The Worldradio News

Vol. V, No. 11 — Adventure in Amateur Radio — May 1975 45¢

WCARS declares war on jammers

"We've given some teeth to the idea of self-policing in Amateur Radio." Those were the words of Sylvan Mayer, W6KOX, after a 12 April meeting in Oakland, CA which organized the action to take those who deliberately interfere to court.

Legal advisor and chief counsel of this effort by the West Coast Amateur Radio Service (WCARS) is attorney Ed Peck, K6AN. As Peck said, "We will seek the aid of the FCC and the U.S Attorney's office. If such avenues fail to get reasonable cooperation we will seek an injunction against further jamming and ask actual and punitive damages. The civil suit would be filed in a Superior Court of the county in which the interfering person resides, or in an appropriate Federal District Court."

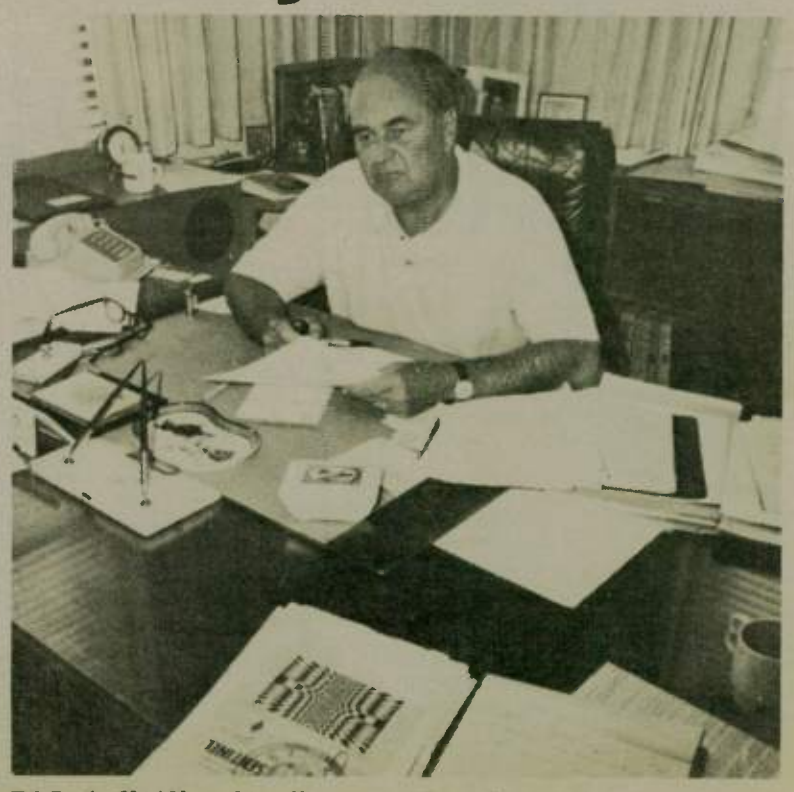
In fighting back at the interference which has plagued WCARS for some years, Peck said, "The principle we are pursuing is a section of damage law. We shall show that the intent of the jammer is wilfull and intentional infliction of emotional distress." He went on to say, "The suits would be filed in behalf of a particular radio club or organization, and if a judgment was rendered against the defendant damages would be awarded to the organization filing the action." Peck further commented, "When we win one it will snowball all over the country."

At the meeting in Peck's office, which was also attended by Charlie Weber, WB6RPK, and Art Sinclair, W6FKQ, a letter from another concerned amateur radio operator/attorney, William Scully, W6FG, was read. In his letter Scully said (in part) regarding a court action against jammers:

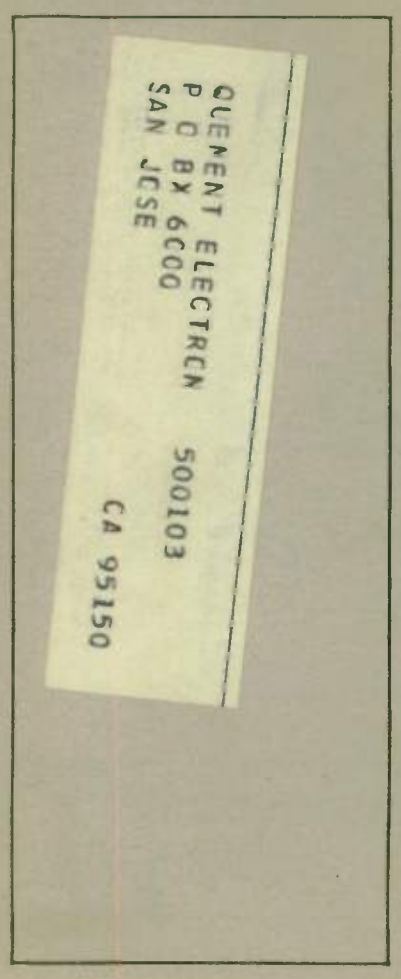
"Such an action would, essentially, be based upon allegations of wilfull and malicious interference with the lawful exercise of our corporate powers (*referring to WCARS*), our pursuit of the objects of the corporation, and the rendering of a public service. The public feature of our activity (providing assistance to those members of the general public, for no charge, who may be in various stages of serious need) should be most impressive upon a court, particularly when the court weighs against that the fact that the persons seeking to

(*please turn to page 2*)

Ed Peck, K6AN; Sylvan Mayer, W6KOX; Charlie Weber, WB6RPK, and Art Sinclair, W6FKQ.



Ed Peck, K6AN, at his office at anti-jammers meeting.



Historic key now silent

by Ero Erickson, W9HPJ

We have another SILENT Key — a radio operator, in its classic sense, who, in real life, was doubly silent about confidential messages, so true to the code of all radio operators, especially to the traditions and regulations of the U.S. Navy.

Commander Frederick H. Schnell (ret.) died in Bradenton, Florida on 7 April 1975 at 83, with his retirement call letters of the past 20 years, W4CF.

Call letters were always a part of Fred's life and when radio history was imminent it was Schnell who was there "on deck". When he was radio operator during World War I (to "end all wars") he heard telegraphic signals which set him apart as the only one beside President Wilson who knew that the war was over, 3 days before anyone else, including General "Black Jack" Pershing, the leader of the A.E.F.

He was worried that somehow he might inadvertently disclose this fact, which he kept a secret even from his wife. On the 7th of November, 1918, he hung around after his radio watch (of many months of it) to hear the German Propaganda transmission (in code), when he heard "GM OMS de POZ" from the German operator. The plural of GM (old man) excited Fred because it had never been heard at the monitoring station. He looked around for a typewriter because he felt that something big was up. He found paper and a pencil and spent 20 minutes copying what became the Kaiser's Armistice (surrender message. Portions were dispatched to President Wilson, all of which is historic record in precise Schnellian long hand, now proudly displayed by Naval Communications. For his alertness Schnell was taken to France by President Wilson as his personal radio operator during the formation of the League of Nations.

This was "long wave" radio, but Fred Schnell went on to pioneer short wave radio — 100 meters and down. He "sold" the Navy on its merits. Again, according to his own admission, he was blessed with Divine Luck. In the current QST of April, 1975, in an item, "Fifty Years Ago This Month" (1925), we read — "The U.S. Navy wants to learn more about short wave communications' effectiveness, and has put Lt. Fred Schnell on active duty (with 7 months' active duty with leave from his ARRL Communications Manager post.) He will join the fleet on its Australasian cruise this summer to work ham maritime mobile." According to W9BRD, DX editor of QST, his

(*please turn to page 35*)

Dayton

by Bill DeWitt, W2DD

Rack up another smashing success for the Dayton Amateur Radio Association!

Amateurs 10,000 strong attended the DARA's Hamvention April 25, 26, 27. Banquet attendance was 1,600. No one who attended will ever forget the sea of campers, trucks, and private cars comprising the absolutely gigantic flea market. It was a "really big show!"

Highlights of the Saturday night banquet included the issuance of two highly coveted awards and an address by Ambassador Armin H. Meyer, W3ACE.

Winner of the 1975 Hamvention Amateur of the Year Award was Dick Daniels, WA4DGU, of Arlington, VA. Dick's work in practically every phase of Satellite work was the basis for his award. The Honorable Stanley Phillips, who delivered the award, listed license procurement, data supplied at FCC hearings, design, construction, and the installation of satellite gear in space vehicles among Dick's outstanding achievements.

Gene Kundert, W8YEK, of Delphos, Ohio, was given the 1975 Hamvention Achievement Award for being the first amateur in the world to complete a two-way exchange of SSTV pictures with 100 countries. Gene has them all confirmed, and is on his way to the second hundred.

Ambassador Meyer, who has served as U.S. Ambassador to Japan, Iran, and Lebanon, delivered a thought provoking address. The main thrust of his talk was to encourage the recognition of Amateur Radio as a human resource not only here in the United States, but also in the so-called "emerging countries" where any form of radio communication is sometimes regarded with suspicion. Ambassador Meyer noted that the use of radio and electronics by amateurs could greatly enhance the potential supply of technicians and engineers in countries where technological progress has been very limited until recently.

Looking forward to the 1979 ITU Conference, Ambassador Meyer stressed the point that for the continuance of viable frequency allocations and reasonable operating privileges, amateurs everywhere must take action to persuade their governments that Amateur Radio is in each country's own interest, a human resource rather than an insignificant hobby.

Master of Ceremonies for the Banquet was Dan Graves, WN8KST, whose Art Carney-like style kept the 'vention crowd wide awake and happy to the end of the festivities.

The Hamvention Committee is already at work on next year's program, but everyone who made the scene this year will tell you that they'll have a tough time topping '75. A suggestion to Hamfest Committees everywhere — if you want a post-graduate course in "Hamfestmanship," go to Dayton and learn from the "Pros!" Congratulations to President Bob Wilson, W8JRN, and his DARA Hamvention Committee!

Sylvan Mayer, W6KOX, and Ed Peck, K6AN.

WCARS

(*continued from page 1*)

put us out of business have absolutely no other justification or reason for their actions except malice."

Scully said he, and he was certain also many others, would be willing to contribute substantially to such an effort.

Peck has said he will donate his research and his time during the trial. Several other attorneys including Howard Shepherd, W6QJW; John Dundas, WA6ZCO; and Albin Fisher, W7UV, have volunteered their services. And a Los Angeles judge has said he wants to be kept informed about the matter.

While the attorneys have donated their time and effort, there are still "out-of-pocket" expenses that must be met (phone calls, depositions, etc.), and thus the "Western All-Frequency Amateur Interference Fund" has been set up. Donations should be made out to "WCARS" and sent to the Bank of America, 555 Broadway, Millbrae, CA 94030, Attn: Mrs. Helga Lind.

Mayer. (W6KOX) pointed out that while WCARS is spearheading the effort, the anti-jamming actions will embrace all portions of the spectrum available to amateurs. He called the 2-meter jammer "even more despicable", for WCARS can change frequencies but the repeater cannot. Mayer used an example, saying, "If WR6ABM needs funds for a battle against a jammer in their area they can apply for funds from the Interference Fund."

Mayer said the funds would be used for expenses such as bringing into court commercial electronic engineers as "expert witnesses."

Peck outlined the steps to be taken. He said tape recordings should be made, direction finding headings and field strength levels noted, and affidavits made. There should be affidavits from three amateurs in each case. He said if a radio club feels they have good, strong evidence and they have a case, "submit the facts to me." He said he looks forward to being consulted by any radio group that feels they have legally sufficient evidence.

Peck said he would ask for prosecution, either through the FCC or the U.S. Attorney's office, on criminal charges. If those should not produce reasonable action it will go into the courtroom as a civil case.

Ed Peck, K6AN, was licensed in 1934 as W6LDD. He has an Extra class license and is on the DX Honor Roll. During World War II he was a Lt. Col. in the USAF as a VHF and Radar Communications Officer. He is a graduate of the University of California and received his law training at Boalt Hall and Hastings Law School. He started his law practice in 1947 and specializes in civil trials. He is a trustee of the Northern California DX Club Foundation and a member of the Grizzly Peak Amateur Radio Club which operates WR6ABM. He is well known for helping and advising amateurs in tower and zoning cases for many years.

When asked why he personally got involved in the anti-jamming effort he said, "This is ridiculous; these people are breaking up a worthwhile amateur radio activity. I am upset about what happens on WCARS and the repeaters. This could be a landmark case and when a couple of them get busted . . ."

The first meeting lasted several hours. Other topics discussed were the setting up of technical committees (UHF and HF) to coordinate the tracking down of the unidentified jammers and obtaining an attorney in Nevada to join in the effort.

FCC officials have said (in private conversation), "We'd really like to get those guys," speaking specifically of two individuals. As an assist towards that goal, the recent Pacific Division ARRL convention in Fresno included information about the "war-chest" for the interference fund with every registration packet.

The concerned amateurs/attorneys are now working together on the injunction idea and say they will be clear cut, easy to prove, expensive for the defendants, easy to enforce (contempt of court), and will bring fine and/or imprisonment to the jammers.

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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Harvey Pierce honored by 3M radio club

Harvey Pierce is a rich man, not in material wealth, but in his contributions to Amateur Radio.

What makes Harvey's story unusual is that he is paralyzed with cerebral palsy and confined to bed at the White Bear Lake Health Care Center, 1510 Webber St., White Bear Lake, MN 55110.

Recently Harvey was visited by a group of radio operators from 3M Company's amateur radio club and was presented with an 'Outstanding Achievement Award' certificate" . . . for significant contributions to Amateur Radio." The award is presented annually.

"Harvey's life is inspiring," said Jerry Groeneveld, president of the 60-member "Scotch Hams" club (station call letters WBØBQG).

When he was just a youth, Harvey's prospects for success weren't bright. His physical handicap left him with only slight use of his legs and arms. During boyhood he became interested in electricity and radio communications and excelled.

Harvey became one of the country's early licensed amateur radio operators back in the 1920's and a pioneer in radio communications development.

He developed remote radio controls to help operators like himself who have difficulty using their hands. The controls consist of a receiver tuner and a device to tune radio directional beams.

He invented the electronic "Mickey Miker," a precision capacity testing device, and copyrighted it in 1962 through Amateur Radio Publishing Co.

During more than 50 years of radio operating Harvey assisted educators on electronics problems and even helped prepare lectures on the subject for college students. He also authored numerous trade magazine articles on radio, including a complete instruction manual on the principle, assembly and use of the "Mickey Miker" tester.

"Harvey is a global communicator," a close and long-time friend said. "His radio contacts over the years extend to hams in over 340 countries, and he still has an international ham following."

Although Harvey's famous "WØOPA" White Bear Lake radio call letters aren't heard anymore, or known by newer operators, his inspiration and contributions have influenced most, if not all, of the over 1,000 amateurs in the Twin Cities area and more than 4,000 in the state.

Navy's "Mr. Hurricane" comes back to home port

Eunice G. Bernon, K8ONA

Dressed in a tuxedo, Jerry Murphy, K8YUW, Lakewood, operated from the lead car which provided amateur radio communications for the St. Patrick's Day parade.

For Murphy it was a three-fold, emotion-packed occasion. He was celebrating the holiday in Cleveland, volunteering his services as a local amateur radio operator, and marking his homecoming and retirement after 20 years' active duty all over the world with the U.S. Navy Seabees.

Murphy joined the Navy right after graduation from Lakewood High School in 1954.

"I was bitten hard by the amateur radio bug, and I'll never forget it," he said.

"When I was stationed on Midway Island, I was surprised to be able to talk to a friend back home by telephone patch. I thank Larry Hassel, W8SUS, of Parma Heights for that."

"One year later I got my license, and I've been active ever since," Murphy recalled.

Murphy's license altered the course of his military career when he was stationed at Guantanamo Bay. Since he was the only radio amateur in the Atlantic Seabees, Murphy was sent to Davisville, R.I., to operate K1NAP at the U.S. Navy Construction Battalion Center.

Murphy also instructed classes in amateur radio and he manned telephone patch schedules with Seabee units and ships in the Antarctic and Cuba.

It was at this point that Murphy earned himself the permanent title of "Mr. Hurricane."

Murphy recalled, "Hurricane Betsy was very large and destructive. A Hurricane Watch Net was established in Florida, but when it became obvious that it would become the center of the storm I was selected as primary net control station."

"From that moment I vowed to serve my fellow man via Amateur Radio," he said.

After three years in Vietnam, Murphy was sent to Gulfport, Miss. for a well deserved shore duty assignment.

But for "Mr. Hurricane" there was no rest. Hurricane Camille kicked up her heels and Murphy operated around the clock on the Hurricane Net. In a few weeks he passed 3,000 messages out of the disaster area, via amateur radio, to concerned relatives.

Senior Chief Petty Officer Murphy's career is completed. His family is very proud of his many military decorations.

Now radio operator Murphy, K8YUW, is setting up his amateur station, with pride in the Drake TR-3 and TR-4 transceivers.

Wall displays indicate life membership in the ARRL, Delta Division-Assistant Director, A-1 Operator Award, public service awards and net certificates.

Most prominent is the Distinguished Service Award from the Mississippi Civil Defense Council for Murphy's efforts during that state's tornadoes and hurricanes.

Murphy is ready to resume check-ins with the YL-ISSB Net, Guardian Angel Net, MidCARS, ECARS, and 75- 80-meter public service nets.

Recipients will be impressed by Murphy's red, white and blue QSL cards. They reflect his pride in his country and the service he has rendered.

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Emergency traffic

by Polly Vincent

One of the fundamental rules and regulations of the FCC reads as follows:

"Recognition and enhancement of the value of the amateur service to the public as a voluntary non-commercial communication service, particularly with respect to providing emergency communications." (97.1)

The above was well exemplified by one of our members, Red Monroe, K6OWN, who on the night of 21 March was called on to try and reach a small town in Sao Paulo, Brazil.

A Concord, CA father lay seriously ill in a hospital and his family tried desperately to get word to their son in Brazil. The parents had not seen their son for 2 years and, because of a recent move, he did not have a telephone.

All that evening Red Monroe, Al Nielsen and Pete Peterson tried to make contact, but it was not until the next day that Red, through a Kentucky net, successfully reached Curtis Goodsen, PY2ZBG, an amateur in Compinas, Sao Paulo who lived so close to the son that he went immediately to his home with the message.

Only those involved can know the satisfaction of accomplishing what seemed almost impossible, but we can appreciate the efforts made on behalf of one family united in this way while we tell ourselves: "I'm glad to be a "radio amateur."

"Carrier", Mount Diablo ARC

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The Bones of an Organization

The body of almost every organization has four kinds of bones:

The Wishbones — who spend all their time wishing someone else would do the work.

The Jawbones — who do all the talking but little else.

The Knucklebones — who knock everything that anybody else tries to do.

The Backbones — who get under the load and do the work.

(from: "Ham Shack Gossip,"

Amateurs intending to apply for reciprocal operating permission in other countries for travel this summer should not delay sending applications.

November 1974 **QST**, page 92, carries a list of addresses from which detailed information may be obtained for most countries of the world. ARRL headquarters can supply information on others. Forms for U.S. amateurs intending to visit Canada, and for Canadian amateurs intending to visit the U.S., are available from ARRL headquarters.

•

Allen Katz, K2UYH, and C. Maas, VE7BBG, are working together to produce a 432 EME Newsletter for those involved who want to know what equipment works, what has been done, who's worked whom, schedules — the works.

When the moon is high it is not only the werewolves that come out these nights. Drop a SASE to Dr. Allen Katz, Trenton State College, Trenton, NJ 08625 for a copy.

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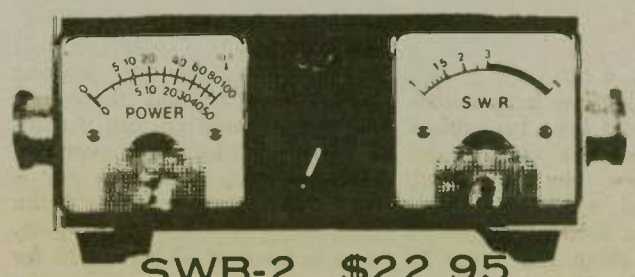

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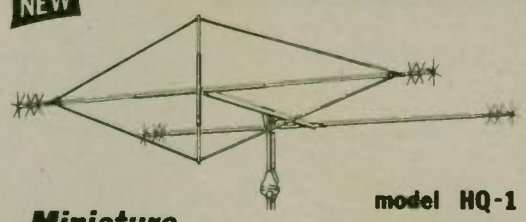

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International DX Convention

DX Forum

The DX Forum was chaired by Gary Stilwell, W6NJU, member of the ARRL DX Advisory Committee, and Worldradio DX editor.

The first topic up was DXCC Rule 9. At present an amateur may keep all his credits if, when changing location, he stays within the same call area. If he moves out of his call area he loses his credits if he moves more than 150 miles. The inequality of this is obvious when it can be seen that someone could move from Seattle to Phoenix and keep his credits and someone else moving the same distance, say New York City to Miami, would lose them. The distance from El Paso to Houston is about the same as from Chicago to New York. In one case the credits are retained, in the other they are lost.

This dilemma has been kicked around for a long time and was given to a subcommittee of the DX Advisory Committee. They have asked for more time to study the problem and get input. They will give their recommendation at the January 1976 ARRL Board meeting.

Another topic discussed was if there should be special endorsements on DXCC for modes such as SSTV, RTTY, mobile, etc.

Explanations were given for why deleted countries are not counted for five-band DXCC. They must be active countries at the time of application. And it was told that the countries list is updated two or three times a year.

Another topic was should an operator get credit for a country if he goes there on a DXpedition. This has been voted down before by the DXAC. Marti Laine, OH2BH, one of the leading DXpeditioners, said there are places he would go, but if can't get the credit for it and everyone else can, why should he go? A straw vote was taken at the forum and the overwhelming majority was in favor of giving credit for those who operate from the location. It was brought out that possibly there should be some qualification such as having to make at least 500 contacts from the DXpedition location.

Bill Johnson, W6MUR, addressed the group and asked support for his petition before the FCC. Bill talked about the international broadcast intruders on the 40 and 80 meter band and said they honor international agreements about as well as the North Vietnamese. To help fight against the illegal intruders and to further technical ability Bill's petition asked that the power limit be removed in the Extra class portions of the band. A great cheer went up but turned to a groan when they heard Bill continue and say "for stations in rural areas."

Jack Troster, W6ISQ, gave a report on activities of the Northern California DX Foundation. He told that the Kingman Reef DXpedition still has one thousand contacts for which operators haven't sent QSL cards in for confirmation. He talked about the QRP experiments by the Kingman crew which were under the direction of two doctoral candidates at Stanford and Dr. Oscar Villard, W6QYT. Troster mentioned getting reports from the East Coast saying they heard the coded transmission on 15 meters at two o'clock in the morning when the DXpedition was transmitting with one-tenth of a watt. The well-known humor writer for QST went on to tell of the Foundation sending out transceivers and that Market Reef, OJØ, was one recipient. He mentioned that the few amateurs in San Marino (with old rigs) were having TVI problems and asked for 100 TVI filters to go on the TV sets. He also reported on the Foundation working with AMSAT in making other countries available, and OSCAR rigs for DXpeditions. Another project was working with OSCAR on beacons.

