateur Radio Fraternity?

In the late 40's and early 50's there was a rebirth of Amateur Radio after a period of imposed "no amateur radio allowed" during WWII. At the time, there was a revolutionary proposal to open up some new bands to phone operation and to create a new class license — THE NOVICE. The hue and cry went up from many that the NOVICE class license would lead to the downfall of amateur radio. Did it?

Fortunately, for many of us, reason prevailed and many of us got our start as NOVICES (I was WNØPAN in 1953). Today we are confronted with some of the most significant changes ever considered in amateur radio history. How do the majority of amateurs react to these changes? Ho Hum. Such an attitude will result in a few changes in their hobby that will not set too well. When it happens, the typical response from the "ho hummers" is "Why did those guys do it to me?" They are the first to blame the result on someone else.

Recently (within the past few years) the Minneapolis Radio Club went into retirement. The same few volunteered to serve as *(please turn to page 31)*

EDITORIAL

Armond Noble, W6AJY
Editor, Worldradio News

Here at **Worldradio** we have been tabulating the letters that have come in regarding the proposed changes in licensing and privileges in the recent docket.

Next month we shall discuss the docket. This month we present, in this space, a thought-provoking article by the well-known Peter Dodd, VK3CIF. The article and the comment are from the Australian publication **Amateur Radio.**

In between the sweeping generalities in this article there is a great amount of truth viewed against our 'popular' identify, the performance at ITU conferences of many delegates from African and other countries, and the dark clouds of a world frequency conference hanging over us for 1979. Perhaps the Eastern bloc countries are quite right in classifying amateur radio as a sporting activity. (Ed.)

By Peter B. Dodd, VK3CIF

Quite frankly I am heartily sick and tired of all the preaching going on within the amateur service to justify to ourselves that amateur radio is a good thing. But, more later.

Do you hear footy requiring justification for its existence? Or table tennis? Or chess? Or stamp collecting? Or flying model aircraft? There is public acceptance of these activities as essential parts of everyday existence.

"And what are your interests, Joe?" "Reading, football and going to the beach in summer". "Very good Joe — what else occupies your time apart from work and sleep? Don't you bet for instance?" "Oh, yes, I have a dollar a week on Tatts and follow the dogs a bit whilst having a drink with my mates down at the pub".

You see my point? First rate things are like reading, watching footy and such like, then down to the fringe-area things like betting and a drink or two. Listening to the radio or watching the monster are other socially acceptable activities.

But mention amateur radio and what is the response?

Either it is an unknown activity or you are asked in a derogatory way about being 'one of those hams'. Kindly folk ask what is a ham and what does he do. Perhaps the word 'ham' did us more harm in the public relations field than everything else put together including interference to favourite programmes.

Have you never faced a supercilious enquiry about being 'one of those hams'?

"Oh yes", you say, "and I gave him a really expert run down on amateur radio which he won't forget in a hurry". "Did you? Good on yer, mate." Like to take a bet on his reaction to your good intentioned preaching? Did you hear him later in the week talking to his friends about meeting some ham bloke — "must have been a real nut-case the way he shoved the stuff down my throat".

In the public's mind is amateur radio an activity rated below the fringe area even? If it is — why? I'll tell you.

We have fallen down badly with our public relations work, not merely lately, but most of the time. Are we so wrapped in our hobby, so self-centered or so introverted that we have not time to publicize ourselves? What are we, a mob of rabbits forever burrowing underground instead of shouting our excellence from the roof tops? We claim to talk to the world but where do we hide publicity to the ordinary man in the street?

What does the public know — or care — about the OSCAR programme? Did officialdom see to it that amateurs received no mention for their part in the recent Queensland floods? What could a good journalist have done with amateur communications for Las Balsas and countless other out of the ordinary occurrences?

Things are happening now, not the stale old stuff about pioneering 200 metres and below, or the vital part played long ago by amateurs in communications by wireless. All this is good stuff but forget it once it is in written history.