The topic that brought the longest and most heated discussion was fees for the DXCC award and endorsements. Some felt there shouldn't be charges for the awards, and others who felt "we should pay our way" believed the DXers were being picked on because they were the only ones being asked to pay for awards. They asked why didn't those who applied for Worked All States, Brass Pounders Medallions, Rag Chewers Club, etc. be charged?

Ellen White, W1YL, Deputy Communications Manager, had the facts and figures with her and showed that administering the DXCC program was the most expensive award program of all of them. She said that DXCC was just the first of the services to be made self-sufficient and soon a charge would be announced for the Repeater Directory. Ellen gave a detailed breakdown about the costs to process DXCC.

Southwestern Division Director John Griggs, W6KW, said inflation has put a crimp in the ARRL budget and the directors must make certain that income equals outgo. He said those who get a service should pay for it. He told that all of the costs of operating ARRL have gone up. They have raised the cost of the annual dues and have increased the prices of the many League publications.

A straw vote was taken and it was overwhelmingly in favor of the matter being taken back to the Board for further study. The group gathered at the forum felt that if fees were necessary for awards then all such fees should be announced at once.

After the DX forum the attendees dressed for dinner and then attended the "Personality Improvement Hour (and a half)" which was hosted by the leader of the Kingman Reef Crew, Bob Ferrero, K6AHV, owner of Ham Radio Outlet in Burlingame, CA.

(*please turn to page 6*)

Jay Holliday, W6EJJ

Ken Keeler, W6PAA

Fred Capossela, K6SSS

Jim Maxwell, K6AQ

Jack Troster, W6ISQ

After the dinner a "beer-bust" was thrown which lasted into the wee hours.

The Sunday morning breakfast featured a DX Quiz in which John Troster, W6ISQ, played tape recordings made by various DX stations. Clues were given by those on the tape as to their identity and those who guessed the most correctly were awarded prizes.

Sam Canter, W6TSQ, had a special presentation in which several of the "big guns" were lined up and blindfolded. Then the "little guns," armed with foam balls, could get their "revenge" — firing squad style.

Armond Noble, W6AJY, editor of **Worldradio**, spoke on "How will you shape Amateur Radio?". Gary Stilwell, W6NJU, presented a slide show on his DXpedition to the New Hebrides during the CQ CW contest operating as YJ8GS.

Contests

The Contest Forum was chaired by Ken Keeler, W6PAA, of the ARRL Contest Advisory Committee; Fred Capossela, K6SSS, (ex-W2IWC) Director of CQ Magazine contests; and Ellen White, W1YL, Deputy Communications Manager, ARRL.

Discussed was the recent move of CQ to have contests broken down into "high band" and "low band" as well as "all-band" entries. Input was quite in favor of the move. But, and that is what a forum is for, there was disagreement. It was said that a TI2 who would before go on 80 for 15 minutes, now doesn't. Another said someone getting third place in the all band competition could be working harder than a person who is first place in a band category. A show of hands was asked for and by a three-to-one majority the low/high/all was favored.

Another topic was the "guest operator" doing his thing at the "super-station". There are those who feel that someone with the means and the land is able to attract a "hot-shot" operator and such should be prohibited. Others feel that the people who build "super-stations" may not be the personality types to be the hot contest operators. Those at the Forum were asked if they have strong opinions to write to the League or Contest Committees.

Other ideas kicked around included moving the "super-station" out of section competition and putting them in a "national flight". Another said that conditions can be quite different for a station in Washington or California so what would the difference be for stations at opposite ends of the country?

The idea of the Forum was to be "brainstorming", where all ideas were thrown out into the arena. One idea was to encourage more DX station entries, that a certificate be given to DX stations who make 1,000 or more contacts. But then someone said, "It takes more to make 1,000 contacts over here than overseas."

Another subject talked about over the years is the contests that take four weekends (two weekends per mode). A vote to reduce the contests to go to one weekend per mode was nearly unanimous.

Ted Gillette, W6HX, asked for a multiplier for 10-meter contacts saying, "Use it or lose it."

Fred Capossela, K6SSS, said he is trying to make the CQ contests "as much fun as possible and also to see that everybody goes by the same rules." He said CQ had printed their contest results earlier than ever before and new features were the top USA scores broken out and a remarks column on contests titled "QRM", and he asked for input. He told that the CQ Contest Advisory Committee will be enlarged to 15 with the addition of: Fred Laun, W9SZR; Jim Neiger, W6BHY; Phil Goetz, W6DQX; Earl Weaver, W6JPH; Glen Rattmann, W6MAR; and Larry Brockman, WA6EPQ.

Fred went on to ask for "creative complaining" saying, "Tell us everything that bothers you about the contest." He also asked for some help, telling that about two weeks before the contest CQ will get bundles of overseas requests for 100 or 200 or 300 log pages and enclosed will be one IRC. Fred asked contest operators to ask their DX friends if they needed log sheets. Also ask them if they have access to a copier so that just one log sheet could be sent and copies could be made. If they say yes, drop a postcard to CQ and the log sheet will be sent. Please do this three or four months ahead.

A previously discussed matter bobbed up again and Ellen White, W1YL, addressed it by saying, regarding the two weekends vs. one weekend per mode, that amateurs making their feelings known (before this meeting) had voted overwhelmingly to "keep it the way it is." It has been previously said that many amateurs can't get into both weekends but still want the fun of contesting or picking up new countries. Having it for two weekends allows more people to get in some time. On the other hand, those who know they can't get in both weekends say they won't get in because they can't get a competitive score. (Such an issue is known as the two-edged sword.)

Ken Keeler, W6PAA, said there is some thought into actually splitting the weekends into separate contests. He told that with the upcoming World Administrative Radio Conference, Vic Clark, W4KFC, (ARRL Vice-President) is looking into a new contest event sponsored by the IARU. This event would be designed to promote world-wide concern for our frequencies. Also being considered was a 1976 commemorative contest.

Caposella said CQ was considering high-band and low-band weekends as well as ways to encourage contest QRP, OSCAR, RTTY and SSTV.

The idea of the operator not removing dupes from his log was brought up. As the forty-five minute forum was closing Marti Laine, OH2BH, addressed the group on the problem faced by the multi-operator single-transmitter contest entries. He showed different methods of multiple rigs and multiple antennas set up and how one at a time would be on the air. He said it "was disappointing competing with five station set-ups with your one station." He asked for support against such operations.

Bandwidth

A technique that could revolutionize the communications field was demonstrated by Jim Maxwell, Ph.D., K6AQ.

It has a startling two-fold application as it pertains to Amateur Radio. The idea is to reduce the spectrum space needed to send a voice signal. First, and the most obvious, is that with amateur voice signals taking up half the space they now take up, interference problems would decline. Second, as fixed frequency commercial users adapt the technique and essentially have twice the frequencies available to them, the demand for more frequencies on their part (and their asking for amateur frequencies) would subside.

Unfortunately, the Contest Forum was held at the same time and thus many were not given the opportunity of hearing and seeing Maxwell's excellent presentation on a subject which will have far-reaching consequences for Amateur Radio.

He presented the subject with tape recordings and flip charts. The history of the many attempts to reduce bandwidth was presented. And there was humor, for as Jim put it (referring to putting a 3.5 kHz voice signal into a 1.75 kHz channel), "My first reaction was a negative one. I said aw baloney. Everybody knows it just can't be done, it won't fit and somebody was trying to spoof me."

The SCM for the Santa Clara Valley told, however, with the advent of integrated circuits and new filter design techniques, what has been attempted for 40 years is now practical.

In a masterful introduction to an amateur radio audience Maxwell emphasized the advantages this system would offer. Emphasized was the reduction in band congestion and improvement in signal-to-noise ratio. He said there did exist the potential of weak signal detection on phone using the same bandwidths as on CW.

Mentioned was the early research at Bell Labs, Hughes and TRW. The demonstration unit was from the research labs at Lockheed in Sunnyvale where Maxwell is employed.

To slide into the subject via analogy Maxwell demonstrated the technique developed to help the blind "read" faster with their talking books.

"It has been shown that people can understand spoken English a lot faster than they can speak it. If we put a book on tape and speed it up, however, the pitch rises at the same rate as the speed-up and you get a "chipmunk" effect. People have been working for many years to devise a technique that with the speed-up you would retain normal pitch."

He told about the various sampling methods and that they suffered from poor quality. Jim had with him the LM-312 pitch normalizer from Lockheed and used it to demonstrate the newer techniques.

An excerpt from the Gettysburg Address was used. A tape was played at normal speed, then at double speed. The word rate doubled but so did the pitch, rising one octave.

Then the same speech (at double speed) was sent through the LM-312. The words could be easily followed and understood. He explained the process was called pitch normalization.

Maxwell told the audience that what he had shown was a "piker" compared to what is possible and what is being worked on right now in the laboratories. Comparing it to vocoders used by telephone companies he said they sounded too artificial. The pitch normalizing system sounds much better and can be made to sound even better than it does now.

An article such as this can not do justice to his presentation as he showed information rate of speech (50 bits a second), the redundancy, fundamental frequency and harmonics, etc.

Having set forth the premise with the audio tapes he showed with diagrams on the flip charts the application to Amateur Radio. Detailed was how a bank of filters, very closely spaced, would look to the voice from 50 Hz to 3.5 kHz. Then, sampling the voice, the output of the filters could be fed into a divide-by-two network and be transmitted. At the receiver the filter system multiplies by two and it is expanded.

He then played a tape in which speech was sent at 1750 Hz wide (as observed on a spectrum analyzer) and then restored at the receiving end. With enthusiasm he told that they had been conducting tests using the system on-the-air on the 15-meter band.

The system demonstrated was a two-to-one bandwith compression and he said there is a three-to-one system, and a ten-to-one is being worked on.

Maxwell outlined the problems that had to be resolved. Since the voice is AM it generates sidebands. The sidebands move into the other filters and there is phase distortion in the filters. But these problems are being solved because of better components and more advanced filter concepts are being put together.

Because the system is unique it is being patented. Maxwell said that an article in QST will soon appear to be written by designers at Lockheed.

(*please turn to page 14*)

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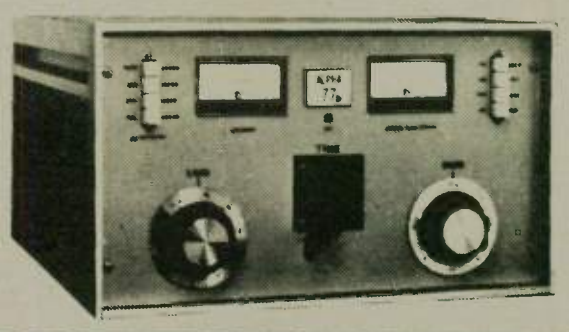

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The world of 40 words per minute and above

Samuel Berg, WB2EWH

I was just recovering from the stress of winning the 35 word per minute proficiency certificate sticker from W1AW. I had endured fully as many troubles as Christian ever had experienced in his allegorical Pilgrims Progress. I felt I had achieved, that I was at the top.

But as I was licking, complacently, the cream off the milk like the smug cat, I cast my eyes over the columns of the August 1974 **QST** magazine. There an item caught my eye. It was a sentence that read, "40 wpm Anybody?" I took a second look — a quick re-look. Could I be reading right? Were people trying for 40 wpm certificates from W1AW? This could not be! It would be like Sir Galahad going out to search for the Holy Grail.

It was true. People were actually going to vie for a 40 wpm sticker from W1AW. I read further. The Connecticut Wireless Association was offering certificates not only for 40 wpm, as was W1AW, but also for 45, 50, 55 and 60. It would not have taken a very sensitive seismograph to have registered the crash of my fallen pride. At 60 wpm only a Ph.D in code could understand such transmission speeds.

But there it was, a world of 40 wpm and above. The article went on to say, "The Connecticut Wireless Association conducts a program, including certification, that extends all the way up to sixty (yep 60!). The administrator of that program is a guy with the call W1NJM (George Hart, Communications Dept. Mgr., ARRL). Where can you get 40 wpm practice? Try W1EIA or W1NJM, 3636/7085 kHz, 0130 UTC Monday (9:30 p.m. EDST Sunday). If you can't hear them, we understand William Smith, K6DYX, sends high speed practice, but we don't know the schedule."

I had heard vaguely, in the distant past, that high speed code practice was being transmitted but it meant nothing to me. Who could copy 45, 50, 55 or 60 wpm? It was like being invited to a weight lifting session to take part in a 500 pound snatch.

However, I tuned in at 3636 at the first opportunity on a semi-annual certificate proficiency test. The preliminary remarks were transmitted at 25 wpm which I could handle. The preamble before the actual test went like this: Transmissions will begin at exactly 0130 GMT followed by 40 wpm at 0150 GMT, 45 wpm at 0200, 50 at 0210, 55 wpm at 0220, and 60 at 0230 GMT. The idea is to copy for one minute consecutively solid copy to qualify certification at that speed. If you have already qualified from a previous code test, you are eligible to do so again, at any speed, lower or higher, but you may qualify for only one speed for this transmission. Copy may be typed or rewritten for eligibility, but any recopied matter that contains recopying errors will be judged as errors in original copy. So be careful in your copy and send it to George Hart, W1NJM, 66 Highland Street, Newington, Connecticut 06111. Then sit back and await results, which may be a long time coming, and include with your copy a self-addressed stamped envelope. This test is run on the honor system. Anyone can cheat who has a mind to, but what is the fun in that?

Then he winds up the test: AR QST DE W1NJM 3636/7085 kHz. With the 60 wpm transmission just completed, concludes our high speed code test certificate run. If you think you copied for a minute at any speed, send it along with a self-addressed stamped envelope to George Hart, W1NJM, 66 Highland Street, Newington, Connecticut 06111. If your copy checks out, you will receive without charge a handsome certificate attesting your superior skill at this speed.

Then follows what must be long hours of dedicated work to check copy and issue certificates.

What kind of a guy is this man with the call sign W1NJM, who devotes himself to this high speed code program? His work is entirely voluntary, utterly alone. Hard work and no pay. He plans the transmissions, cuts the tape, issues instructions, checks submitted copies, issues certificates, all on his own time. The higher the speeds, the more work is involved in tape preparation.

In the CW world he is an authority and has written many articles on the art of code language. As Communications Manager for the American Radio Relay League he is a busy man. He is also trustee of the Connecticut Wireless Association. Busy though he is, he is always ready to help anyone in progressing in CW efficiency.

For example: I had occasion to appeal to him for assistance to help me get to 35 wpm from the plateau of 30 wpm in which I was wallowing. He said that the problem is to recognize the sound of a syllable or a word as a sound in itself, not as a combination of dits and dahs. He gave me this illustration: For example, when you hear the "Brooklyn," your mind does not stop to analyze that it is — a voice stop followed by a liquid — a hollow lungant — a gutteral stop — a liquid — a short lungant — another voiced stop (forgive me, some of these terms are coined). No, the sound of the word directly triggers reflexes and conveys an instantaneous impression to your brain — a process 1000 per cent more complicated and intricate and difficult than a similar process involving only three units — a short sound, a long sound, and spaces between them.

He did add that some people are slow at picking it up — slower than others, anyway. I felt that I might qualify for the slow category. I know that to learn to talk and read with any degree of fluency I had to go through the fourth grade reader, which is to say that I had to spend about nine years of my life (starting at five in the first grade with its a,b,c's and progressing through the fourth grade) in order to get just a bowing acquaintance with the world of talk and read. So I felt I should have no complaint about taking as long as I did to read code faster. Let me give a table of my pedestrian rate in getting to 35 wpm.

Wp M	Date Started	Date Passed test	Elapsed Time
13	Feb., 1962	May 1, 1962	3 months
15	May 1, 1962	Aug. 22, 1962	3 months
20	Aug. 22, 1962	Jan. 16, 1963	5 months
25	Jan. 16, 1963	Mar. 17, 1964	14 months
30	Mar. 17, 1964	Jan. 14, 1965	10 months
35	Jan. 14, 1965	Jan. 12, 1972	84 months (7 years)

I had also asked him about the value of working with the typewriter in receiving code. It seemed like such a slow process. I figured it out this way: when A is sent over the air (1) my ear hears dit dah; (2) my brain takes some time out to translate this into, "Let's see, oh, yes, that is A," (3) the brain then tells the hand that it is an A coming over the air; (4) the hand says, "A, where is A on the typewriter? Oh, yes, it is the character on the left end of the second row from the bottom,"; (5) then, after some meditation, it strikes A. All this has to be done before the next letter comes over the air.

He said that typing code is different from copying in long hand. It's a different mental transfer process, but it is not more difficult. On the contrary, it is easier and faster and more accurate and readable, once you get the lines of coordination working from your brain to your typing ability instead of from your brain to your writing ability. Fascinating subject — code — says Mr. Hart.

Hart says that when he was a kid, he copied 55 wpm (on the mill, of course), using hunt and peck. He started to learn code at 12. He can scarcely remember when he did not know the code; he sort of absorbed it by osmosis. He does not remember anything about the learning process except that he recognized certain things by their sound (like CQ, QST, his brother's call letters, certain procedure signals) and eventually started recognizing words and syllables. He never sat down and memorized a bunch of dots and dashes. He still can understand everything at 55, most of it at 60, and parts of it (phrases) at 65. Somehow, however, even at fantastic speeds over 100, he can usually tell if the tape transmitter is making mistakes. Again, it is the sound of the code that tells him. Without knowing just why, when it is dropping dits even over 100, he can tell. This comes only from years of preparing high speed code tapes. To save time he often records at twice or four times the desired speed and plays it back for keying at half or quarter the speed. Most of W1EIA's code practice comes from pre-recorded audio tapes which he recorded at higher speeds than the speed heard on playback on transmissions.

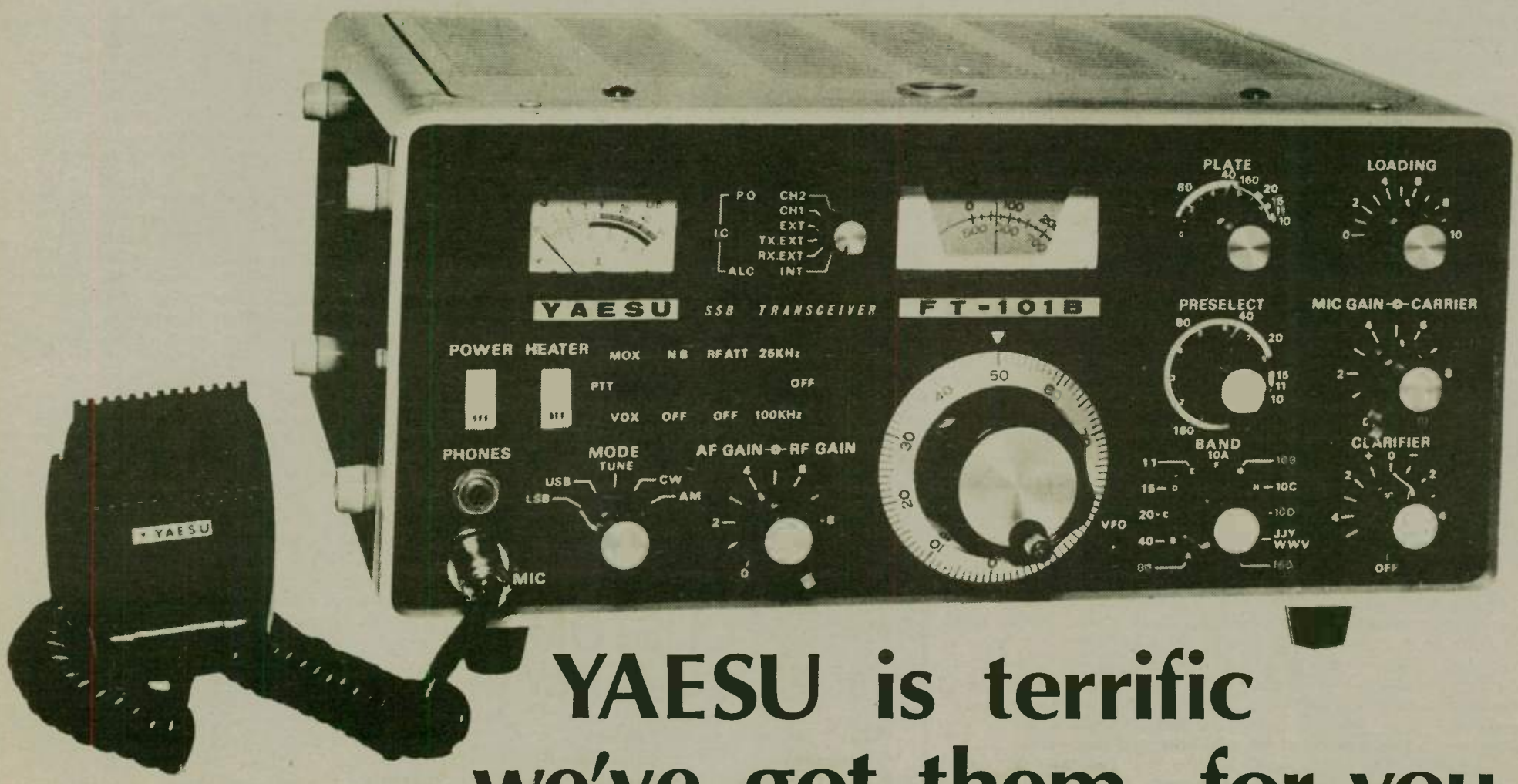
His high speed code practice sessions are attended by many code enthusiasts. This is brought out in later transmissions during his introductory remarks when he broadcasts the call signs of winners of certificates.

Working up to 40 wpm is not such a huge job for some. For those with fast auditory reactions it is a breeze. For example: a young lady, Miss Cyndy Smith, WB6TZK, says "My biggest help was through QSOs with operators that were fast enough to improve my speed. As a Novice, in 1972, I had my CW speed up to 25 wpm by the end of the summer. After almost a year I got my General class license. QSOs with these operators almost every day, and for several hours on week ends, was the key to successful CW QRQ operating and lots of CW skills. Our QSOs average about 30 wpm. Now I can copy on paper up to 35 wpm and 50 wpm in my head. . . Beats sweating out code practice records and W1AW!"

I was talking with another 40 wpm and over man, Robert Anders, W2RA, who has held his license since 1917 and has about 200 countries on his DXCC list. He got so he could read 40 to 50 wpm in his head. He does very little SSB; he is an ardent CW fan. He used to send 30 to 40 wpm with a bug but just recently he had a heart attack and his hand trembles and shakes so much that he has to use a straight key. He can manage only 15-17 wpm now in sending, but he tells me that with his friends in Australia or New Zealand or wherever they may be, he sends his 15 to 17 wpm and they buzz back to him at 40 to 50 wpm. He just reads their transmissions in his head. I asked him how long it took him to read 40 to 50 wpm in his head. He said, "Well, I have been at it for years." I asked, "Was it more than seven years?" (thinking of my own time to get 35 wpm), and he said that it was much longer. So maybe one ought not succumb to being a drop out at 35 wpm.

Mr. Hart spends hours of dedicated work on this high speed activity, all on his own time. He transmits tests in March and September. I feel that his zeal can be compared to that of the monks of the old days, before printing, who devoted themselves to unrequited hours of selfless application to the work of writing books in longhand. Nowhere in this land can we find a comparison to George Hart's practice sessions or to his contributions to the art of communi-

(*please turn to page 32*)



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Fred Laun, W9SZR

Fred Laun, W9SZR, one of the world's top DX and contest operators, was kidnapped, shot and later released by Argentine guerillas. (See **Worldradio** June 1974) Earlier this year Laun, who has held calls LU5HFI, HI8XAL, HS3AL, HS5ABD, XV4AL, was presented the highest award of the U.S. Foreign Service, "The Award of Valor," by Secretary of State Dr. Henry Kissinger.

An excerpt from Laun's remarks as banquet speaker at the DX convention:

It's a pleasure to finally make this one and only well-known world-wide event called the Fresno DX Convention. I'm very pleased to be here. It's been my privilege and my pleasure to meet so many people for the first time, people whom I've been talking to from different parts of the world for many years.

I understand from our hosts up here that one thing that everybody in "6" land wants to know is, "Who's the loudest W6 on the band?" I don't know if he's here at the banquet, but I know he's been in the convention sometime during the day. I remember sitting in Viet-Nam during 17 of the 18 months I was there, when I couldn't transmit, so I had a lot of time to listen, make tape recordings and send them back to my good friend Phil Goetz (W6DQX) so he could play them for the honored people that got on them. I remember that I'd be listening to these pile-ups on Sunday mornings (your time) Sunday evenings out there. You would be chasing 9V1's, 9M2's and HS's and people who were over that way, and it seems that about half of you are not interested in calling anyone unless he's already got about 15 people calling him already. (laughter) That's like waving a red flag in front of a W6 bull. You'd hear these guys in there with pretty good stations and they're running with what I understand is a reasonable amount of power, (laughter) like W6CLS, (laughter) and so forth with 20 over 9 signals, just solid copy in there. There was this general 20 over 9 S-meter level and then there would be a signal that would come out of nowhere and just wipe everybody off the band. W6ICJ. (applause)

Frankly, though, down in Argentina, you were all strong. You'd get tired of hearing W6's down there, especially on 40 meters because anytime a W6 comes on 40 meters and calls an LU and there's no other W6's calling him, he's going to get him, because you guys have it made on 40 meters in Argentina for some reason or other. The problem comes when there's several W6's calling at once on 40 meters.

Well, it was just a year and seven days ago that at 8:15 on a Friday morning I had a knock on my door. As usual I had the rig on and was listening around the band. I remember the last call I heard was HI3PC (Marco Cordero), my old friend from the Dominican Republic. I was listening on the 40 meter band. There was a knock on the door. I went and opened the little peep-hole I had and a fellow dressed in a police uniform said, "We're from the police; we want to see your antennas." I should have said, "They're there out in the garden; go take a look at them." But instead I let him in.

He came in with a pistol drawn and behind him a fellow who wasn't in a police uniform, with a little rope that he was manipulating, and then came a third guy. For obvious reasons my eyes riveted on him and stayed riveted on him because he was the one who held the sub-machine gun.

He said, "Put up your hands," and I said, "No." He said it a second time in a louder voice, and I said, "No," and I sat down and said, "You fellows certainly aren't acting like policemen." At that point he looked at his leader and said, "Should I give it to him?" I didn't hear what the answer was, but nothing happened.

One thing that you'd remember from this is how you were totally concentrating on one thing at a time when all this is happening and you don't have any idea what is going on around you.

About this time a fourth fellow came in and he went over and put a big cardboard box down in front of my shack and started going in and bringing out logs and maps and a big index book where I kept a record of everybody that I worked, in alphabetical order, so I would know if I worked somebody before. Obviously, since I spent a great deal of time in making these records up, I was a little concerned that they were all being stolen from me, and it attracted my attention to what he was doing. Right in line with my field of vision at that time I noticed the pistol on the table. So I said to myself, "Laun, if you're ever going to get a chance presented to you on a silver platter, this is it. You've got to get up and grab that thing and try to use it." And I did, and it didn't work, I didn't know how to use the safety; I fired at a blank place on the wall and nothing happened.

Somebody about simultaneously discovered that I had it and shot me in the back.

All the rest was just a jumble of memories and a few questions, beautiful psychedelic dreams. They put me under with some kind of a drug and the only thing I'll say about the incident at this time is that the amateurs in Argentina were wonderful, just like you'd expect amateurs to be all over the world. I felt it before, and I feel it even more now, there's no fraternity like the ham fraternity.

The members of the Cordoba radio club, LU3HAK (Roberto Moyano) most particularly. He was there before the ambulance was when I was released. He helped load me on the ambulance and he and LU6HDV (Carlos Fenosi), LU1HJJ (Oscar Santa Cruz), and LU2HBX (Roberto Cabinallas) set up a rotating watch in the hospital and one of them was by my bedside at all times. They handled all the telephone calls, all the visitors. They got me what I wanted, newspapers, brought in a radio that I could listen to, etc.

When I got to the Canal Zone I was in the hospital and one of the great good fortunes was that I was in that particular hospital. Five of the staff members were amateurs, and when they didn't have anything better to do they were up in my room bringing me magazines and just chewing the fat about Amateur Radio. There was a fellow who I'm sure a lot of you know, Pete Witcosky, KZ5PW, who managed to get past all the security and all the guards and snuck into my room and brought me a radio.

I was flown to the Canal Zone, literally stark naked with just a blanket over me, and my clothes didn't catch up with me for about a month. Pete provided me with a few items of clothing, shoes and things. I had never met any of these guys before in the Canal Zone. There's just nothing like this hobby of ours when you're going overseas.

Thanks to all of you who sent me cards and letters; a great many of you here did. I had intended and do intend to answer each and everyone personally, but I've fallen terribly behind in my correspondence. Your chairman here knows that because he couldn't get an answer out of me when he offered to fly me out here for this and finally had to use a few intermediaries.

How that I've got you as a captive audience here before me I want to read a little quote from **HR-Report** which makes my blood boil a little bit and it's going to be the subject of my main thrust tonight.

It says, "Reciprocal license applicants who plan to be in the U.S. for some time are in for a surprise. The response to their requests will be a letter citing Public Law 93-505."

Incidentally, this public law is a new one just passed. It allows

Don Schliesser, W6MAV
Convention Chairman

foreigners to take the exam and be licensed just like you or me. It's an excellent law. I'm all for it; however, back to **HR-Report**. "The letter that FCC will send in response to such an application has a form 610 current license fee schedule included." Abuses cited in the March 7 HR report which essentially said "too much phone-patching going on by these reciprocal operators in the United States and they're causing too much QRM will hopefully be reduced due to the changed procedure." What this means in effect is that the Commission is thinking very seriously of requiring foreigners who come to this country from a country with which we have a reciprocal licensing agreement, to take the examination instead of automatically getting a license or a permit to operate as they can now.

Gentlemen: I understand the main pressure for this measure came from people who at least call themselves DXers and who are somewhat upset because they've had one too many phone-patches causing QRM on the low end of 20 meters. But do you realize what you are asking to be done with this measure? What you're asking for other countries will apply the same procedure to us.

Now the next time that one of you wants to go HKØ, YBØ or HC8, do you want to take the examination in Spanish before you can operate? If not, then let's let the reciprocal operators in this country operate as they have been operating and not raise any hell about it. Because, exactly what's going to happen is you're going to find that, as a reciprocal measure, other countries are going to take the same measures against us that we take against them. It's only natural. And it's going to result eventually in the inability of "W" operators who go overseas to get any kind of a license or operating permit at all if carried to its logical end. So let's not cut off our noses to spite our faces. We should be as open and willing to allow foreigners who come to this country to operate with full privileges just so that you and I, when we go overseas, can get the necessary permission to operate.

Now we all have our standards; we say that many of these people

(*please turn to page 14*)

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Norm Brooks, K6FO

Some of the dinner crowd at the DX Convention.

The American Radio Relay League

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

continued from last month

During the 1969 ARRL National Convention in Des Moines, Iowa, it was my pleasure to meet and talk briefly with Sen. Barry Goldwater, K7UGA. I hasten to add the call after the name of this distinguished radio amateur, for even though he rose to become a candidate for President of the United States, while talking with amateurs he was more interested in discussing the problems he was having with one of his transmitters rather than any national or international situation.

This illustrates something that I learned about the directors and officers of the ARRL shortly after I became a director. They are all radio amateurs first and league officials second. At the meetings of the board of directors of the League discussion during breaks mostly involves the issues ther under consideration by the board, but talk of one's own amateur radio operations, of DX, of traffic, of contests and other aspects of Amateur Radio is often heard as well.

There are 16 elected ARRL directors who set the general policy of the League. They represent 16 ARRL divisions. These include Canadian, Atlantic, Central, Dakota, Delta, Great Lakes, Hudson, Midwest, New England, Northwestern, Pacific, Roanoke, Rocky Mountain, Southeastern, Southwestern and West Gulf.

To find the division in which you reside, check the SCM/Section list on page 6 of any issue of **QST**, the director address list on page 8 or write to ARRL Headquarters, 225 Main St., Newington, CT 06111 requesting this information.

The information on areas of each division, as well as information on the organizational structure of the League, is available in various ARRL publications including **Operating An Amateur Radio Station**, also available from headquarters.

Elections for division directors and vice-directors are held in alternate years in each of eight divisions, which involves half the board; thus the term of office is two years. Any full member of the League holding at least a General Class license in the United States or an Advanced Amateur Certificate in Canada and having been a full member for at least four years immediately prior to nomination may be a candidate.

In addition, no candidate is eligible who is commercially engaged in the manufacture, sale or rental of radio apparatus capable of being used in radio communication, or is commercially or governmentally engaged in frequency allocation planning, or is commercially engaged in the publication of radio literature intended in whole or part for consumption by radio amateurs.

Announcement of elections each year appears in "Happenings" in the August and September issues of **QST**. Nomination is by a petition of at least ten full member signatures. Deadline for receipt of petitions at headquarters is noon of Sept. 20 of each year.

If there is but one eligible candidate for any office, the candidate is declared elected. When two or more candidates are found eligible, ballots are mailed to full members of that division. Ballots for all contested elections are counted on Nov. 20 of each year.

Ballot count is by a committee of tellers consisting of ARRL officers and members of the executive committee and the counting is observed and certified by an outside accounting firm. This assures that all ballot counts are legal and there is no chance for anyone to alter ballots. All ballots are received in sealed envelopes which are opened only at the time of the count.

Duties of directors are spelled out in the Articles of Association and the by-laws of the League. The major duty is to attend all meetings of the board of directors and represent their division. While this is similar to the duties of members of Congress and state legislatures, the League is a corporation under Connecticut law and the directors are legally and individually responsible for the affairs of the corporation.

As with a democratically elected office, however, the directors are responsible to the members who elect them. Directors use various techniques to determine the wishes and opinions of their membership, including periodic surveys, convention open forums, special meetings with League officials and club representatives, letters from members and visits to club meetings and other amateur radio events.

Directors may appoint assistant directors, not to be confused with the office of vice director, who assist the director in various affairs of the division. There is no limit to the number of assistant directors who may be appointed by the director, nor are any specific duties spelled out in the by-laws. A new appointment at the division level is the office of public relations assistant, a special assistant working in the area of public and press relations.

Other responsibilities of the director include taking part in committee work on the various standing and special committees established by the board. These committees are responsible to the directors and officers and do much of the background work necessary for the preparation of the motions considered by the board. Motions for consideration are often sent to a committee so that further information on the specifics of the proposal may be obtained.

Directors also assist members of their divisions in obtaining the various services available to members, answer letters from members, sign club and network affiliation papers and spend a great deal of time in studying various material including FCC proposals for rule-making and dockets proposing to change amateur radio regulations. In addition, the directors are generally active amateurs in many different areas of Amateur Radio.

While most directors work closely with the SCMs in the various ARRL sections in their division, the director is not responsible for the operation of the Sections. SCMs do not report to the director. In many divisions, the director will appoint each SCM an assistant director. The SCM is responsible to the director for this apointment, but in no way does this appointment make him responsible to the director for the operation of his Section. The operation of ARRL Sections will be discussed in a later article in this series.

Vice-directors are elected in each division at the time of the director election. The vice-director is not an "assistant" to the director, although in many cases the director and vice-director work closely together to manage the affairs of the division. The only duty spelled out for the vice-director is to be ready to take the office of director should the elected director become incapacitated or unable to fulfill his duties, or if he dies in office.

Many members of the League feel that the by-laws should spell out specific duties for the office of vice-director. Since the candidates for director and vice-director are not elected as a team (although some candidates do run for the office of director and vice-director together), the elected director and vice-director may, for various reasons, be unable to work closely together. They may, in fact, work at cross purposes to the extent that neither will be able to function in the best interests of the membership. Unfortunately, this inability to work together is political in nature, but since these are elected offices there will be politics involved with campaigns and when a director is in office.

While we so often think of Amateur Radio as being divorced from politics, the fact that politics has become involved with director and vice-director elections is an indication that the League is indeed a democratic organization.

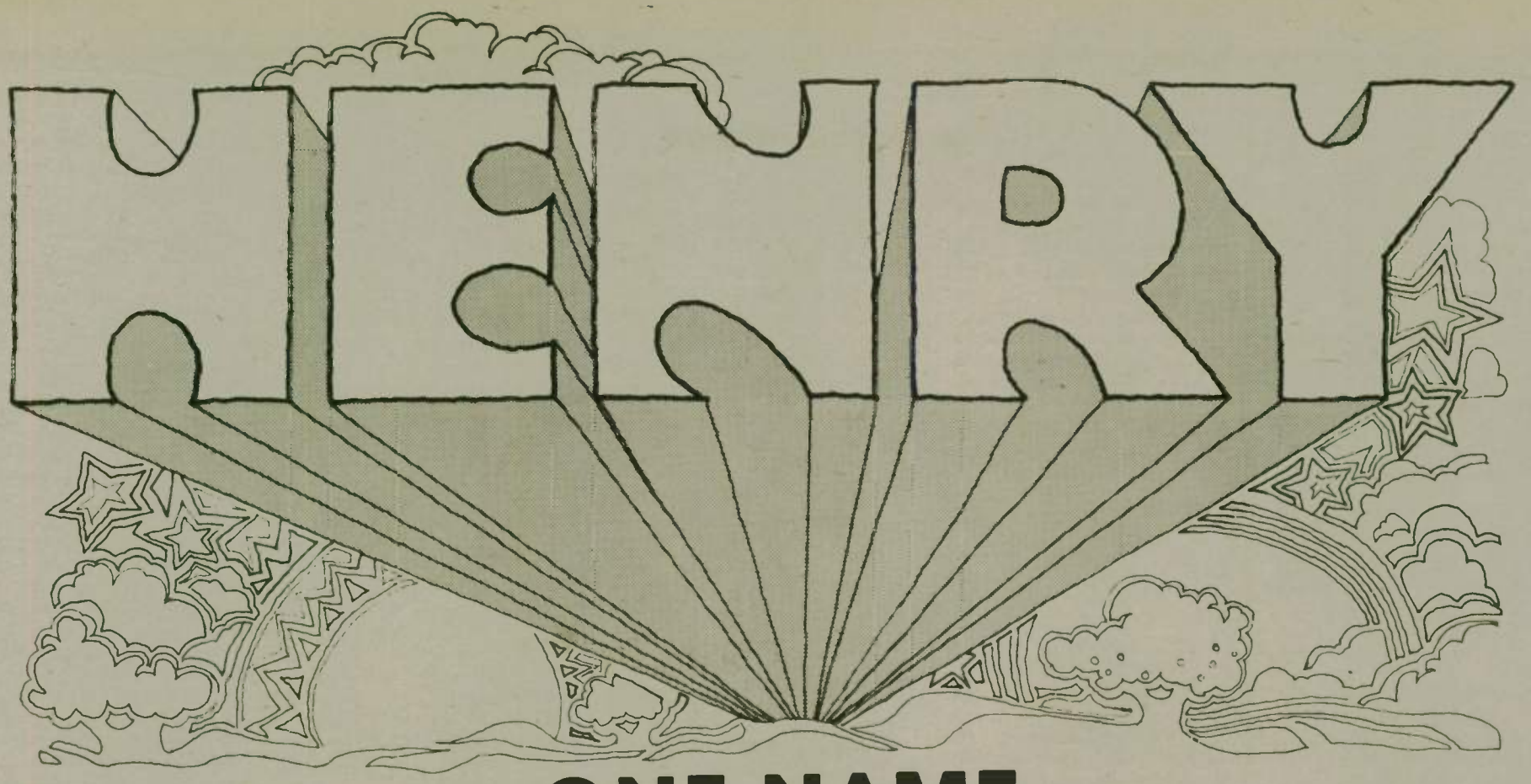
In the past the board of directors met once per year, but in 1971 the by-laws were changed to hold two meetings per year: the annual meeting held the third Thursday of January and the second meeting held the third Thursday in July. By-laws call for meetings to be held in or near Hartford, Connecticut, but the Board may vote to hold a meeting at some other location. An example is the board meeting held in New York City just prior to the ARRL national convention in 1974.

Since the League is a legal corporation, board meetings are not open to the general membership. Time and space would make this nearly impossible, and in an open meeting little actual work would be completed if individual members were able to address the board. Since the League is a national organization, it is unfair to the membership to allow those who live close to the normal site of the meetings to attend. Costs of holding meetings at locations throughout the United States and Canada on a regular basis would be prohibitive. Thus board meeting attendance is limited to directors, vice-directors, officers and various headquarters personnel who contribute to the work of the board.

In order to give members a personal voice, the board has made it mandatory that an "ARRL Open Forum" be a part of every national divisional convention, with all League officers and directors attending. The Forum must take place at a time during the convention when there is no conflicting scheduled activity. At the Forum members and any other radio amateurs present may and are encouraged to express their views on any subject affecting the League and Amateur Radio.

Meetings of the board are formal and follow **Robert Rules of Order**, with an adopted agenda and a specific order for the making of motions by the directors and officers. While certain officers can make motions, only the directors vote, except in the case of a tie when the president casts the deciding ballot. There is no limit to the number of motions a director can make at a meeting except perhaps time. Realistically, there is a natural limit to the number of motions a director can make, have seconded and adopted. Directors stand a better chance of having motions adopted if preliminary work has been done to gain support for a particular item. There is often a need to study the implications of a proposal and determine what effect any change will have on the League and the membership. Often motions are sent to committee for this study. This is not an attempt to bury a motion as some individuals believe, although some motions do not come out of committee for adoption because it is found that the effect of the proposed change will not be in the best interest of the ARRL.

(*please turn to page 39*)



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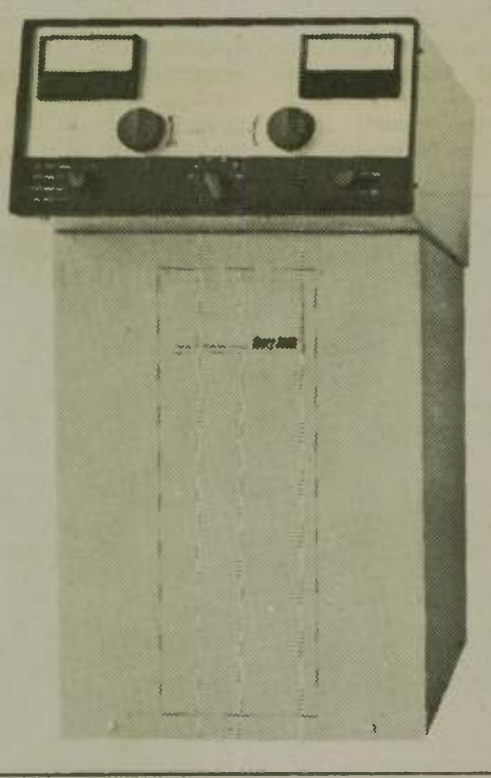

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coming from other countries have bought their license; they don't know CW. But many of our overseas amateurs do not have a US license either. Bob Kegley, who operates BV2AB and put BV on phone for the first time in many years, has no U.S. license. Many of our people in embassies in Central and South America have never taken a U.S. exam. They have been given courtesy licenses by the local government. So it goes both ways; these people who are operating in this country, and they are not that numerous, I think we can all put up with a little QRM. In the old days (I'm giving away my age. I guess I think I'm still a young guy, but you people in California have a governor younger than I am.)

What I'm saying is I would appreciate any effort that any of you could make toward restraining this restrictive attitude toward the reciprocal operating vistors that we have in this country, for your own good.

Of course, I have a self interest in it and I admit it. My work is largely overseas, and when I go overseas I don't want to have to fight to get a license. I want to be able to enjoy my hobby. But if we start putting more restrictions on here, then we're just asking for it in a reciprocal form overseas.

K4IIF (John Attaway) in his DX column (CQ Magazine) made a very apt comment: Many of these countries don't understand at all what some crazy nut wants to do coming overseas to set up a big station just to talk to people back in his own country. It doesn't make sense to them. I even had an example, and it comes from one of our own diplomats. I was with a friend of mine just the other day, whom I haven't seen for a number of years, who has spent most of his career in Africa. Anyway, this fellow had to go over every now and then to Gambia. He said you're a ham radio operator; did you ever know a US Army General and his wife who did a lot of traveling around and brought their station with them? Because, you know, these people in Gambia, all they wanted to know was, "What are these crazy Americans doing up there in that hotel? He's spending all his time operating and she just comes out long enough to get a little food and take it back into him." I think that these people are in the audience right now (Lloyd and Iris Colvin, W6KG and W6DOD). (laughter)

He said this was the biggest problem he had when he was over there in Gambia. They didn't have any other issue to raise at the moment. They all wanted to know what the heck this crazy American was doing in his hotel room operating his radio 24-hours a day. It didn't make any sense.