OSCAR satellites, moonbounce and other scientific experiments, day to day communications are going on with an interesting background. These and numerous variations on such themes should regularly appear in the press, be heard on radio, and be seen on television. But for sure, ban that word 'ham'. It has lost any value it once had. It is no longer funny — just as Tony Hancock's "It's raining in Tokyo" is dated. Incidentally, the use of 'that word' is to be discouraged on no less an authority than through a policy of the WIA Federal Council.

What are we doing for the young? What are we doing for beginners? What will we be doing for Novices? Are we so smug and so elite, so privileged, so know-it-all that we have no patience with anyone aspiring to climb the ladder below us?

What are we missing in the schools? It might be too much to expect amateur radio to be an examination subject, but apart from a few dedicated individuals manning the occasional YRCS activity or a 'big deal' once a year appearance by a few people on JOTA, what are we doing for the young?

Hit and miss methods hopefully believing that an occasional teacher in equally few schools will fire up enough enthusiasm even to inform students about amateur radio are no longer good enough. Every school ought to know something about OSCAR satellites and how easy it is to climb on this bandwagon of exciting experimentation to broaden the pupils' knowledge of the world around him (and her, too).

No, we go around hiding our talents, because we are 'amateurs'? Is the word 'amateur' as great a millstone round our necks as the word 'ham'? Everyone must have heard the expression 'he came up from the world of amateurs'.

I submit we must do a big job on our public relations, our beneficial effects, and our potential value to the community. And this applies to you, and you and you over there as well as to WIA activated publicity constantly flooding the media until they sit up and take notice of us.

All this is very different from sitting supine in your operating chair hoping the other bloke will do something; reading in our amateur magazines about the benefits of amateur radio and how can we stave off disaster by convincing ourselves we are, after all, splendid blokes full of knowledge and world-wide bonhomie; what the great 'we' have done and hope to do.

Amateur radio is not a secret society. The activity is not allied to black magic, witchcraft or any other little known fad or occult art. Sure, we have some mystic language but this is necessary fun, part of the game. We talk openly, even with Russians, but we are not communist spies as an article in the "Sun" of 18th March seemed to imply from a British Defence Council Report.

This article is intended to stir every right-thinking amateur into doing something about our public image. Not only now, not only next week, not only next year, BUT ALL THE TIME, mate. Despite our increasing numbers we do not get more frequencies. Without frequencies on which to operate where would we be? Back to growing roses perhaps!

Continued from ARRL

(*continued from page 5*)

Managing Editor of QST is in charge of much of this work.

Major League publications, as well as QST, are not printed at the Headquarters but rather by outside printing houses, although the layout and pasteup work is done by the Headquarters staff.

Membership records and related matters are handled by the Circulation Department which is also in charge of the production of many of the other types of materials produced in various departments such as club bulletins, CD bulletins and various informational sheets and related materials.

Advertising for QST and other League publications is handled by a separate Advertising Department. The League also maintains an extensive Accounting Department.

The 16 Directors elected by the membership of the various Divisions are the individual members' real representatives to the Headquarters, as well as being the policy makers. The Directors determine the basic stand the League will take in various matters which effect the radio amateur and the members of the ARRL.

The workings of the Board and the democratic process involved are often misunderstood by both members and non-member radio amateurs. Individuals and groups often criticize the League, Headquarters and the Board, most often because they feel that their particular interest is not represented within the League structure. This is often due to misunderstandings of what the League is and how it functions for support of all Amateur Radio.

To give a better understanding of how the policy of the League is determined and how the Board of Directors function, the next article in this series will deal with this important aspect of League memberhsip affairs.

(continued next month)

Europe

(*continued from page 6*)

cost. Pretty tough rules. I know of at least one OZ station renting an old, abandoned farmhouse to avoid this confrontation.

The German regulations take a bit more enlightened attitude towards the amateur's problem in this regard. Assuming that the German amateur's rig is "clean," the rules in general state that the amateur is held responsible for TVI and BCI only if the owner of the receiving equipment "has taken all steps which are technically and economically feasible in order to secure his installation a greater freedom from interference, for example by using additional blocking devices, filters, suppressors, screening and a more favorable choice of the type and positioning of the receiving aerials."