Well, this is the situation those of us who have operated in some other countries have found to be quite true; therefore, it really behooves us to show the maximum amount of good will to our foreign visitors regardless of whether it causes a little QRM from time to time, in return for which we will get an increasing amount of good will when we want to operate in some of their countries.

I'm showing my age, but I have to admit I started out on CW about 23 years ago and I'm getting to be more and more a CW fan again. And I'll tell you why. It seems like when I first got started in ham radio, and learned what I knew about DX from people like Ross Hansch, now W9VG, and Art Saboe, W9LNM, who were my mentors, there was a little different way of doing things. Nevertheless, it seems to me that we've lost something in our phone operation. If there was QRM at that time, people accepted it and the good operators could hear through it, and they didn't complain about it. They didn't ask to be put on a list. They didn't ask the DX station to go by districts. They hung in there and worked the DX and they earned every contact they made. I just wish that we could see a little more of that today.

After the dinner a series of awards were made. Then the Kingman Reef DXpedition crew presented a slide show on the trip. (See **Worldradio** August 1974.)

(Editor's Note: This was the 26th Annual International DX Convention. Many overseas operators attended. For sociability of the attendees it has no equal. It is a friendly gathering with much camaraderie. Highly recommended . . . W6AJY.)

Bandwidth

A complex subject was presented in a very lucid manner. He showed the energy in the voice spectrum and that if the filters could capture the fundamental and the harmonics (in little slices) 95 per cent of the speech energy is in about 350 Hz of the bandwidth. If the filters could capture only the fundamental and the harmonics, you would get only one-tenth of the noise presently received.

This would give you a ten-to-one bandwidth compression or, if you keep the bandwidth the same, it gives you a 10 db signal to noise ratio improvement on single sideband signals. "We're talking about communications capabilities on sideband that would be comparable to what we do in CW today.

"This will be a reality and maybe we amateurs can make a mark in this also. The reason for the upcoming **QST** article is to encourage people to learn about it and look at it. Amateurs for many years have shown they're pretty ingenious in taking interesting ideas and doing something with them. With the exploding technology we can only wonder what the amateur bands will sound like in five to ten years."

OSCAR

Jay Holliday, W6EJJ, vice-director of the ARRL Southwestern Division, presented "DXing via OSCAR" in a most interesting and enthusiastic manner.

He started by telling that OSCAR (Orbital Satellite Carrying Amateur Radio) is where DXers and VHFers meet. Jay told and showed slides of the development of the OSCAR program starting with OSCAR I.

Launched on 12 December 1961, OSCAR I was a beacon on two meters. Battery powered, it lasted for 18 days. In that time 600 amateurs in 28 countries tracked it. He showed pictures of OSCAR 4 and 5, the latter having been built by the Australians. The slide show presented block diagrams of the equipment on the satellites. Concentrating on the more recent OSCARs, 6 and 7, Jay showed how the equipment had its batteries charged by solar cells.

OSCAR VI, launched on 15 October 1972, has had more than 11,000 orbits resulting in over 100,000 contacts. Amateurs in 70 countries have taken part in the experiment. OSCAR VI had the up link on two meters and the down link on 10 meters.

OSCAR VII, launched on 15 November 1974, has two translators on board with up links on two meters and 432 MHz and down links on 10 meters and two meters. The flags of the countries whose amateurs built the satellite: USA, Australia, Germany and Canada, are on OSCAR VII.

Jay said many people ask the question, "What type of antenna do you need to work through a satellite?" He said that while a crossed ten element Yagi with elevation and azimuth control is very nice to have, you can get on "quick and dirty" with a two meter groundplane. And to back up his statement he showed a slide of his groundplane (made of stiff wire) which, with 30 watts output, worked through the satellites. He mentioned that with a five-element Yagi he got "Worked All States" through OSCAR VI.

As for equipment, Jay told that any receiver that covers the ten meter band will do. A pre-amp will help with the weaker signals. On ten meters a groundplane, dipole, Yagi or quad will work just fine as a receiving antenna. He said any rig with ten watts output will do and told of those who had put the proper crystal in their FM rig and keyed it with the mike button. One rig many have used to get on OSCAR is the Ameco TX-62 which was manufactured many years ago. He told that many had built transverters and mentioned the new synthesized rigs such as the KLM Echo II. He emphasized that one should use no more than 100 watts effective radiated power. If too much power hits the satellite receiver the AGC takes over and all signals coming out of the satellite are weaker.

As to when to listen for the satellite, Jay explained how OSCAR VII crossed the equator every 115 minutes and moved west 28.7 degrees with each orbit. The times when the OSCARs cross the equator and the longitude are broadcast over W1AW, sent to **HR Report** readers, and available from Skip Reyman, W6PAJ, PO Box 374, San Dimas, CA 91733 for $3.00 or 20 IRCs from overseas operators. OSCAR VII has a beacon at 29.502 MHz which is quite strong and is often the first signal heard.

Jay described the excitement of OSCAR saying, "It sounds like a dead band; then all of a sudden, it's alive." A station set up for OSCAR would get three passes each evening from both satellites with access to the satellite for about 21 minutes. From the West Coast 17 countries have been worked and, if more DX stations were on, about 74 countries could be worked from Los Angeles. Stations on the East Coast have worked 50 countries already.

By 1978 it is hoped that the OSCARs will be in much higher and synchronous orbits. With a 12-hour orbit Europe and Asia could be worked with ease. Jay said OSCAR makes a great club project and said we should encourage others to get on. We need more operators on in other countries and we should make equipment available as well as getting up DXpeditions to South America to put countries on the OSCAR map.

He talked of the educational benefits of OSCAR where space and electronics meet, and mentioned the study material available from ARRL for high school classes.

As to a lot of power being needed, he mentioned that Lou Anciaux, WB6NMT (**Worldradio** VHF editor) hit the 432 input with one watt. You know if you are working through OSCAR because you can hear your own signal on the down link.

Jay, who has done many things in Amateur Radio from DX Honor Roll to meteor scatter, called OSCAR "a lot of fun." Calling it "the wave of the future" and "the future trend of Amateur Radio," he said it is something every amateur should get into.

GATE and 6W8

James Bilancio, WA4RXS/6W8

This summer I had the rare opportunity to get in some DX licks from across the pond as a scientific member of the GATE experiment based in Dakar, Senegal.

Called GATE for Global Atmospheric Research Program — Atlantic Tropical Experiment, it represented the largest international force ever assembled for peaceful purposes. The project was designed to gather the necessary data needed to understand, more completely, the behavior of the tropical weather regime and its effects on global weather. This achievement would benefit all the world's peoples, most importantly the hurricane frequented countries in our hemisphere and the drought stricken Saharan countries. GATE began on 15 June and continued through 23 September. It covered a 20 million square mile area of tropical land and sea extending from the eastern Pacific Ocean, across Latin America, the Atlantic Ocean and Africa, to the western Indian Ocean. The 101 day field study directly involved some 4,000 scientists, ship and aircraft crew members, and technicians from 72 nations. Instruments on 40 ships, more than 60 buoys, 13 aircraft, 6 types of satellites, and at nearly 1,000 land stations, observed and recorded weather and ocean phenomena from the top of the atmosphere to about 5,000 feet below the surface of the sea.

Soon after my arrival in Dakar I got in touch with Jacques Goyette, 6W8DY, whom I once contacted in a DX contest a few years back. Jacques is a Catholic missionary brother from VE2-land and was most kind in showing me around Dakar. He was instrumental in helping me cut through the bureaucracy and acquire a 6W8 authorization in less than one hour upon arrival at the Senegalese telecommunications office! Jacques' fine shack consists of a Yaesu FTDX and FV401 which excites a dipole on 40 or a Mosely MP-33 on the higher bands. His 5BDXCC plaque and thousands of QSL's testify to his DX-pertise and ability to catch the rare ones.

Later on I met three U.S. comrades from Wisconsin (Stan Burns, K9KGA; Gary Sutcliffe, WB5FRG; and Dave Milke, WB9EGZ) who had brought over a nice ensemble of gear. They too had obtained 6W8 permits and set up their station in their hotel room. It was made up of a Swan 500, SB102, HW101, 4BTV vertical and 5/2 wave length horizontal V on 20 meters. The gang was kind enough to let me use the rigs when the working schedule permitted. Though very poor propagation existed during June, July and early August, I did manage several hundred QSO's, mostly on 20 meters. Unusually high solar activity was also most discouraging during this period. At home the QSL chores were in the competent hands of my fellow DX hound, Frank Faynor, W4OUX, in Boca Raton.

While in Dakar I got a chance to visit the Dakar Radio Club, 6W8AAD, with Jacques and the others. Later on during our stay we were surprised by a visit from Edouard Gaildry, 6W8GE, who presented each of us with a colorful Diplome du Senegal, a fine award available to anyone with five 6W8 confirmations through the Award Manager of the Dakar Radio Club.

In July I managed a trip to the interior of Senegal and visited Leon Jean Masfrand, 6W8ES, and Constant Narolles, 6W8DW, located in Thies, about 40 miles east of Dakar. Leon (ex FQ8AG, TN8AF) is an old hand at DX. He prefers CW over SSB as his failing hearing still "Rogers" the music of CW blasting at full volume over his European version of the Kenwood transceiver. I also snuck in a short trip to The

(*please turn to page 39*)

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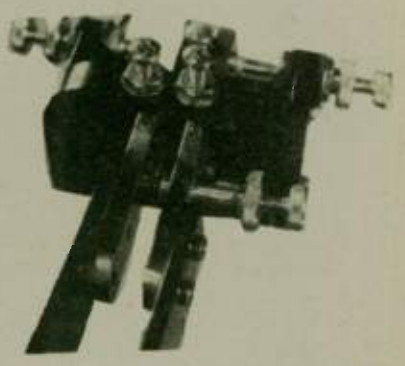

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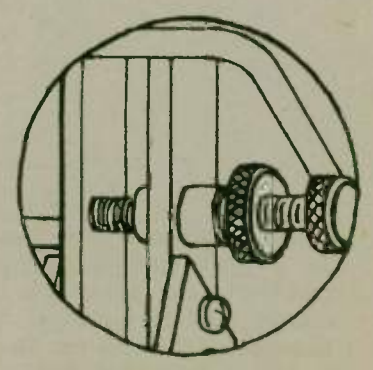

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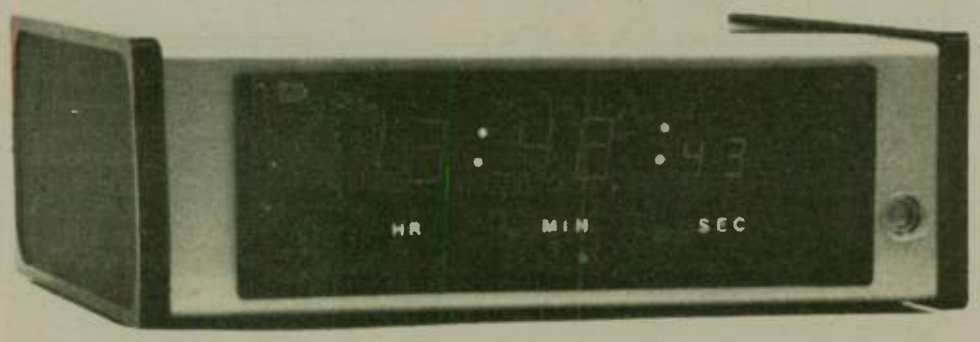

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INTERNATIONAL FRIENDSHIP

Mavis Stafford, VK3KS, is a very active member of the International YL SSB Association, and both Mavis and her OM Ivor, VK3XB, are members of the world-wide First Class CW Operators' Club (FOC).

When Ivor retired as a secondary school principal, after 40 years in the profession of education, Mavis and Ivor circumnavigated the world to visit as many of their amateur friends as possible. Their story follows:

"Thirty-one hours and six meals after leaving Melbourne we arrived at crowded Heathrow (the airport at London, England). William Craig, G6JJ, plucked us out and whisked us along green winding roads to Hertfordshire where Dorothy was waiting to serve lunch. Within an hour, G4DGJ/A (the English call issued to Ivor) was on the air. That same afternoon we visited historic Verulamium, a city built during the Roman occupation of England. So began our five month holiday.

Third July (1974) at 12 noon saw us at "Dirty Dick's" well-known victualling establishment in Bishopsgate where we met R. Stone, .G3YDX; N. Pascoe, G3IOI; Kjell Edvardsson, SMØCCE; and G6JJ. The latter was to become chief communications officer and guardian of our welfare for the rest of our stay. At Edinburgh on the evening of 24 July, D. Craig, GM3AWF, gathered E. Ross, GM3LWS; J. Balfour, GM3PFQ; A. Coutts, GM3KPD; J. Christie, GM3FXM; and W. Hunter, GM3HUN at our hotel for a mini-hamfest, a most enjoyable occasion. On the same trip, Aberdeen, Stirling, Keswick and Bath extended amateur hospitality also.

Scarcely had our U.K. tour ended than Bill, G6JJ, offered us a chance to visit Cambridge, to see the towers and boys fishing in the Cam. Thereafter we tried train travel and were delighted with our trip to Wolverhampton to stay with G4CP, Ron and Dot Perks. Their programme included a visit to Swinford for an evening meal with "Jake" Jacobs, G3AAQ, and Nettie Perks, where we met J. Whitby, G3HDB, and Margaret, and an at-home at Walsall to meet T. Littlemore, G8AX; J. Morris, G3ABG, and their XYL's.

Ivor, VK3XB, and Mavis, VK3KS, standing near the initial gold discovery site beside the American River at Coloma, California. (Photo by Jack West, W6VD)

We were taken to Wedgewood Potteries. We met J. Mann, G3AAM; K. Basterfield, G4MJ; and G3FKM with their XYL's at a dinner party at "The Dog." We were photographed in the street in Stafford (surname of Ivor and Mavis).

August 7 found us back in London and, again through the agency of G6JJ, we were on board HMS Belfast meeting G3HZL. In the afternoon we were sightseeing in beautiful Surrey with G. Bennet, G5BZ, and Eileen.

Later in the month, on our Scandinavian tour, we were to meet H. Pyndt, OZ5DX, at Copenhagen, have a delicious meal with SMØCCE and his family at Stockholm, talk to Arne Sandwill, LA3UF, miss meeting Birger Larvin, LA2B, though he had travelled to see us and attend an amateur gathering at Bremen.

Back from the continent we went to Dorset to stay with G6CJ and his sister. Sightseeing alternated with working DX. We met T. Mortimer, G3JZV, who took us to the Portsmouth ferry on our way back to London from seeing Constance Hall, G8LY. More excursioning took us to G2DPY (Stan and Betty Mercer) and, of course, W. Windle, G8VG, (Hon. Sec. of FOC) whose 80 meter antenna siting proved the confidence of his neighbors and some others. HC1XG (son of G8VG) was there to complete a splendid afternoon with Bill and Muriel.

On tour in Italy in September we were welcomed to Milano by Evert, I2XKF, and XYL Helga, herself with an OA call, and Sil Orefice, I2FO.

In late September we were once again at Rickmansworth (G6JJ) and the sun shone for photos. Four days later, through Bill's and Dorothy's good offices, we were conducted around Kew Gardens by their son-in-law. Between and around we had enjoyed home cooking by the spouses of G3IMV and J. Kirk, G6ZO. Before the Lord's Dinner (an annual FOC dinner at Lord's Cricket Grounds in London) we took another trip to Rugby to sample Jake's and Nettie's viands a second time. At Lords we fitted the CW styles to the faces. It was a wonderful evening, but we had to rush off without farewelling everyone. To those whom we missed, we apologize. Three days later we left green and lovely England.

TWA carried us safely to the USA. On Oct. 11, Heinz Milark, W2HAQ, and Dolly took us from Newark, NJ, to Waterford, CT, a long trip but most enjoyable. On the way we met up with Jim Dandy (no call sign) who more than satisfied our appetites. New England in the fall was glorious in its color. Ed Raub, Jr., W1RAN, and XYL Shirley had promised us exciting scenery and they fulfilled their promise.

On the way to the New England DX Club annual dinner we dropped in on Roger Corey, W1AX, and Dot for lunch. At the dinner George Hitz, Jr., W1DAL, President, had many FOC members present. Ellen White, W1YL, presented VK3XB with a contest certificate (for the 1974 ARRL DX contest). Ed took us to the Mystic Sea Museum, to ARRL Headquarters to photograph Ellen's "Coonas Award," and to the home of Bob White, W1CW, and W1YL.

Our next stop was Torrington with John Thompson, W1BIH, and XYL Mary. More wonderful fall scenery and restful nights. Howie Ferris, W1HZ, all smiles, took us to Concord where we enjoyed an on-the-spot refresher course in American history. His XYL Dottie gave us the chance to meet Charles Mellen, W1FH, and Norman Young, W1HX, and their XYLs one evening.

Then it was Sudbury with George, W1DAL, and Carol. We had not seen a 40 meter Yagi before, but there it stood in the golden woods. Two nights with these good people and we were on our way to Washington, D.C. Ed Redington, W4ZM, with Vic Clark, W4KFC, and Buck Lewis, W3AXW, had arranged for a visit to the Potomac Valley Radio Club and QCWA meetings. Secretary of the Washington Chapter of QCWA was Liz Zandonini, W3CDQ, with whom we stayed.

In the next two weeks we enjoyed the hospitality of amateurs in Ohio, Kentucky, Arizona and California, and on the evening of Nov. 11, at the home of David Atkins, W6VX, and Connie we enjoyed a ragchew with Roy Ferren, K6RA; Dr. David Morgan, K6DDO; and Richard Kemp, W6OV. Earlier we had visited the DXer's dream QTH of Gene Royer, W6EBG, overlooking San Fernando Valley. From Los Angeles we took an all-day railroad train trip to the state capital of Sacramento. We spent a night and a day with Jack West, W6VD, and XYL Alice, who drove us to Coloma, located in the foothills of the Sierra Nevada mountain range, where gold was first discovered, which triggered the great gold rush of 1849. We then spent three days with Pete Jones, W6PTZ, and XYL in Napa, and enjoyed exploring the fertile vineyard country of the Napa and Sonoma valleys, as well as a sight-seeing trip of famous San Francisco.

At 8 p.m. at San Francisco International Airport on Nov. 18, about to depart for home, we were paged over the P.A. system. Merle Porten, K6DC; Robert Schmidt, W6HOC; and Jack Troster, W6ISQ, had arranged an FOC surprise farewelling party. They met us at Gate 14. How thrilled we were. It was all too short; we had been delayed while our luggage was inspected, but it made our evening. Some 17 hours later we were back in Melbourne.

Our sincere thanks go to all those amateurs and XYLs whose hospitality and goodwill had made this trip so memorable.

(Some editorial comments by Jack West, W6VD)

International Amateur Radio Club

Dear Worldradio Subscriber,

Have you ever worked 4U1ITU? If so, you already know that this is the station of the International Amateur Radio Club (I.A.R.C.) in Geneva, Switzerland. It was founded in 1961 by members of the staff of the International Telecommunications Union with the following objectives.

1. To provide a ready means for the promotion of amateur radio within the I.T.U. and other international organizations.
2. To provide operating facilities in Geneva at 4U1ITU for visiting amateurs, especially delegates to international conferences.
3. To provide for a community of interest among amateurs belonging to or associated with international organizations throughout the world.

To achieve these objectives, the station 4U1ITU is made available to all visiting radio amateurs. This station will soon return to a regular scheduled operation and operating times and frequencies will be announced.

Equipment and space for 4U1ITU are donated by the I.T.U., the I.A.R.U. and various equipment manufacturers. However, the club must bear the cost of maintenance, QSL's, stationery, postage, etc. Funds for these expenses can come only from member dues.

There are two classes of membership; (1) Life Member with a one-time dues payment of 50 Swiss francs ($21.00) and (2) Ambassador Life Member with a one-time payment of 500 Swiss francs ($210.00). Ambassador Life Membership is limited to those with a bona fide interest in promoting the club during their travels and must be approved by the club. All members will receive a membership certificate suitable for framing and a pocket-size membership card. Any member may operate 4U1ITU when visiting Geneva. At such time as it becomes possible to publish a newsletter or other publication on a regular basis, members will be notified and offered the opportunity to subscribe.

Your support of this meritorious activity will be appreciated. Your check in the appropriate amount made payable to the International Amateur Radio Club, may be mailed to me with your application.

Sincerely & 73,
L.M. Rundlett, K4ZA
Ambassador Life Member

International Amateur Radio Club Roster of Ambassadors

1. Gus M. Browning, W4BPD
1a. Dr. Emil Savundra, G3SDN
2. Wm. J. Halligan, W4AK
3. Stuart F. Meyer, W2GHK
4. Natan C. Sterental, OA4OS
5. George Jacobs, W3ASK
6. Miroslav Joachim, OK1WI
7. Dr. Harold J. Megibow, K2HLB*
8. Vitaly Franco, OA4PD
9. Bill W. Eitel, W6UF
10. Harry L. Whiting, W2JXH
11. Lyman M. Rundlett, K4ZA
12. Gustav Nuettel, DL3FS*
13. Mrs. Laneil Eitel, WB6MRW
14. David G. Flynn, W2CFP
15. Gustav-Georg Thiele, DL1ZK
16. Robert Ducret, XW8BJ
17. Bill L. Mitchell, XW8AX
18. Arno J. Kosko, HS4AK
19. John H. Gayer
20. Ruel P. Samuels, 6Y5RS
21. Richard B. Diamond, W1ADV
22. Selwyn J. Stansfield, W7ZI

* Silent keys

Mr. Richard C. Kirby (WØLCT), President
International Amateur Radio Club
P.O. Box 6
1211 Geneva 20
Switzerland

Dear Dick:

I would like to support the work of the International Amateur Radio Club and its station, 4U1ITU.

Please accept my application for Ambassador Life Member*/ Life Member. My dues in the amount of _____ are enclosed herewith.

_____
Name (type or print)

_____
Call sign

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Address

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_____

_____
Date of application

*Strike out one. If application is for Ambassador Life Membership, attach a resume of your plans for promoting the interests of the club. Membership dues to be enclosed are —

Ambassador Life Member — $210.00

Life Member — $21.00

Please make your check payable to: International Amateur Radio Club.

Please mail to: L.M. Rundlett, K4ZA
206 East Amhurst Street
Sterling Park, Va. 22170

Sister City

by John G. Troster, W6ISQ

During the 16th Annual Sister Cities Conference in Phoenix, Arizona, an amateur radio station was in operation outside the meeting hall which proved to be highly fascinating for the uninitiated. The purpose of the station was to introduce delegates to the idea that Amateur Radio is an instant means of direct communication with your sister city.

As an example, Val Popof (K7AW) of Prescott, Arizona, discussed his sister city radio activity with the operators at the Phoenix amateur radio station. Popof holds a weekly schedule with the Red Cross station (XE2CR) in Caborca, Mexico, Prescott's sister city.

They are working on a program between Yavapai College in Prescott and Prepatoria Junior College in Caborca which will allow the language departments of the two schools to converse in Spanish over Amateur Radio. Students and teachers have already been exchanged and the citizens of both communities have been honored guests at each others festivals, so they are using Amateur Radio to extend this good beginning.

This fall Popof will travel to Caborca to teach a class in basic radio for the benefit of anyone there who is interested in obtaining a radio license. More licensed operators in Caborca will help further more sister city communication.

All sister cities who are not already plugged into the world of communications via Amateur Radio should investigate this medium. First, be sure "third party" exchange is legal. Contact a local amateur for further information. To help spread the word it is requested that all radio amateurs now engaged in any form of sister city radio communication send details so that your experiences may be shared with others. (Don't forget to include photos of your operation.)

The Amateur Radio group working with Sister Cities International would like to know how you located an amateur in your sister city, how often you meet, who talks, what sort of information you have exchanged whatever you think would be helpful to other cities just trying to work up a radio communication program. Send information to Chuck Towns, 13035 Regan Lane, Saratoga, CA 95070.

What would be your ideas for a Sister Cities standby frequency? Val Popof, K7AW, suggests 14,287 KHz at 1400Z and 0200Z. He will stand by on that frequency so any sister city groups who are working with Amateur Radio operators, will you please let us know who you are, what you're doing and watch for Val Popof. Your solution to your communication problems may help others.

EDITORIAL

Armond Noble, W6AJY
Editor, Worldradio News

Amateur Radio is facing a serious problem. It is one which, if we fail to act, has grave consequences.

We use the word "grave" intentionally, for if steps are not taken immediately the death knell may ring over Amateur Radio as we presently know it.

Everyone is already familiar with the fact that the number of amateur radio operators is decreasing. What we shall now show here is that the number of "new licensees" is also decreasing and it is decreasing at an alarming rate.

In 1973 16,557 people joined the ranks of amateur radio operators. Last year, 1974, 14,734 came into the field. It was a drop of 1,823. Another way of looking at it is, we had an 11 per cent drop.

If the 11 per cent drop a year should continue, in seven years we would have one-half the number of new licensees and in another seven years, one-half again.

Why the cause for alarm? We shall quote from one of the most knowledgeable people in Amateur Radio, Bill Orr, W6SAI. In an article of his in the April, 1975 issue of CQ he said, "If the Amateur Service is not growing, or not using its allocation to the fullest, and some other service is expanding, there will be pressure to take frequencies away from the dormant service and give them to the growing service."

What is the definition of dormant? My dictionary says: "1. lying asleep or as if asleep; inactive, as in sleep; torpid. 2. in a state of rest or inactivity; inoperative; in abeyance. 3. undisclosed, unasserted. 5. temporarily inactive," and so on. The antonym of dormant is "awake, active"

The definition of "torpid" is 1. inactive or sluggish. 2. slow; dull; apathetic; lethargic.

Those are not very nice words to apply to the Amateur Radio Service. But the deep and probing question must be raised . . . Is it true?

In another article in this issue of **Worldradio**, Fred Laun, W9SZR, said "All over the world there's no fraternity like the ham fraternity." You and I know he is right. But somewhere along the way did we stop paying the necessary attention to one of the important elements of this fraternity?

Teddy Roosevelt once said that every man owes something to his profession. Could we paraphrase that to concern Amateur Radio? Is there a time when a man must pay something back for the pleasure he has received from this activity?

Let's get a little more "Gung-Ho" about Amateur Radio. It shouldn't be hard to be enthusiastic about this. What other activity is more encompassing? What other activity offers more sense of reward or accomplishment? So let's not hide our light under a bushel.

It has been my personal experience that few endeavors match that of seeing a 12-year-old boy and a 67-year-old man get their licenses from your class. It gives you a warm feeling.

For our own self-protection we cannot, and should not, allow an 11 per cent drop in the number of new licensees. I can guarantee that after you teach one class to get their licenses you will find it a better experience than going bowling or something else that benefits only yourself.

Think about what Amateur Radio has meant to you. What greater gift could you give someone than to let them share in what Amateur Radio has to offer?

Do you remember the day you opened that envelope from the FCC with your license in it? Quite a thrill wasn't it? You can have that excitement again. You'll share in the enthusiasm when your students call you on the phone to tell you they got their license today. You will share in their pleasure.

What it all adds up to is: some years from now, when you look back and total up what you have done with your spare time, what will the board look like for you?

The DX column in **QST** occasionally speaks of your "Elmer", that is, the amateur in the neighborhood who helped you get your license. I remember mine; his name was Jack Dick, an engineer for CBS. He lived near Santa Monica and Vermont in Los Angeles and he filled a young lad's ears with the lore of DX. He would elaborate on how a Yagi worked, and modulation and so on. Jack was a busy man but he saw the youth go from a one-tube receiver to a three-tube receiver, then to a BC-348 with a folded dipole cut to the 20 meter band. (That was Jack's favorite band.) Then a one-tube transmitter with a 6L6 was built. Jack's help resulted in the boy getting a good grade on the Army entrance exam for radio school. Then came an FCC 1st class radio telephone license. I often think of Jack.

For those of a philosophical bent, it has been said your share of immortality is if people think of you and what they think of you.

Is there any obligation to pass on to others what others have taught us, and then hope they pass on what they learned? Isn't that part of the Amateur Radio spirit which attracted us to this activity in the first place?

Looking for a challenge? Put something back into Amateur Radio. Pay a little dues for the pleasure it has given you. I can tell you there are few satisfactions to match seeing your class get their licenses.

You can run a class once a week in your home, or the local adult education center will give you a classroom and advertise your class in their flyers. There are even some junior colleges giving three credits to the students taking Amateur Radio. Let us know about your experiences and we'll be glad to share them with others in **Worldradio**.

Rise to the challenge. Don't let anyone call Amateur Radio (or the people in it) apathetic or lethargic.

The TRITON is a One-of-a-Kind HF transceiver, totally solid state including the final amplifier. The new generation that does more things better than ever before.
One, you can change bands instantly. Just turn the band switch—and go!
Two, there is less internal heat to prematurely age components and no high voltage to break down insulation or cause accidental shock.
Three, it has ample reserve power to run at full rating even for RTTY or SSTV without limit. Great for contests or emergency service.
Four, it is light and compact with a detachable AC power supply to work directly from 12 VDC—For mobile operation without tedious installation.
Five, the TRITON is a delight to operate. SSB is clean, crisp and articulate. Amplified ALC puts all available speech power into the antenna without splatter. CW is wave-shaped to cut through QRM and pile-ups. Instant break-in (not "semi" which really isn't break-in) lets you monitor the frequency while transmitting.
And six, a lot more goodies such as excellent dial illumination, plug-in circuit boards, offset tuning, built-in SWR bridge, speaker, crystal calibrator, snap-up anti-parallelax front feet, light indicators for offset and ALC, direct frequency readout, WWV, entire 10 meter band coverage—and a lot more.
The TRITON brings together all that is new and exciting in Solid State for your greater enjoyment of Amateur Radio.

TRITON I 100 watts input	**$579.00**
TRITON II 200 watts input	**669.00**
Model 251 Supply for TRITON I	**79.00**
Model 252 Supply for TRITON II	**99.00**

We'll be happy to send you full information.

TEN-TEC, INC.
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Don't tell the crooks
a radio is in your car
avoid the bad rip-off
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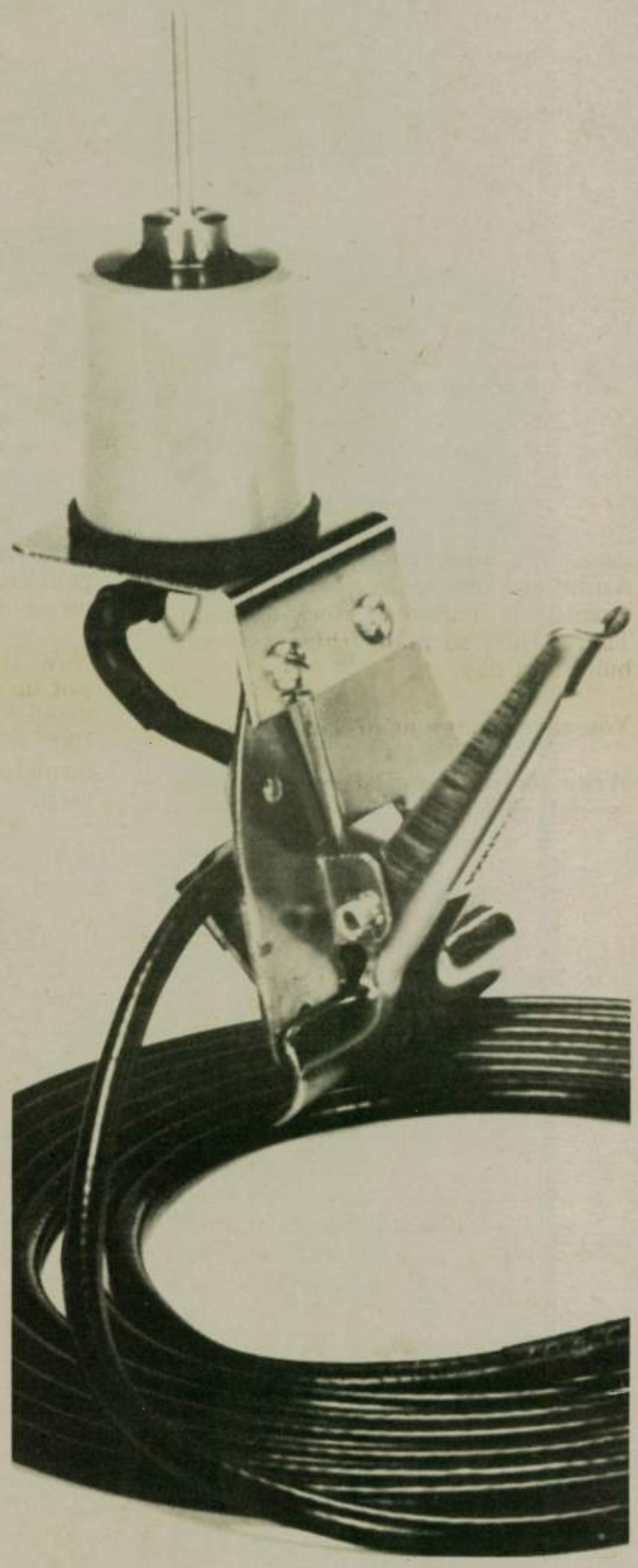

Br·vo for Larsen! They've got something great i.i their line of antennas. For example: The magnetic-mount (above) and the gutter clamp mount (right). No highway speed will ever remove that mag mount. Both come with the silver plated 5/8 wave antenna, ten feet of coax and attached plug

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

If you don't buy it at M-TRON you are spending more than you have to!!

Check these used specials:

Drake TR4 transceiver, tops .. $389
Drake SW4A receiver, quality . $249
National NCX-3 very clean $149
Realistic DX-160 rcvr, solid st. $119
Swan 500C w/AC ps, xtal calib. mobile bracket, CW filter, speaker, manual, original boxes, neat ... $459
Galaxy GT-550 w/AC ps, remote vfo, (get dx) cw filter, spkr and manual, lotsa power yours for . $499
Pickering CW keyboard, use this and you'll never get QLF again. A good fist the easy way, slick at $185
Pow! Bang! Smash! Zang! Krunch! It's all yours if you have a Heath and you add the Magnum 6 speech processor. I kid you not, four times the power (6db). Get it for $99
Ameco SWR bridge good from 2-225 MHz. Tune up the antenna $25
Power Supplies: Drake AC/4 $75 Collins MP-1, 12vdc $49.95 — Drake DC/4 $89.95 — Linear Systems 500-12 $75 — 400-12 $75.
C'mon in to the home of the little guns. We'll tell you how we operated from rare Catalina Island. Free info on how to work JAs. On our used gear, it's first come first served. And, on our other super-buys, quantity is limited to stock on hand. There's just so many things we can build in a day.

You save money at M-TRON!! Yes!

Write for your special, and we mean special, cash prices on the following:

Drake: T4XC, R4C, TR4XC, LB4, 4NB, TR22C, etc.

Ten-Tec: complete line, Triton I and II, Agronaut, power supplies, keyers, vfo, tuner, linear amplifier.

Atlas: the globe-trotters rig, the 210 is 80-10 M, the 215 is 160-15 M. (Did you see KV4FZ just made DXCC on 160?) (We're going to do it on 220 with those snazzy KLM antennas, but more about that later.) With the Atlas "M" series you can go on MARS. Boaters: you can get the Coast Guard with an Atlas. Also, we have the two Atlas power supplies and their super mobile antenna matcher. You'll get your jollys over this rig.

And here's your reward for reading this far down in our ad: CDR rotators, CD-44, regular $109.95 now $89.95. The biggie, turn anything, Ham II, regular $159.95 now $129.95. And, those Ledu magnifier lamps reg. $57.95 now only $38.95. Oh, how do we do it?

In next month's ad: Details on our super drawing (no purchase necessary). First prize: a one-way trip to Box 88.

TEAR A HOLE IN THE BAND!!

A six db increase can be yours without going up 50 more feet (and falling off or irritating your neighbors) or having a big electricity bill every month. It's the Magnum 6 speech processor. Does its thing with RF processing. No, it does not harm tube life. You'll snap a few heads across the ocean. We have them for Collins, Heath, Kenwood, Yaesu, Drake, Swan. All in stock. Prices start at $150 and worth it.

You'll be on the air so much you'll need a 24-hour clock. We have the 12-inch dial w/sweep second hand, 110v 60Hz for $24.20

Don't disturb the XYL. Stop her headaches. Use communication grade earphones by Super-ex. 100-3000 Hz. Model #155 regularly $7.35 on sale for $5.95. COM-S $15.35, APS-2 $28.50

To have SWR, or not have SWR, that is the question. Out darned SWR! Forget it with the Johnson Viking Matchbox. Load up anything: bedsprings, wire fences, a box of nails. The best there is. 275 watts $199 — KW $320. Seriously, you'll hear more plus they give great reduction of harmonics. Recommended.

Now that you have the Matchbox, put up a rhombic! Well, how 'bout a dipole? Copper wire #14 stranded 100 ft. spools $4.95 each. Egg insulators, 10 or more at 20 cents each.

INSURANCE. You say you have a new neighbor who has an 8" 1946 DuMont TV set? Low Pass Filters: Viking KW — $19.50. Drake KW $18.75. B&W KW — $29.95. Drake 100W $8.95. B&W 100W $14.95. Put one between the exciter and the amp and one between the amp and the antenna and for the first time in your life feel really clean.
ANTENNA FARMERS:
B&W coax switches 2KW PEP
5 position wall mount #376 .. $18.50
5 position panel mount #7590G $16.95
6 position panel mount #575 . $18.50
2 position panel mount #592 . $13.95
T/R switch 50-130 vac #377 .. $14.95

FM FM FM FM FM FM FM FM FM

Hey! Touchtone pads..... $13.95

Why settle for less than the best? Write, right now, for your special cash price on ICOM. IC-230, IC-22A, IC-30A in stock, ready for you.

KLM amplifiers: 2W in and 12W out — $44.95. 10W in and 70 out $129.95. And what separates the men from the boys is the price of their toys, 10W in and 140W out $189.95.

Add the KLM antennas and be king of the mountain. 7L $23.79. 9L $34.49. 11L $38.79. 420-450 14L $21.55. Baluns (VHF or UHF) $13.95.

Rotate those antennas. 4-conductor rotor cable, 50-ft length reg. $3.95. Mention this ad $2.15; don't metnion this ad $1.99.

12-volt regulated power supplies NPC 4-amp. regular $49.00 sale $39.95. 8-amp. regular $72.00 sale $59.95.

VHF Wattmeter-SWR Bridge-FS meter 25 & 50 W scales $69.95. Ant. Spec.

Omega Noise bridge, 1-300 MHz, pruneur antennas $39.95. DC band model, 1-100 MHz $29.95.

FELIX, sorry we mean OSCAR 6 & 7 Ameco FET signal pre-amp 160-6M, gives life to old rigs, PLF for rcvrs $44. Model PT for transceivers $66.

Cushcraft Antennas: We've got them all. 2M, 450, Ringos, Ringo add-ons (that Ranger really makes a difference) Yagis, 4-poles, stacking kits, yea, boom, boom.

Viking brass key, start a Novice for only $4.95, speedex $7.50, the double doorknob $8.20.

We have the Ten-Tec Keyers, nifty. And, the Curtis Keyers, including the keyer on a chip. Jack's one of our pals. Buy 'em here. Ooops out of room. We've got Hy-Gain mobile antennas, Larsen and just about anything else you'd want.

Overseas amateurs: We ship to every continent. Hours: Mon-Fri. 10 a.m. to 5 p.m. -Saturday- 10 a.m. to 4 p.m.

M-TRON

2811 Telegraph Ave. - Oakland, CA 94609

Doug Murray, W6HVN (415) 763-6262 Art Mayoff, VE2AQV/W6

DX DIGEST

Gary Stilwell, W6NJU

As April is now behind us, so are the Fresno DX Convention and the Dayton Hamvention. Some 300 people turned out for Fresno and I'm sure a good number in Dayton. Now DXers can get back to the bands which have been in pretty good shape lately.

Palm Island

The Barbados Radio Society will activate Palm Island, 20-22 June. All bands will be used, 160 through 10 meters, both CW and SSB. This island is located off St. Vincent at 12° 8' N and 61° 41' W.

Fernando Poo

The 3C1AGD operation from Fernando Poo originally obtained permission to operate for one week. Upon arrival they were told they could operate only 20 hours. Some 750 QSOs were made and there is some talk of a return trip to fill the remaining needs.

South Orkney, Anarctica, South Sheltand

LU1ZA on South Orkney, LU1ZS and LU1ZR in Anarctica, and CE9AT on South Shetland will utilize 3740 from 0300Z to 0900Z every Friday, Saturday and Sunday through July. Their band edge is 3750 and they would appreciate having their frequency announced when you work them in order that others might find them.

Chatham Island

ZL2RN on Chatham has been active on 75 meters. Try 3802 after 0630Z.

Fernando De Noronha, Atol Das Rocas, St Peter and Paul

PY7YS hopes to activate Fernando De Noronha, PUØYS; Atol Das Rocas, PRØYS; and St Peter and Paul, PSØYS, during the summer. June and July now appear as the most likely time. PUØYS is planned for one week while the other two are planned as two day stays. QSLs will be via PY7YS. The calls are tentative and subject to change.

Midway Island

KM6EA on Midway has made frequent appearances on 75 and 20 meters after 0800Z. On 20 watch 14205 between 0200 and 0300Z. He plans to be there for two years.

Docket 20282

Returns from the ARRL questionnaire on Docket 20282 are running very high and results should be out sometime this month. Some advance indications have been provided through the courtesy of the Southern California DX Club Bulletin and the Vice Director from the Southwestern Division, Jay Holliday, W6EJJ. Jay took a survey of eight clubs in the Southern California area. Of the eight clubs, one was a DX club and the others were of a general type club.

The survey supports the theory regarding the class of license of DXers versus the non-DXers. The license makeup in DX was 58% Extra, 40% Advanced, and 2% General. Take out the DXers, the general ham club makeup was 17% Extra, 44% Advanced, 21% General, 14% Technician and 4% Novice. The figures speak well for the license classes of the DXer.

Some trends would be as follows: 95% agreed that the licensing system should encourage upgrading, 51% support a code-free VHF license for beginners, only 52% support the requirement for CW for all licenses. 83% are in favor of Generals keeping special modes. 34% supported the deletion of Extra Class phone segments while the same 34% supported deletion of the Extra Class written exam. 54% thought the proposal contained sufficient incentive to upgrade and 86% said there should be some common frequencies for HF and VHF licensees.

It will be interesting to see how these figures follow the national trend when all the results are in.

DXCC Fees

The extensive survey regarding DXCC fees surfaced at the Fresno International DX meeting. Costs for handling DXCC applications are: 10 cards (endorsement) $4.07 US and $4.13 for DX; 20 cards (endorsement) $5.44 US and $5.57 for DX; 100 cards, $9.00 US and $10.50 for DX; 200 cards, $14.00 US and $17.00 for DX. These costs do not include the $6,000 annual cost for QST space, DXCC correspondence and Op Aid No. 7

Two Directors of the ARRL attended the DX Forum in Fresno and asked for discussion and an opinion of those attending about their feelings. The consensus was that DXers didn't object to the concept of services being self supporting. They did object to other services also not being included and asked that the matter of fees be deferred pending study and determination of a fee schedule for other operating awards, and that they all be implemented at the same time.

Ellen White, W1YL, Deputy Communications Manager of the ARRL, announced that there would be a charge for the new edition of the Repeater Directory. It's understood that another ARRL Director at the DX Forum at Dayton a week later announced that fees were a closed matter, not a matter to be discussed further by DXers, and would not listen to any further discussion.

The West Coast DX Bulletin wrote ARRL about the fees. The answer from George Hart, Communications Manager, said that there were no fees intended at the present time for other services. George said, "Most of them are awards for public service or for the betterment of Amateur Radio." George further stated, "Some of the less obviously beneficial ones (awards) will have to pay their own way." It looks like DX isn't for the betterment of Amateur Radio and

June 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.

UT	AFRI	ASIA	EURO	SOAM	SPAC
		JUNE 1975			
01	9.4	18.6	13.7	17.3	21.5
02	8.1	19.3	13.4	17.0	21.7
03	8.7	19.0	13.4	15.1	22.1
04	12.5	18.7	13.7	12.9	22.1
05	13.0	19.3	14.2	11.9	21.2
06	11.1	17.9	13.7	11.0	19.3
07	9.5	16.7	12.5	9.5	16.6
08	9.1	16.2	11.6	8.4	14.0
09	8.4	15.3	10.8	9.7	12.7
10	8.4	13.9	10.4	12.5	12.7
11	9.2	12.5	11.5	12.5	13.2
12	10.5	12.0	12.8	13.1	13.3
13	12.0	12.7	14.6	15.4	12.8
14	13.3	14.1	16.4	17.8	13.4
15	14.3	15.7	17.3	18.6	14.0
16	13.6	15.0	17.2	18.0	13.9
17	13.8	14.6	17.0	18.1	12.9
18	14.0	14.6	17.0	19.5	12.1
19	14.1	15.9	17.3	21.2	12.8
20	15.3	17.9	17.7	22.5	14.9
21	13.9	19.3	17.7	22.3	17.6
22	11.7	19.5	17.1	20.5	19.8
23	10.9	19.3	16.1	18.2	21.0
24	10.4	18.8	14.2	17.1	21.4

JG1MTJ visited the April business meeting of the Lockheed ERC Amateur Radio Club (W6LS). He told us his views on Amateur Radio in Japan. Carl Welsh, WN6FNM, had talked to Hiro on the 15 meter Novice band and had invited him to attend our meeting while he was in this country on business — and Hiro accepted. The photo shows Carl, WN6FNM; Hiro Itokawa, JG1MTJ; and outgoing W6LS president, Dave Cox, WA6BIO.