I also found to my joy that W6 stations are not necessarily a dime a dozen everywhere in Europe and that W6 and W7 stations are very much sought after from Europe. Some Europeans even told me they had never worked a six or a seven. You will also be sought after when operating your own US call/suffix of whatever country you are in. In fact, more European amateurs answered my CQ when I was using my WA6BEX/DL call than when I was using my OZ5HX in Denmark, although I must admit that my QTH in Germany was considerably better.

There was pronounced interest by foreign operators in operating conditions in California, our lifestyle here, and so on. Shortest QSOs in general were the ones with Russian stations, probably due to language difficulties, or maybe a fear of getting too chummy. A few Europeans even suggested (maybe out of courtesy) that American operators are very good operators and behave quite well, given the competition over here when an opening occurs and our more limited phone space. (I am sure that doesn't include the pathetic behavior by many hungry U.S. DXers during the recent Kingman Reef DXpedition.)

All in all the trip was one of the highlights of my radio career and I recommend a similar sojourn to foreign parts with a rig to anyone who can swing the cost of the trip. I can even tell you where in southern Bavaria, near Austria, at an altitude of 2,700 feet, there is a gorgeous farm (with a view of the Alps that won't quit) where the farmer will help you put up your dipole 35 feet above the ground, and where you can operate yourself to oblivion for a total cost for two of $7 per night, breakfast and all the 220 volt power you need included.

A German visitor's license is very easy to obtain, is good for your choice of three months and costs $6. If you go, don't forget fuses, a compass for antenna alignment, wire cutters for antenna trimming, 50 to 75 feet of coax and all the other little goodies you should have with you—including the special European 220 volt wall plug you need to plug the rig into the wall. Unless you have all the necessary stuff with you, you will have quite a problem, unless you are operating from or near a very large city.

For a compact antenna I recommend a 15 meter dipole with a 20 meter outrigger, the latter connectable with a pair of alligator clips. Forty meters phone is practically useless in Europe due to European broadcast interference on the amateur frequencies and QRM in general.

Now all you have to do is convince the XYL that operating abroad is not the real reason for going, but since you are going anyway, why not take the rig along?

One last word, when operating abroad make sure you are extra courteous. You are, in effect, a U.S. ambassador for the length of your stay.

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Here's a suggestion. If the local club in your area insists in continuing with its head-in-the-sand approach to everything, start your own club.

Honduras

(*continued from page 15*)

presented an altogether different problem due to the large area which was affected (32,300 square kilometers).

In reflecting on the events which occurred in Managua, the members of SIRA consider the help they gave during Managua's darkest hours a shining example of service to humanity. If this is true, then the effort put forth by the members of SIRA for the people of Honduras proves that the SIRA motto, "fostering brotherhood and goodwill," is not just empty words, but can be backed up by action when the need arises.

SIRA wishes to thank those English-speaking radio amateurs who helped keep the emergency net frequencies clear and invites them to join the SIRA emergency net in order to improve the network capability.

The SIRA VHF repeater is installed in Hialeah, Florida, and uses the call sign WR4AIY. The American Red Cross, as well as the Latin Red Cross, will participate in the monthly exercises held by SIRA to keep the emergency net read to serve Dade and adjacent counties in case of emergency.

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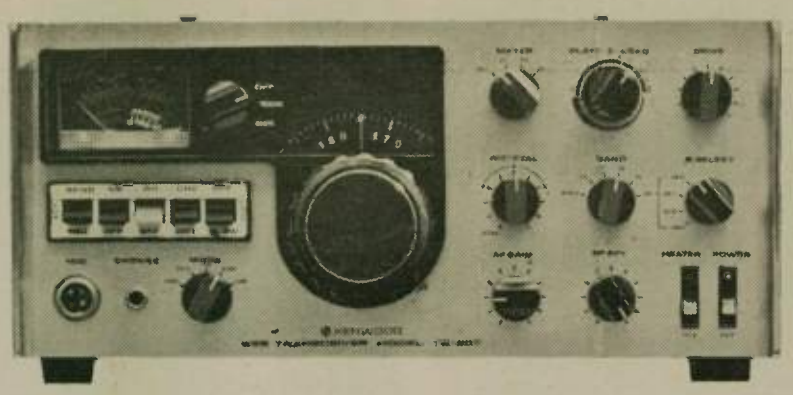

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