DXCC is one of the less beneficial awards. I wonder who else is fostering international goodwill and why the League is expecting a great deal from DXers for the World Radio Conference.

While on the subject of DXCC a few statistics might be of interest. 980 DXCC certificates were issued in 1974, 640 for CW/Phone and 340 for Phone. There were 88 5-Band DXCC awards and 2,067 endorsements. 152,877 DXCC cards were checked. It is discouraging, however, to note that 164 advisory letters were sent out concerning altered QSL cards.

It should be noted that the plaque for working all the available countries as passed by the Board in January should be available soon.

Five Band DXCC

Applications currently being made for 5-Band DXCC are encountering problems in that the rules for this award are a little different than for DXCC. Credit is given only for current countries at the time of application; therefore, if you worked Okinawa or Swan Island you cannot count these and must then have worked 102 countries to make up for the deleted countries. The thought behind the wording in rules is that there is an inflation in the number of countries at any particular point in time due to the additions to the list. At the present time, if the deleted countries could be counted, there would be a five percent advantage to those people making application now over the people that made application in 1969/1970.

QSL Managers Directory

The 1975 edition of the QSL Managers Director is now available. This edition is the largest collection of QSL information ever published containing 52 pages of information including over 5,400 managers and over 2,700 addresses. This Directory is the first one ever to be computerized. The computer program causes some problem in the arrangement of information, but once the reader gets used to the system it should be easy to use.

Special Events

FCC Docket 20111 has been issued and will become effective on 27 May. This Docket establishes rules for licensing of special event stations. Application will be made by letter to the FCC, Washington, DC with the usual schedule of fees being applied; i.e. $29 total fee. The normal license term will be 30 days. A special event station may not be operated as a portable station and contesting will not be allowed. Such licenses will be available only to holders of Amateur Extra Class or the Advanced Class license.

Here and There

Don't forget the 23rd Annual Northwest DX Convention, hosted by the Western Washington DX Club, at the Double Tree Inn on 2-3 August 1975. Information from WWDXC, 5608 37th S.W., Seattle, WA 98126. Registration is $17 before 21 July.

Pictured is my 9 year old daughter, Theresa Fair, with her 4th grade social studies project which earned her an "A+". Her project is made up of DX QSL cards and articles from **Worldradio**. Others might care to do the same type of project and gain exposure for the good of Amateur Radio. The use of LED devices on the map and magnetic reed switches would turn it into a good science project. **W.V. Fair** (W4GIW, PJ9GIW, VP2VAV, ZF1WF, VP5DX)

Those making the Bicentennial in the east next year might plan to take in the ARRL Atlantic Division Convention to be held in Philadelphia 23-25 July 1976.

OSHA has proposed some pretty heavy tower requirements and Rohn is soliciting input from tower users and installers. A copy of the Rohn survey may be obtained by writing Dick Kleine at Rohn, Box 2000, Peoria, IL 61601.

AMSAT has a QSL bureau for OSCAR QSLs which is handled by Dennis Grindrod, WA1EHF.

Thanks for information to the West Coast DX Bulletin and the Southern California DX Club Bulletin.

REPEATERS

SOS — Save our Simplex

by Gordon Schlesinger, WA6LBV

I want to propose a simple, straightforward idea. It's not original with me — in fact it's pretty old. That idea is FM simplex — direct, point-to-point communications.

In the repeater fever of the past few years a lot of FM'ers have lost sight of simplex, and many newcomers have never been exposed to it. But FM originated on simplex in a time when the few VHF repeaters around were using A3 double sideband, inserted carrier emissions (otherwise known as AM). It worked well then; it ought to work well again.

But how can we get people to break their dependence on repeaters and try simplex? I have an insidious plan. Most repeater users (typically those on 2 meters) have more than one FM transceiver available in their shacks. Usually there is a "base station" and a walkie-talkie; sometimes there are two or more radios around that can be pressed into service as base stations. How about putting the walkie-talkie to use as a repeater monitor, and leave the base station with its roof-top antenna listening to one of the recognized simplex channels? Usually the repeater talk-back bombs into most of its users so a walkie-talkie sitting on the operating table will hear it "full quieting", even on its own antenna. Why tie up a base station just to monitor the repeater?

Listening to a simplex channel for a while will demonstrate that communications around the local area are quite feasible via simplex. Fairly quickly the neophyte simplexer will discover that the useable range between his base station and another base station, or even a mobile, is quite a bit greater than he might have guessed at first. Simplex contacts should then quickly ensue. And nothing is sacrificed with this scheme because the operator is always monitoring the repeater.

Any operator can easily monitor both a repeater channel and a simplex channel simultaneously, but he can talk on only one channel at a time. Thus only one transmitter is really required and that one can be the base station, especially if the walkie-talkie doesn't have quite enough poop to make it into the repeater. Rotating the channel select knob takes the base station transmitter back and forth between the simplex channel and the repeater input channel.

Now for the next part of my nefarious plan. Once the simplex habit is started, how about equipping the station with some "dedicated" channel monitors for continuous listening to either the repeater or the simplex channel? And what would be better for this than some inexpensive surplus commercial tube receiver strips?

Most commercial two-way radio users don't use all-tube mobile radios any longer so these surplus radios (Motorola, GE, RCA, etc.) abound, and at inexpensive prices. About $10 would be a reasonable price for a tube receiver strip from one of these mobiles.

Since base stations usually operate at a relatively constant temperature, high stability crystals and ovens are not really required at VHF, so there's no great expense for a receive crystal. The power supply requirements are minimal for these receivers, usually 6 or 12 volts (ac is OK) at a few amps and 200 volts dc at about 60 ma. Speakers and volume and squelch pots can be scrounged easily enough. Most advanced FMers can provide tune-up and servicing information for these strips, and are generally interested enough in helping out (but don't drop a fresh receiver off with one of them and expect to pick it up later fully tuned up). Presto, for about $15 you can have a permanent, dedicated channel monitor, making it easier to keep tabs on a favorite simplex channel.

But you gain more than just another receiver. You have a natural lead-in to working on radios — to doing your own servicing and maintainance, gaining knowledge about radios and how they are designed, taking pride in your own work, and having something else to do in addition to talking on the radio. All this for a $15 investment.

More important, even, by experimenting with simplex, FMers will discover that not all communications need a repeater. And the all-too-familiar case of two line-of-sight base station operators tying up the local repeater might just become a thing of the past. With expanded simplex communications leading to decreased usage of repeaters, maybe the intense demands on the repeater spectrum would lessen, leading to only one repeater per channel pair per area instead of 3 or 4. Then those repeaters could remain relatively quiet and always available to carry only those communications which actually require them. That's called "spectrum conservation."

It's not an original idea. But it's worth rediscovering.

•

ARE YOU A

Channel Hog?

Channel Hogs? Yes, we do have them on CFMC. But rather than mention any names, just give yourself the following little test. If you answer yes to 2 or more of these questions, you are a Channel Hog, and should adjust your operating procedures accordingly! Remember we have over 250 members — are you giving everyone else a chance?

1. Do you find yourself using the repeater everyday for more than 15 minutes during the rush hour?
2. Do you frequently find yourself signing off only because you have reached destination?
3. Do you talk to the same stations for hours on end every evening?
4. Do you spend all weekend talking on the repeater?
5. Do you find people are frequently breaking in to your QSO to pass traffic to others?
6. Do you frequently get into QSO's that last a half hour or more at any time?
7. Are you always looking for a QSO, calling everybody you hear, frequently "going QRZ," and breaking into QSO's?
8. Do you continue talking long after you've run out of things to say?

Well, how did you do? If it turns out that you are a Channel Hog, we suggest finding a few simplex channels for your long-winded rag-chews, joining a couple more repeaters so you can spread your activity around, or getting on 20 meter SSB with a kilowatt and 6 elements.

Remember, the repeater is there to use -- never be afraid to talk on it. But give the 256 other club members, numerous transients traveling through, and even the local freeloaders a chance to get their traffic through.

Squelch Tale — Chicago FM Club

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Doing something with it

by John Rice, W9MMB

It's a good time to review some aspects of getting good emergency traffic reports into our local police.

When doing this, mobile and base station operators should try to provide all of the following information in their reports:

1. Location — as precise as possible.
2. Injuries — if unknown, say so!
3. Number of cars involved, road blockage, will wrecker be needed.
4. Base stations leave your number with the police operator in case he wants to reach you for further help.

Be clear and concise — long-winded explanations just delay things. When weather is particularly bad police and communications systems will be busy and reports on minor "fender-benders" cannot be acted on. Use good judgment.

Remember, emergency traffic has the priority and all other traffic on the channel should stop until it's clear.

Mike Shy

•

If you are one of those people who are saying it can't be done ... then stay out of the way of the people who are doing it.

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

IC-230 67 channels with 30KHz separation for simplex operation from 146.01 to 147.99MHz, synthesized with INOUE'S unique Phase Locked Loop (PLL) system. One switch puts you up or down 600KHz for use with repeaters. Modular construction makes service a snap if its ever needed. Helical filters, MOSFET front end, and an Automatic Protection Circuit, for the final transistors, are only some of the outstanding features of the IC-230. It's the great synthesized two meter radio today—and will still be tomorrow!

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.

The **IC-3PA** is a regulated DC power supply for all the INOUE mobile transceivers. Use it with your IC-230 for base operation. It's completely regulated, and gives you an indication of its operating condition; normal, low voltage, excessive current, or if the protection circuit is working. These are shown through the use of eye-catching indicator lamps. There is also a built-in speaker in the cabinet.

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TELEVISION

Bill DeWitt, W2DD

CAMERA SSTV ET TV RAPIDE

Cop MacDonald, WØORX, the inventor of slow scan television as used by thousands of amateurs all over the world, is currently unable to use the system he invented.

The reason? Cop recently moved to Halifax, Nova Scotia, and the reciprocal licensing arrangements do not permit him to use SSTV. In order to secure an endorsement for SSTV operation Cop will have to acquire a Canadian amateur radio license. This is the law and everyone has to comply, but you can just bet that Cop will be taking that examination as soon as possible. What a paradox!

A recent letter from Jean P. Grillere, F6BIG, indicates that there are now about 200 active SSTV stations in France. Jean's five element ZL special and beautiful location (near Annecy) account for his excellent signal on 15 and 20 meters.

His television gear includes a camera and monitor manufactured in France by his brother-in-law Jean Marmillon, F2IS. The accompanying photographs show the "Master" Monitor, and the "National" Camera. The monitor screen is 4x4 inches, a tuning meter is provided, and the whole works is packaged in a cabinet approximately 6½x9½x12 inches. The camera has both fast and slow scan outputs. I presume that the fast scan output is at the French standard. The means of deriving the slow scan image is not spelled out in the brochure, but the control box for the camera apparently contains either a scan conversion or sampling device. Jean reports that the image brightness on the Master Monitor is excellent. The quality of Jean's slow scan pictures is so good that I felt compelled to make some photos off the Robot screen for the Grillere family. They were delighted.

What's a handsome fellow alongside a commercial broadcasting mike doing in an amateur television column? Why that's VO1BL, Bob Engelbrecht of St. John's New Foundland, whose voice is well known to CJON listeners. Slow scanners working Bob are very apt to see a picture of the Cabot Tower situated on Signal Hill, site of the first trans-Atlantic radio messages received by Marconi in 1901. (I wonder how the sun spot cycle stood at the time!)

Incidentally, V01BL very generously sent me a first day cover commemorative envelope on the recent anniversary of Marconi's initial success. I have turned this fine gift over to the Antique Wireless Association's Museum to add to their collection of Marconi memorabilia. Thanks again, Bob!

How many non-licensed SSTV viewers do you suppose there are in the world today? Well, I know of one, and he's racked up a score of 61 countries received in the three years he's been watching the slow scan images. Pictured on this page is Dr. John H. Woodruff, a retired professor of political science, living in Durham, NH, who uses a Robot Monitor and a Galaxy R-530 receiver. Dr. Woodruff tapes and photographs most of the stations he receives. He has experimented with closed circuit color SSTV (he also has a camera), and has received color SSTV from Jean Nicolas, F6BDJ.

Dr. Woodruff, who is an accomplished photographer, says that it is difficult for him to understand why SSTV amateurs so seldom show pictures of their homes, gardens, cars, or scenes of local interest. In this connection he has developed an excellent technique for televising 35 mm slides. This is an approach to providing less stereotyped picture material that many operators may wish to consider.

A short wave listener, too, Dr. Woodruff has suggested in correspondence that perhaps the day will come when some of the megawatt short wave broadcast stations will transmit a few frames of slow scan television along with their news programs. With only a few thousand monitors in the world this may take a while, but with all that power—not a bad idea! Are there any other non-amateur SSTV viewers out there in our Worldradio News coverage? If so, let's hear from you. Meantime, I'll be busy trying to convert Dr. Woodruff to the ranks of Amateur Radio. We need him!

George Davis, VE3BBW, sent me another copy of "The Ontario Amateur" just recently. This nifty little publication dealing with both FM and ATV is published by the Radio Society of Ontario, and edited by VE3BBW. One news item covered in TOA states that Tom Atkins, VE3CDM, Steve Chishom, VE4AI, and George, have been appointed to an adhoc committee chaired by Art Stark, VE3ZS, to work with Canada's delegation to the forthcoming ITU conference. This committee is soliciting valid comments on VHF subjects which may be affected by international regulations emanating from the ITU meeting.

Sounds like a good idea that might be picked up by other amateur groups all around the world. VE hams who would like to make their comments known should write to VE3BBW via the RSO P.O. Box 334, Toronto, Ont. Canada. ZIP M8Z5P7. (George, are you sure that's not a tube number?) ATVers everywhere should get on the ball and talk frequency requirements with their ITU advisers!

Dayton's Hamvention will have come and gone by the time you read this column. But in the meantime, yours truly will be there and have the pleasure of meeting many SSTVers and other WRN readers in person. I'll have a separate report on the Dayton scene—in this issue if I can make the deadline, but later for sure. The entire Hamvention Committee has really knocked themselves out to make this meeting a success and they deserve some rousing cheers. A special salute from all SSTV buffs to Bob Zimmerman, W8DPW; Ken Mills, W8RLY; and George Shearer, WA8IHC, for their help in getting us all together to the extent that it was possible! Don't forget the Western N.Y. Hamfest and VHF Conference at Rochester, N.Y. on Saturday, May 31.

One of the rewarding aspects of conducting this column is the receipt of correspondence from operators all over the world. The camaraderie of those with similar interests is warming and the eagerness to share information and help each other is an attribute that could be most useful in other international relationships!

In a related but somewhat different vein, I was delighted to hear that the profile article about Eddie Collins, W4MS, resulted in the renewal of an old friendship. One of Eddie's friends who had lost track of him, contacted Eddie and Clyde after reading the "Pioneer Still Pioneering" article in the February issue of WRN.

Your letters and comments are always welcome at 2112 Turk Hill Rd., Fairport, N.Y. 14450.

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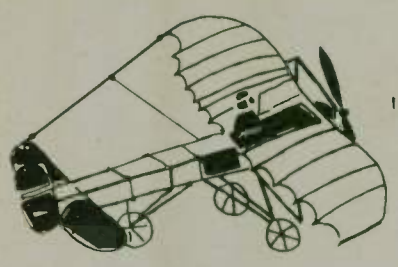


'Vern Weiss, WA9VLK

Each month we, as pilots, are presented with a number of new products on the market.

These products range all the way from aircraft windshield anti-icer to sophisticated weather radar systems. Much of this aerobilia is genuinely helpful to the aviator. Much of it is junk. With the scope of this column being radio communications/ electronics as they apply to flying, I periodically write a little something concerning items which might be of interest ... or uninterest ... to those amateurs who fly. These write-ups will tell it how I see it. If I try something out and it is worthless, you can be assured that I will not lure you into laying out cold cash for the product. Likewise, you will get an honest and fair appraisal when I stumble onto a goody — like now.

In my aerial escapades it seems that every FBO I walk into has a glass display case with all kinds of IFR hoods, logbooks and owner's manuals for sale. If one looks close enough, tucked in the back, he will find a teensie-weensie little black gizmo with a single button adorning the front.

The unit I speak of is the Xiconex Aviation Weather Sentry. The Weather Sentry is a converter for use with your car radio, and with the single punch of a button it brings in the nearest low frequency Flight Service Station transcribed weather broadcasts (TWEB). It installs like any other converter except that power is supplied by a nine volt battery (included). The Sentry draws about 5 ma, so the nine volt battery could easily last a year or more. Another advantage of the battery is engine noise is at a minimum (even in my noisy Buick!). The Weather Sentry is pre-set at Xiconex to your nearest 200-400 kHz FSS TWEB frequency. Installation can be completed in slightly over five minutes and not a single hole or screw has to be driven. To save battery drain a light is not used in the on/off button to indicate when the Weather Sentry is on, but instead a flourescent orange dot flops out which is just as visible at night.

I am certain there are all sorts of raised eyebrows belonging to guys doubting the performance of the Sentry. After all, how could such a unit operate in MY home town, 30 miles away? Answer: easy. Sure the FSS TWEB stations vary in power, but I daresay that anyone living within 80 miles of one of these stations will have no problem receiving 24-hour weather briefings in his car. In fact the night I installed mine I jimmied the tuned circuit (again, the Weather Sentry is fixed-frequency) a little to see if anything else could be heard and sure enough, the Peoria, Illinois non-directional beacon over 100 miles away boomed-in wildly, as did a number of other 75-mile Indiana stations. The Sentry's got a hot little receiver, and tech-sheet specifications published by the Xiconex company are on the conservative side.

What are TWEBs? They are winds aloft, weather synopsis', area forecasts, route forecasts, AIRMETS,SIGMETS and station weather reports (temps, dewpoints, altimeter setting, etc).

The Xiconex Weather Sentry, to me, is worth many times its $36.50 price tag, and if you fly daily cross-country and spend a dime each time for a phone weather briefing you could have it paid-for in a year or so.

Yes, Virginia, the little black gadget in the glass display case does work ... and I heartily encourage anyone who flies to have one in his car. If your local FBO is out (he's probably "trying it" for a few weeks in his car) write to Xiconex at 2483 East Bayshore Road, Suite 209, Palo Alto, California 94303. It's a handy little thing to have!

Last month I mentioned a few frequencies used by various aviation interests. My feeble memory seems to recall stating that I had a few more frequencies to print this month, including the Presidential Plane, Air Force One. Obviously there are some secret frequencies which must be used (Yes, Budweiser Bill, even more secret than the ones you and Polecat talk on with your sliders!), but many times AF-1 can be found on 6670 kHz, 6755 kHz, and 9030 kHz. During a hurricane season some pretty interesting listening can be found on 9014 kHz and 13.222.5 MHz, the U.S. Navy Hurricane Hunter Net. And finally, the Air Force NORAD (North American Air Defense) can be found on 8796.5 kHz, 12.338 MHz, 13.131 MHz, and 17.335 MHz. From time to time I will

(*please turn to page 38*)

MARITIME MOBILE

Bill Yost, WA6PIU

As maritime mobile editor, I frequently get letters asking my advice on the relative merits of SSB transceivers suitable for MM use.

It has always been difficult to recommend one rig as more ideally suited since many are feasible. It is easy, however, to set MM criteria that would eliminate most rigs, especially in small boat installations. Efficiency, compactness, corrosion resistance, waterproof design, and the ability to withstand vibration are all important factors. While no rig made is ideally suited, there have been many recent semi-solid state designs which would be satisfactory. The requirement of tubes in the final and driver stages, however, has kept up the weight and power consumption, making battery operation very limited in the case of sailboats.

More recently with the advent of H.F. transistor finals, a major breakthrough has occurred. The benefits to the mobile operator are most obvious. With no high voltage requirements, the weight of a transformer and D.C. switching circuits is eliminated. No tube filaments reduces receive current at least 10-fold. While several manufactures have incorporated the final transistor into their transceivers, one rig in particular stands alone in its ability to serve the MM operator. Enter the ATLAS 215.

My first contact with this rig was at the SAROC convention under its original 4 band configuration — the ATLAS 180. There I was able to talk to Herb Johnson, W6QKI, about the development and philosophy of the transceiver. It turns out that the ATLAS was the secondary benefactor of thousands of dollars of R & D expended on a military contract to update the old GI walkie-talkie. Under a separate contract with SouthCom International, the amateur offspring was developed. Thus, all the compactness, reliability and performance demanded by the military strongly influenced the final version of the ATLAS.

The basic design philosophy in one word is simplicity. Primarily oriented toward the mobile operator, the ATLAS may lack some of the features we are used to seeing in transceivers. Most of the design effort has gone into the radio itself. Rather than hang a lot of accessories on a poor radio, they have perfected the transceiver, leaving the accessories to the option of the operator.

Without paraphrasing the excellent review given this radio by Al Maston, W6JYQ, (WRN, June 1974) I shall look specifically at features relevant to MM use.

(1) Current consumption: probably the most important consideration with battery supplies. On receive averages about 0.2 amps. The dial light which can be shut off reduces receive current to only 0.1 amp. On transmit, while peaking at 16 amps, averages much less. It would not blow a 6 amp fuse during modulation. On a recent MM endurance run I was on the air six hours and had no trouble starting the diesel the next morning.

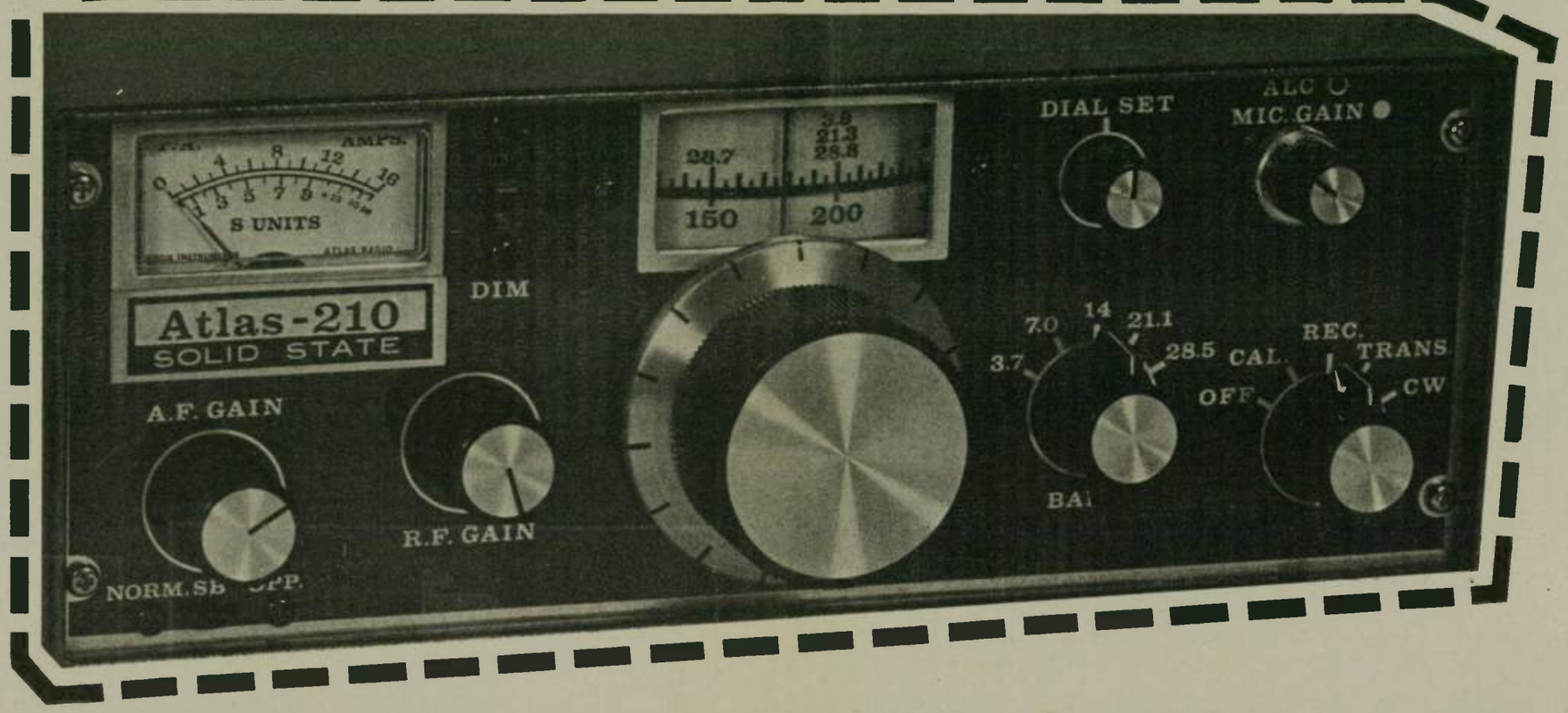
(2) Ultra-quick band switching and no tune up whatsoever. Assuming that you are on a multiband antenna, you can QSY from 14.250 to 7.250 to 3.950 with the flick of a bandswitch knob. There is no cranking the VFO back and forth when changing from 75 to 40. When operating with an antenna tuner simply increase the gain to give some swr reading, turn the knobs on the tuner for a minimum and you're on. I can change bands in the time it takes to tack.

(3) Ability to work the Coast Guard: Plug in a xtal oscillator of the desired frequency and you're in direct contact with search and rescue operations — hopefully never needed. While the radio isn't type accepted for marine band use, for emergency purposes it is ready to go. Emergencies are probably the only reason you'd need to utilize the marine band anyway! This feature makes this radio the greatest MM communication package around. (It should be noted that a factory modification is necessary to achieve this feature.)

In looking at possible improvements, I do recommend certain modifications to make the rig more seaworthy and versatile.

(*please turn to page 37*)

CAUTION!



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Be ready to spend $599 for the finest solid state 5 Band SSB Transceiver on the market today.

From its new plug-in design that provides quick transfer from mobile mount to AC Console, to its unprecedented selectivity of 9200 cycles wide at 120 db down, the Atlas 210 introduces a new era in state of the art circuit design and performance specs.

The Atlas 210 covers 10 through 80 meters, and the companion 215 covers 15 through 160 meters. Both are rated at a hefty 200 watts PEP input. (120 watts on 10 meters.)

Weighing less than 7 pounds, the Atlas 210/215 is only 9½" wide x 3½" high x 9½" deep. For complete details on the Atlas 210 & 215, see your Atlas dealer.

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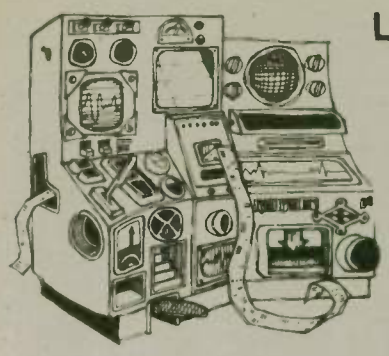

VHF-UHF

Lou Anciaux, WB6NMT

Thousand mile communications at VHF, on a regular basis? Certainly.

For many years the well-equipped amateur has been able to establish decent communications far in excess of the 'line-of-sight' paths of a few miles usually thought of at VHF. Several propagation mechanisms might allow these increased distances to be covered.

Tropospheric ducts and low elevation scattering are encountered by most everyone who uses any kind of VHF gear. Bouncing off mountains, buildings, aircraft, etc. is quite common. Not so common, but rather well known, is bouncing from the moon. Another, not so commonly used mode, is bouncing, or better described as scattering, from the various anomalies within the troposphere. This is known, naturally, as tropospheric scatter. Another similar scatter mode uses anomalies in the ionosphere and is known as ionospheric scatter. Another scatter mode common to the Northern U.S. is auroral scatter, where signals are scattered from the aurora.

Auroral scatter signals sound like the other fellow's rig has gone to pot, but it is a neat way to get goodly distances at VHF. There is another scatter mode which uses the ionosphere and covers the gap between two hemispheres over the equator. Its name is trans-equatorial scatter, or TE. There are others but these represent the bulk of what most VHFers use to extend their DX coverage. Of course F2 at 50 MHz and Es at 50 and 144 MHz are also used.

Es, or sporadic E, is probably the most widely used DX mode aside from the tropo ducts which are somewhat more local in extent. Tropo has been used for DX in excess of 2500 mile paths, but typically most use is within a 400-600 mile range and under.

Third in usage is probably another scatter mode not yet mentioned. This mode utilizes the ionization trail left by a burned meteor. If the ionization is sufficient, i.e. the ion density great enough to reflect radio waves and path geometry correctly plus other considerations, it may be possible to communicate between two points separated 400-1400 miles or so.

Since the meteor burns at high altitudes, on the order of 50-100 miles, one can see how the distance to be covered is limited to about 1400 miles maximum. At what altitude the meteors tend to burn is a function of its velocity. The density of the trail is very much dependent upon the meteor size. Small grains of sand will generate enough of a trail to allow a 50 MHz signal a good path for several seconds. A small rock will give enough for a two meter path for 30-60 seconds. Large rocks really make a path for us, not to mention large holes in the ground.

Naturally the numbers of good sized meteors available decreases with physical size. Small dust particles arrive at several per second, grains of sand at perhaps a few per minute, and large rocks at a few per thousands of years. The numbers per unit time are highly variable. Daily the quantity is lowest around 6 p.m. local time and highest around 6 a.m. local. This is due to the direction your part of the earth is facing along our orbit at any one time. During the morning we are facing along the orbital path and thus may observe both those meteors we are catching up with as well as those catching up with us. Actually we see the meteors coming at us from both directions in the morning. In the evening we see only those that do indeed catch up with us, as our backside is to the direction we are travelling.

The largest variation in numbers arriving is due to streams of matter present along our orbit, through which the Earth passes. These much higher density regions of extra-terrestial matter give rise to the rich meteor showers. During these showers the rate of encountering larger meteors is increased 100-fold or more. This is why the ping-jockeys are so active, and also why so much is done in the early morning hours.

Now, how can one listen in and perhaps even participate in this? The easiest way to observe meteors is to listen on 50.110 MHz with a beam pointed towards some population center 300-1000 miles away. Activity seems to congregate on this frequency in most areas of the country. The lower frequencies are more readily propagated by meteor trails, and the bulk of the higher frequency work is usually done on a pre-arranged sked basis.

During the active portions of the day, such as 7-10 a.m. or p.m., a few hours listening during the May-December part of the year will usually yield a few meteor bursts. These bursts may be so short as to be only a ping or short syllable, or the burst might be so loud and of so many seconds duration you think the band has opened. More often a burst will last a few seconds and you will hear someone talking and catch part of a sentence or two. Once you have caught a few bursts your ear begins to be tuned-in and more and more stuff is heard, or so it seems.

A very good period to listen for meteors is during the Saturday and Sunday a.m. period. Considerable activity is to be heard around 50.1 to 50.125 MHz. The West Coast has been using a 30 second sequence for several years with considerable success. Stations who are transmitting in a northerly or easterly direction will transmit the first 30 seconds of each minute, for S and W directions, the second 30 seconds.

This 30 second period, using WWV as the time standard, allows one to know when to transmit and when to receive, even though he may not be able to hear the other station at the end of the 30 second period. By holding to this sequence many in the same area may participate without causing undue QRM to each other.

There is always the clown who either can't tell time or insists he must transmit in the opposite time slot. Most of the time a gentle nudge to him about the sequencing will suffice. Another problem is the local rag-chewers who insist on settling on top of the DX station in order to hold their morning chit-chat.

Aside from the above problems one may enjoy quite reliable QSOs with a station 1,000 miles away. Of course this does presuppose that the two stations involved are well-equipped. KW amplifiers, decent antennas, and low noise conditions are a must. But there is much for the lesser equipped station. Even the 100 W rigs into a 5- or 6-element 6-meter antenna will allow very good QSOs to be had.

This lower power requires something more for success. The something is operating technique. Unfortunately it can't be purchased at the local emporium; however, it can be obtained by practice and observation. During the allotted 30 seconds only that info necessary need be sent. By not including your QTH, name and bits of trivia, only calls and reports need be sent. Once you have received that same info an acknowledgement is needed. After this info has been sent and received, and if signals are holding up and there aren't 10 others waiting, you can try to pass the trivia. During contests this method works very well for the contester to increase his sections.

For meteor scatter at the higher frequencies the best method is by a pre-arranged sked. Both stations should be equipped with 1/2KW or more and a moderate-sized antenna. Of course good ears are a must as always. A look at the 144 MHz box in the VHF column of QST will give you the guys most active in your area. Most will be happy to assist you in getting started and help get you onto a sked of theirs for listening and learning.

For specific questions you might have, drop me an SASE with them. For more information the articles mentioned last month are excellent for more details into what actually is taking place. Books on radio, radar and meteor astronomy at your library will give you ample reading if desired.

A last comment, don't cut short your low power. At 50 MHz many QSOs have been had with just a handful of watts. The prime consideration is, for high meteor activity periods, using the 30 second sequences and only transmitting calls and reports. If you adhere to this you will have some success. It may take a while but, like any weak signal mode, perseverance yields results.

Rather than attack any activities and what some are doing, I feel the rest of this column would be best devoted to the very important issues of Docket 20282. By now everyone who isn't asleep has heard and no doubt discussed some of the many facets of this important docket. If you are a member of the ARRL you should have received your questionnaire on this docket by now.

June is fast approaching and your comments are needed. Send them to the FCC. Don't send them to your congressman, the president, AARL, **QST**, **Ham Radio**, **73** or **Worldradio**. Send them to the FCC. (Editor's Note: It is not our idea to contradict

(*please turn to page 33*)

New Larsen Magnetic Mount with super hold

This new Larsen super-hold magnetic mount has a grip you won't believe. Space age development in permanent magnets makes this new design way ahead of previous types. Low down silhouette. Full capacitance coupling to metal surface assures adequate ground plane for full antenna efficiency. Comes complete with 12 feet of coax and plug attached. Five models to choose from and to fit all popular mobile antennas. Just screw the antenna on the Larsen Magnetic Mount. Place on the vehicle (fender, rooftop, trunk lid, or whatever). Run coax to equipment and you're all set. **No highway vehicle speed will ever remove it.**

New Larsen Gutter Clamp Mount for quick, easy temporary antenna mount

The New Larsen Gutter Clamp Mount is the simple 1-2-3 answer for temporary mobile antenna mounting. Just screw on the antenna of your choice (5 models available to fit all popular makes and types of antenna). Clamp to your car or truck. Attach coax to your equipment and you're ready to go. Mount comes complete with 10 feet of coax and plug already attached. Heavy duty spring assures positive, no-mar hold. No tools required to mount or remove.

Send Today for just-off-the-press catalog sheets that give the full story on all models of Larsen Gutter Clamp and Larsen Magnetic Mounts. We'll include price data so you can see for yourself how you can get real economy of installation right along with reliable performance.

Larsen Antennas

11611 N.E. 50th Ave. P.O. Box 1686, Vancouver, WA 98663 Phone: 206/573-2722

In Canada write to:
Canadian Larsen Electronics, Ltd.
3021 East 28th Avenue Vancouver, B.C. V5R 1S6 Phone: 604/434-6187

For that communications difference you can HEAR . . . mount a Larsen Kūlrod Antenna on the Larsen Magnetic Mount and Gutter Clamp Mount. Models available to cover all communications frequencies . . . low band, 150 MHz band and UHF frequencies. If you're not using Larsen Kūlrod, you're not using the fastest growing make in America today.

7 Orbital

...ion with AMSAT, ...mann has published an ...AT-OSCAR orbital data ...endar 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:

Skip Reymann
P.O. Box 374
San Dimas, CA 91773
U.S.A.

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

•

A. Vilensky, 4X4MH

In the last few months there have been various articles published on the applications of OSCAR RTTY, SSTV and facsimile transmissions.

I would like to propose an experimental study concerning the possibility of psysiological data transmission. Such a link may be important in cases of isolated situations as ships at sea or disaster areas.

As a medical engineer, I would like to propose the following experiment.

The aim: To transmit ECG data.

THE TRANSMITTING END:

1. A man is connected to electrodes.
2. An ECG preamplifier, with line and VHF filters.
3. A frequency modulator around 1800 Hz with a frequency response between 0.1-100 Hz connected to the output of the ECG preamplifier.
4. SSB transmitter on the two-meter modulated by the signal derived from the frequency modulator.

THE RECEIVING END:

Alternative A

1. Ten-meter SSB receiver.
2. Frequency discriminator around 1800 Hz fed from the receiver.
3. A standard ECG recorder connected to the discr... output. ... SSB receiver.

Alterna...e patch connected to ...iver.

A telephone line linked to a medical center.

4. A frequency discriminator connected to the telephone line at the medical center.
5. Input terminal to cardiological recording equipment or analog-to-digital input for an on-line computer.

Alternative C

1. Ten-meter SSB receiver.
2. A high quality audio tape recorder. In this case data can be played back at any time after the contact. The information is then processed by the discriminator and treated as described in alternative A or alternative B.

I suggest to assemble the transmitting end in my station. I would prefer partners in Europe who have access to medical centers and a technical background.

I would appreciate any comments, and volunteers to assist with this project.

•

AMSAT-OSCAR 6

Period = 114.99456 minutes
Increment = 28.7490 deg/orbit
Operating schedule
2/10 ON (GMT Days)
EVENINGS
Monday, Thursday, Saturday
MORNINGS
Sunday (EVEN DAYS, Educational demonstrations only)
Input: 145.900 to 146.000
Output: 29.450 to 29.550

AMSAT-OSCAR 7

Period = 114.9450 + 0.0002 minutes
Increment = 28.736 deg/orbit
Inclination = 101.73
Operating Schedule
EVEN DAYS of year Mode B
ODD DAYS of year Mode A
WEDNESDAYS (Education and Bulletin use only. General communications not permitted.

Mode A

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

Mode B

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

Photos now available

8 by 10-inch full-color photographs of AMSAT-OSCAR 7 (artist's conception in space) are now available for $3 U.S. (or 20 IRC's) postpaid from:

Alan L. Bridges, WB4VXP
2881 South Main Street
Kennesaw, Georgia 30144 USA

Please make your check or money order payable to AMSAT.

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

ZL Net
Daily
1900 NZDST
3850 kHz LSB
Net Control ZL1WB

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Antenna

by Jerry Zulfa, WA6ABH

Probably the best answer to which antenna is best for OSCAR work is as follows: "If it works, use it — and if it doesn't, try something else." Seriously, the above statement should not be taken too lightly. All types of antennas have been used and, I might add, used successfully through OSCAR. I have heard of receiving antennas of nothing more than the equivalent of 16 feet of bare wire hanging out the window.

Most OSCAR stations consist of two separate antennas. One is for transmit (2 meters of 70 cm), and the other, obviously, is for receive (10 meters or 2 meters). Probably the most common arrangement is as follows: Yagi, dipole, quad or vertical for receive and a Yagi, quad or vertical for transmit. The combination you select will depend upon existing equipment and, as always, money available. I was unable to invest in additional antennas so I use a trap vertical (10 meters) and a 2 meter FM vertical. This is a limited array but several contacts have been made. Like I said earlier, "If it works, use it."

To get started I suggest you use your existing equipment. About the only thing I feel is very important to make or buy is a preamplifier, if your receiver lacks sensitivity on the high end. When building your OSCAR antenna farm always remember that the antenna gain on transmit effects the Effective Radiated Power and we must for the sake of OSCAR keep the power below the maximums suggested in earlier articles.

P.S. An inverted vee is also a good choice for both transmit and receive.

From "Splatter", Kern County ARC

40 wpm

from page 8

cation by code language. And I mean art. It is truly an art to learn to comprehend the English language when it is hurled at you at the rate of, say, 60 words per minute, 300 characters a minute, five every second. To gain such fluency takes skill, brains, application, and consistent persistence.

Although I was so turtle-like in my progress from 30 wpm to 35 wpm, a more snappy hare-like speed should be achieved by those of more sprightly reactions. The job of getting from listening to dits and dahs, which is all right for 20, 25, and 30 wpm, to listening for sounds of syllables and words which is demanded for 35 wpm and above, was long. It should take a much shorter time to go from 35 wpm to 40 wpm. For one thing, the period of being weaned from listening to dits and dahs to listening for sounds of syllables and words is over. For another thing, the ability to recognize word sounds should be accelerated from now on. Also, the number of familiar words should grow with repeated listenings, because of meeting them over and over. Then, too, longer words will be retained in the mind, and the longer the word the better the ability to retain still longer ones. So there seems to be hope that I may enter the super realm of 40 wpm and so get a vista of the region inhabited by the elite, the world of 40 words per minute and above.

Here's for trying for 40 wpm via the practice sessions transmitted by the Connecticut Wireless Association, W1EIA, and/or George Hart, W1NJM, on Mondays at 0103 GMT (Sunday 9:30 p.m. EDST), 3636/7085 kHz.

INTERFERENCE

Dr. Theodore Cohen, W4UMF

A recent article in **Electronic Engineering Times** (March 24 1975) indicated that modifications in audio equipment design are expected by the FCC as interference due to audio rectification becomes an increasing problem to users of home-entertainment equipment.

While the Commission does not at present have jurisdiction in the area of non-RF devices, Frank Rose, Design Engineer at the FCC, stated that the Commission now wishes to extend its authority into the field of audio frequency devices. To accomplish this, broad legislation will be presented to the Congress to encompass a variety of equipment types. Technical requirements would then be made part of the Commission's rules, allowing for flexibility to cover new products.

What prompted the FCC's move towards legislation were the more than 42,000 RFI complaints it received in 1974. And as in 1973, almost 38,000 of these complaints related to problems with home-entertainment devices, up 20 per cent from the number of cases reported in 1970. Rose views the need for RFI legislation as a necessary step to protect consumers from the increasing number of difficulties observed with audio equipment operated in RF fields.

Bob Luff, Engineering Analyst in the Office of Plans and Policy, FCC, viewed the problem of RFI as due partly to the switch from metal chassis to enclosures made of plastic and wood, as well as to the switch from tubes to transistors. Regardless, Ray Spence, Chief Engineer of the FCC, believes that susceptibility reduction could be accomplished at low cost by using bypass capacitors at semi-conductor diode junctions, a feeling echoed by Arthur Feller, an Engineer at the Commission. A spokesman for the Fisher Radio Corporation, however, rejected bypass capacitors as the solution to the total audio rectification interference problem. This spokesman stated that better susceptibility-reduction techniques would result in tremendous price hikes for the equipment involved. When reminded of the legislative package being compiled by the FCC, the Fisher spokesman replied: "They've been trying unsuccessfully to do that for the last 15 years."

The EET article indicated that the FCC and the ARRL expected complaints to continue to pour in until action is taken. As Bob Luff noted: "The time is right; the consumer is getting wiser as problems become more prevalent, and perhaps innovative techniques will be developed and applied in an economical way to alleviate the situation."

(Portions of the above are reprinted from **EET** by permission of its editor.)

Do you have an RFI problem? Have you reported it to the FCC? While the Commission's workload is such that reports of RFI cannot always be acknowledged, the only way the Commission will know that RFI problems exist is by your reports and letters.

It doesn't take much ... perhaps a few lines describing the home-entertainment equipment involved, the distance to the transmitting station, and so forth...but it will demonstrate that problems exist, and that they are increasing in number. Drop a short note on each RFI problem you encounter to: Federal Communications Commission, Washington, D.C., 20554.

And again ... don't expect an answer. Take satisfaction in knowing, however, that your 'vote' is being counted.

While you're at the typewriter or at your desk, why not report RFI cases to the Electronic Industries Association? We've found the EIA to be of assistance in resolving RFI cases, especially where the manufacturer involved is a member of the Association. Send a note, giving full details of the RFI problem encountered, to:

Ms. Sally Browne
Director of Consumer Affairs
Electronic Industries Association
2001 Eye Street, N.W.
Washington, D.C. 20006

Is it important to report each case of RFI? Certainly! The trend toward high-density living and planned communities, together with restrictive zoning laws and covenants (many of which are to protect the consumer from RFI, and specifically, TVI) suggests that RFI problems could increase substantially within the next few years.

Unless manufacturers take steps to correct design deficiencies at the point of manufacture, you and I may find that we have plenty of time to write letters in the near future, as our equipment lies in disuse due to RFI problems. The time is right for RFI legislation, and every letter written is one more step towards this goal.

In addition to the legislation being prepared by the FCC, we have received word that Congressman Charles Vanik (Ohio) is having RFI legislation prepared for submission on the floor of the House of Representatives. While the bill being prepared by Congressman Vanik's office has not been made public to date, we understand that it is very similar to the one which appears in the RFI Packet prepared by the ARRL RFI Task Group. For a copy of this bill and the RFI Packet, send a large (9x12) manila envelope, addressed to yourself and having 40 cents postage affixed, to:
Secretary
ARRL RFI Task Group
8603 Conover Place
Alexandria, Virginia 22308

As a final note, congratulations are extended to SMIRK, a 6 Meter organization with 720 members in 46 states and 12 countries. Spurred on by its President, Ray Clark, K5ZMS, SMIRK is actively seeking RFI legislation and resolution of RFI problems by a letter-writing campaign directed towards both the manufacturers and the Congress. SMIRK's efforts are appreciated by amateurs everywhere!

VHF-UHF

(*continued from page 30*)

columnists, as we allow them full freedom, but **Worldradio** would like to see copies of what you send so as to know what you are thinking. We think the other publications and ARRL would also. W6AJY.) Another don't is don't write an emotional tirade filled with factless comments and other associated drivel.

What is needed is a short, concise comment on each of the facets. If you have some facts or intelligent comments to make on a particular point then by all means make it. Long pages of discourse really don't get read. Short paragraphs or sentences on each point do. Time is short, so keep your comments the same.

Since you probably have most of the points at hand, and have discussed them with others, I won't take space or time repeating same. I will say something about the new Communicator proposal, reason being, I have heard a large number of amateurs saying outright they don't want "a CBer on my band."

If we look at the initial word that this new 'amateur' will have FM from 144 MHz up, things do seem a bit bleak. However, this is just a **proposed** ruling, and not necessarily what will be the final result. If we also observe the great inroads now being made to grab portions of our bands, and the fact that the next ITU frequency conference is just a jump away, the need for large numbers of users makes considerable sense.

Thus, by creating a new class of amateur license, this will allow a large number to be obtained in a short period, which is a big club to wield when numbers are the game. However, like most of you, I too do not want to see much of our present bands filled with a bunch of technically incompetent yakkers.

But, since this new class is similar to Novice, which means it is limited to small sub-bands, lower power, and is perhaps a stepping stone to a higher level, it makes sense to look at it from that angle.

Allowing this new class a small sub-portion on a couple of the VHF bands will keep those using said bands happy, since they aren't allowed to use the entire band. It will also allow us to see a goodly number of competent individuals, who are presently too lazy to study for the exam, a means of getting into Amateur Radio. Once there, many will see the joys of our hobby and put forth that little extra effort.

The major claim, that all those illegals on the 27 MHz band will be up doing the same thing, I feel is for the most part incorrect. The vast majority of those who are using 27MHz illegally work skip, and you can bet your boots they will not leave that for a band they can only work a 100 miles or so. That there may be some 'LIDs' coming up as well should be a small worry.

If you look at the fairly large numbers, who have licenses, presently raising hate and discontent with the 50 MHz SSB and 146 FM bands, that's only a small worry. By increasing the numbers of users to a repeater, for example, it becomes considerably easier to catch the jammer with a much broader spread of DFing stations looking for him. The day of the jammer is coming closer to an end.

For the other facets of the docket I have my opinions as do you, yours. Whatever they might be, carefully thinking out the various sides of each point will yield a smooth and intelligent comment. Forget you are only a user on the band and look at it from the viewpoint that you're just starting out. You want to get on the air, naturally with a minimum of effort. But you would like to be considered as part of the group, not as a lowly nothing. How many look down on a new Novice? This Communicator is exactly the same. He is a fellow in need of practice and knowledge. His skills come from practice, his knowledge comes from you and what you do and say. Mother FCC is about to give birth to a baby. You're the adopting parent. You may not get exactly the child you want, but the adult the child does become is dependent upon what you do, or don't do, for him during his youth.

Get those comments into the FCC at Washington, DC 20554 before June.

The June VHF Contest is just around the corner. Get an interested CBer to join you to see what it's all about.

Letters, etc. to 4519 Narragansett Ave., San Diego, CA 92107.

TRAFFIC

Paul Gagnon, WA6DEI

Traffic and sex

After reading that title I'm sure I have your attention up to this point. Now I can spring the real subject on you. **Docket 20282!** Don't stop reading now! This affects you!

Docket 20282 is commonly called the "Re-structuring" docket. The name is apropos since it is affecting every amateur radio operator. I don't want to discuss the contents of the docket since they have been widely disseminated, but I do want to point out why it affects you as a traffic handler.

What??? Yes, you heard right. It affects you, the traffic handler. About now some are ready to flip the page since there is a very small number of amateurs who actually are concerned about the future of our activity. Ten per cent of the amateurs (a high guess) care enough to file comments on this matter regardless of what I say. On the other end is 40 per cent of the amateurs who simply use amateur radio because it is here but won't take any action to mold its future and wouldn't care if it was gone tomorrow. It is the remaining 50 per cent whom I hope to convince that this docket is important and to motivate into action. Which percentage are you a part of? Since you are a **Worldradio** reader, I expect you are one of the "gung-ho."

A common attitude for a traffic handler is, "I operate 80 meters . . . I can handle most of the changes affecting me and I don't care about VHF, so why bother to waste my time filing?" Well, put the shoe on the other foot. What if this docket affected mostly 80 meters and the VHF operators didn't care? The point is: Amateur Radio is under fire and all amateurs must rally to keep it what we want it to be!

Some background on this docket is in order. First of all, this is a Notice of "Proposed" Rulemaking. "Proposed" means it is thrown out for comments. This is a due process that the FCC must follow in this type of proceeding. If you do not comment it may become a law as proposed. The FCC is asking for comments and now is your chance to get your two bits in. Don't wait until the ruling is made and complain about the FCC. They are giving us the benefit of the doubt in this whole matter. NOW is your chance to help chart the future of Amateur Radio.

The FCC has issued this Notice of Proposed Rulemaking to clear up some 35 dockets it has pending in this matter, especially the Class E Citizens Band docket. Several years ago, under the pressure of the Electronic Industries Association, the FCC issued a notice to give a portion of the 220 MHz amateur band to the Citizens radio service. The negative reaction from amateurs (and others) was pretty great compared to past responses (but not really that great considering the number of amateurs who didn't take time to file comments) and the FCC withheld a rulemaking.

Recent pressures by the EIA and the OTP, coupled with the fact that the decreasing number of amateurs doesn't give us much talk power at the upcoming **World Frequency Allocation meeting, led the FCC to issue this** proposal, hopefully to ease the EIA (et al) pressure for selling 220 MHz radios, provide an easy route into amateur radio to ease the mess on 27 MHz, and to increase the number of amateurs.

So look at the entire picture before making your conclusions. For instance: were you hoping for the WRAC to allocate a band at 60 meters to ease skip conditions during the winter? How much chance do you think 250,000 U.S. amateurs have to swing the international vote? What if they decide to cut the allocation of kHz on 80 meters?

The FCC hopes to double the number of amateurs in several years, primarily by creating a new class of operator's license **called the Communicator Class. There will be no code requirement is this proposal passes. That should excite some of you old** 100 per cent CW men! But even you are going to have to reevaluate and think of the overall picture before filing comments.

In order to create an incentive licensing structure the FCC is using frequency, emission, and power as incentives. In the case of the General class and the Technician class this means you will have to give up something. If you are presently using RTTY to deliver traffic you will no longer be able to do so. This and other specialized modes are being set aside as an incentive to upgrade. If you use two meters to deliver traffic locally you may find the mass influx of new operators too much for the existing two meter system to handle. You may want to request they be confined to 220 MHz rather than authorized all of two meters and above.

At any rate, you should be concerned. The future of Amateur Radio is being moulded. Send 50 cents (free for SASE to League members) to ARRL requesting a copy of the complete text. After careful study, file your comments objectively with the whole of Amateur Radio in mind. Remember, now is **your** opportunity to change the proposal. Do your part! June 16 is the deadline for filing comments.

Code or trash

"Have you ever wondered why it is so easy to copy some CW operators and not others? Obviously one operator has a 'better fist.' Some think it is a sign of good operating to be different and, as they think, distinctive. However, to the poor receiving operator it always ends up the same 'Trouble' with a capital 'T.'

When we learn CW, like learning anything, we have a tendency to mimic our teacher. As we increase in proficiency we may lose this habit, but if, like most of us, CW comes a little hard, we may never correct some of these bad habits.

I have heard of various methods of learning how to send CW, but most of them all get back to the same point. If you copy enough CW, both good and bad, you will soon train your ear, and when you have done this you will become a better CW sender. There are plenty of broadcasts that one can copy or practice. Besides the daily ARRL broadcasts there are still several press stations sending daily news by code. Checking into daily nets and handling messages will improve your CW ear and fist too.

In other words, an amateur with an outstanding 'fist' will, of necessity, be able to copy code at even the highest speeds. The only way to better your CW is with practice. Practice, even if only 10 to 15 minutes a day, will produce amazing results in a very short time. If you practice 30 minutes every Saturday you are wasting your time and would do better to take up golf.

Another method of practice, if the opportunity avails itself, is to translate written material to code, sight read that is. If you ride a bus to work you can do this with the advertising cards, or if in a car translate highway signs into 'dit-dah'.

CW sending and copying is, in my opinion, similar to speaking and reading a foreign language. A native American who is fluent in a foreign language is admired. I believe this same admiration should be extended to a good CW operator." (Robert Schmidt, W5GHP, in **Louisiana Net Bulletin**)

Traffic bits

1. A new handling instruction has been instituted by the ARRL Communications Dept. Remember where the handling instruction is used? — — in the preamble after the precedence and before your call. It provides you, the operator, with special instruction regarding the message. HXG: "Delivery by mail or landline toll call not required. If toll or other expense involved, cancel message and service originating station." This becomes the only type message you can cancel without asking permission of the originating station. In effect he is giving you permission in advance. Remember, when you do not deliver the message you must service the originating station to let him know it didn't go through. Otherwise he will assume it was delivered.

2. A new net has been started in Northeastern Ohio. Called "The Burning River Traffic Net," it meets twice each evening at 6 and 9:30 p.m., and is monitored frequently during the day for message traffic. It meets on 146.46 FM simplex and has liaison to the National Traffic System. This is your opportunity to originate message traffic to any point where "third party traffic" is legal. It also provides an outlet for traffic coming into this area of Ohio. (Kurt Meyers, W8IBX).

Amateur of the Year

For those of you in the ARRL Southwestern Division in Southern California and Arizona: The Southwestern Division Convention will be held this year on October 24,25, and 26 in Ventura. A great many new things are being planned including issuance of **Amateur of the Year** awards in three categories: a) acts of service to Amateur Radio which do not involve an emergency situation; b) emergency service reflecting outstanding action in providing emergency communication for a specific incident, or incidents, involving the protection of life and/or property; c) public service, including outstanding performance involving an emergency organization, communications for parades, or other major public events, phone patches, etc.

A beautiful plaque and framed certificate will be awarded each honoree at the banquet. Official nominations must be received by 26 Sept. 1975. Send a business size SASE to **Hamcon, Inc., PO Box 5131, Ventura, CA 93003, for** the official nomination forms.

4. R.F. Franklin, K6TP, has made an interesting proposal regarding establishment of Section Calling Frequencies. More info next month.

Historical key

(*continued from page 1*)

luck blossomed because this trip coincided with the proper sun spot cycle which made stateside contact a breeze, many years before anyone understood this phenomenon.

Recently, this spring, the Florida QCWA (Quarter Century Wireless Association) presented Mr. Schnell an award of meritorious service for making the first trans-Atlantic (to Nice, France) amateur contact on short waves. A sidelight of interest is that Frank Gunther, current head of this group of old-timers, and president of REL from Long Island, worked with Fred Schnell on tests of "Static Free" FM radio for the Chicago Police.

Prior to 1929 Fred Schnell worked with the Research Section of the Burgess Battery Company of Madison, Wisconsin, but he was a Chicago boy from the start. He got into radio operating while working for the Western Electric Company on 26th Street, near Cicero, Illinois. His co-worker would simulate wireless code with a ruler balanced on a pencil. From there onward it was radio code 100%. When he married, his wife, Pauline, learned the code after their meeting at the Riverview Roller Rink in 1918. Later she decided that one radio enthusiast was enough for one family.

Back in 1932, on 11 October, Mr. Schnell had commercial reasons for flying to Kansas City via United Air Lines. Just before arrival three Chicagoans were found unconcious in the Ford Tri-Motor plane by the co-pilot, among them, Fred, who was hospitalized at Kansas City. They had been gassed and overcome by carbon monoxide fumes from a defective exhaust heater. Later Schnell sued United Air Lines and National Air Transport for $100,000, alleging permanent heart injuries. An Appeals Court denied the claim and ruled against it.

Fred Schnell worked for the Chicago Police Radio Division, during which time he served as President of the Illinois Chapter of APCO, Inc. During World War II he served on the Communications Committee for the coordinator of all law enforcement agencies in Illinois, under Col. Gowenlock while on active duty at Great Lakes Training Center. After leaving "the City" he served as manager of the Parts Department of Motorola, Inc. (Galvin Manufacturing Company), most fittingly at North Pier Terminal of the Navy Pier.

A purist on telegraphic code, Fred recorded Ted Carnes, W9ETN, on "Slip Tape" (not audio), and complained that Ted (now Secretary of the Morse Telegraph Club) crowded the spacing too much. Ted responded that, due to being a "commercial operator", he had to deliver traffic in quick time and not spaces.

Besides his wife, Pauline, of 56 married years, he is survived by Richard E. (K9HPD) of Morton Grove, Illinois, an employee of Motorola, Inc.

There will never be another pioneer like Fred — at least, in amateur or Navy telegraph. SK

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Antibiotics quickly!

by Joe Oliveira, WB6BJM

On Sat., 12 April at 3 p.m. PT on 14285, I started a QSO with Alvaro de Macedo, PY2AN, as per schedule. No more than 15 seconds after contact was made he went into detail of being contacted by a family who was looking for an antibiotic. It was out of supply in Sao Paulo and was needed urgently by a patient described as "almost gone." The antibiotic was Aerosporin Polymyxin - BSO4. The QSO was to be half an hour - dinner and show were waiting at 5 p.m. — but what can you do when you know someone needs something like this right now, not the next day?

As I called various pharmacies I discovered that this was hospital business and I was referred to a few hospital pharmacies. I discovered that their supply was only five and a few 10. I needed 30.

The next problem was to get a prescription from a doctor. With the help of Joel Moss, W6BQR; Phil David, K6DLV; and Bob Lawson, K6MQG, I tried to locate a few of the doctors who operate WR6ABJ. No luck. Saturday afternoon everyone seemed to be out for a picnic.

Time was running out. The plane that was going to Sao Paulo was to leave at 10 p.m. The next flight wasn't until the following Tuesday.

Gary Aronoff, WB6UQA, came on WR6ABW and asked me what I was doing as he was "arabing" around town with nothing to do on a nice afternoon. I told him the story and a quick connection via WR6ABW auto patch put us in contact with a doctor whom Gary knows.

In seconds the prescription was telephoned to the various hospitals. It was now 7:30 p.m. and we had to drive over 150 miles in the city before we got to the airport. In Saturday night traffic in Los Angeles it seemed impossible to make the flight, but I worked the valley and Gary worked the southern section of Los Angeles. We were in contact via WR6ABW and we met at the airport. It was 9:30 p.m.

When we got to the airlines that had the flight leaving at 10 p.m. the agent told us that medicine has to go via air cargo and cannot be sent via commercial passenger flight.

Now what?

We luckily found a passenger and persuaded him to take the medicine on board with him. But it wasn't easy. The passenger thought it was a bomb, etc., etc., etc. We opened all the little glass jars and showed him the contents. Satisfied, off he went.

The passenger delivered the prescription to Customs in Sao Paulo. Alvaro, PY2AN, and Orlando Valone, PY2EQO, were waiting and rushed the antibiotics to the hospital, Sirco Libanes, in Sao Paulo. In some countries Customs will allow someone to die because some drugs and antibiotics are not permitted to enter, but luckily this was not the case.

On Wednesday, 16 April I received a call from the family who needed the medicine, thanking me for all the effort and informing me that the results were fantastic.

This was a simple little situation. As a matter of fact in our world of today, with all the communications available, amateur radio is antiquated. But the doctor required this particular antibiotic. It was no where to be found in Sao Paulo, short supply. It's up to the doctor to get the medicine; he couldn't. His doctor friend in Boston was out of town and he knew no one else. At this point he explained to the family and they made the initial contact with PY2AN via another amateur in the city. Alvaro contacted me. Using 20 meters and two meters, in less than 20 hours the medicine arrived — 8000 miles away.

For it being a weekend and all the problems up to the point of boarding, the medicine made it. I must tell you that Amateur Radio is really something. It accomplished something that was not possible to do via commercial means in a quick emergency because of red tape and time. Amateur Radio by-passed all this. (The passenger, Joe, traveling from Los Angeles to PY3-land, south of PY2, was great to get off at Sao Paulo and deliver the antibiotics to Customs.)

If you were on the other end you would have thought it was pretty neat.

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Clubs

from page 36

We'd like to find out the answers. This column is supposed to be a forum for clubs to exchange ideas on their successful programs.

One interesting idea we saw in a club bulletin was giving the clubs P.O. Box as the address for QSL cards as that would be easier for the overseas stations to understand than an unfamiliar sounding street name.

Another idea we heard of was people bringing their outgoing QSL cards to the club so that they could be pooled and sent out less expensively to one of the outgoing QSL bureaus.

We think that the club, if you want to make it so, could be one of the real "shining lights" of your amateur radio career and in your local community. Let's hear your thoughts.

CLUBS

Why is it that some amateur radio clubs are full of zip, zing and fire and others barely exist?

Why is it the Fresno Amateur Radio Club has sponsored a successful hamfest for 33 years and other clubs can't even put on a picnic?

Why does the Mount Diablo Amateur Radio Club sponsor Novice and General classes leading to about 100 new amateurs a year, and others snooze?

Why does the West Valley Amateur Radio Club want to put on a Division Convention and, as they put it, "make it spectacular," and some entire Divisions can't get it togther to have a convention for some years now?

Why is it that but few clubs make any effort whatsoever to get new licensees to their club meetings?

Why, when the ARRL polled their affiliated clubs, did only 82 per cent of the clubs say they would furnish a volunteer examiner on request? That means 18 per cent of the clubs said they would not!

Why do only half of the clubs have an officer or committee whose duty is public relations?

Why does the Hall of Science ARC (NY) put out a teriffic club bulletin and other clubs can't even find someone to turn the crank on the mimeo machine?

Why do only about one-third of the clubs have an emergency station and other clubs have complete vans with the generator in a trailer ready to go on a moment's notice?

Why is it that you can walk into some club meetings and you can feel the excitement, and in others you feel you are disturbing the dead?

Why is it that when a newcomer walks into one club meeting for the first time he will be welcomed with a smile and a handshake and be introduced to everyone, and at another club he is not even met with a grunt?

Why is it that for some clubs Field Day is the highlight of the year and they have a "whale of a time," and half the clubs can't even get three or four guys out to make an effort?

Why do many clubs have the annual banquet with family invited and others couldn't care less?

Why do many clubs have a before-meeting dinner or an after-meeting coffee shop stop or pizza bash and others just want to get home?

Why do some clubs make a real effort to bring interesting speakers to the club and others never even try?

Why do some clubs search out and get involved in furnishing communications for the different charitable fund raisers, boat races, civic activities, etc. and other clubs refuse when specifically asked?

Why do some clubs, with gusto, get into Sweepstakes and contests and others say, with a yawn, we're not competitive?

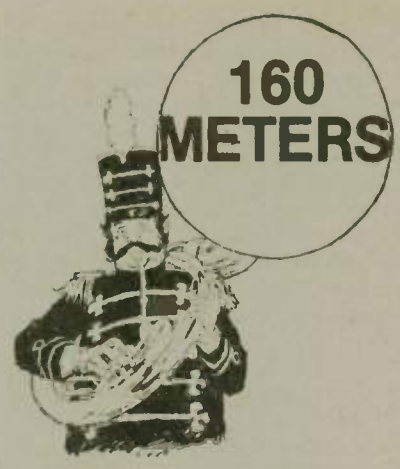
Why is it some clubs have built their own clubhouses?

Why is it that many clubs have a permanent meeting place in the local Red Cross building with a multi-purpose station set up, library of radio publications, lounging chairs, coffee pot, etc. and other clubs move from meeting place to meeting place?

Why is it that some clubs run a little drawing or door prizes at every meeting giving away books, parts, subscriptions, and other clubs just don't want to bother?

Do the answers to these questions tell why only about half of the active amateurs belong to any club at all?

(*please turn to page 35*)



Stu Perry, W1BB

FLASH!!! At 0620Z on 22 April, Herb Schoenbohm, KV4FZ, worked TI9DX on 160 to bring Herb to 100 countries (and DXCC) on that band. This is but the second DXCC on 160, W1BB being first. (Tnx to Al Segan, W2BP, for the news.)

W2BP has added nine new countries this season, bringing his 160 meter total to 74. He is also having a lot of fun running one watt output on SSB with his Drake T4XB. Best DX so far with his 160 QRPP is 900 miles.

John Mayes, W6BYB, who has DXed as ZM6, HR1, XE, HK1, D4, and W5, is now giving out VE1 from Prince Edward Island. John has a Drake R4C/T4XC and a 78' top loaded vertical and 36 radials.

Speaking of top loaded verticals, 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, supported with nylon guys) mast. Cost is $34.50. He's at 1414 East 9th St., Hutchinson, KS 67501. Sounds like a good way to put 160 in the hands of the DXpeditions or those, as our English friends say, small gardens.

Speaking of DXpeditions, Jim Dupont, W2DEO, was on the other end of the pile-ups when he operated 6Y5LA in Jamaica. You should have heard what he caused! Don Morris, W2BVN, and his pals put Cayman on.

Ilmo Antilla, OH2BO, now needs only Oceania for his "Worked All Continents". Gil Baker, W5QPX, is responsible for getting Bill Peters, YS1WPE, on 160 by taking him an antenna and xtals. Bill is a college teacher down there. By the way, Gil is working hard on a program to do with hosting the foreign amateurs when they visit these shores. If interested in a little international friendship drop Gil a note at 101 Rita Blanca Trail, Amarillo, TX 79108.

Martin Kumpost, OK1MCW, has worked the six continents with 29 countries. Joe Tasker, W7ABX, will make a sked with you if you need Nevada.

Country living has its advantages — Sutart Riddell, GM3YCB, has a 2500 foot antenna (you'd call that a long wire). His log shows VK, KV4, W, JA.

A "First Ever" may be around the corner. That is "Worked All States" on 160 by a DX station. Rolf Rasp, PY1RO, has 44 states — needs ND, SD, NM, WY, NV, and MT. Any other DX close?

Hats off to Robert, ZP9AY. He's covering all the bases, or to make a pun, both ends of the spectrum. He's on 160 and also working through OSCAR.

First Peru on 160 for many is Paul Wyse, OA8V.

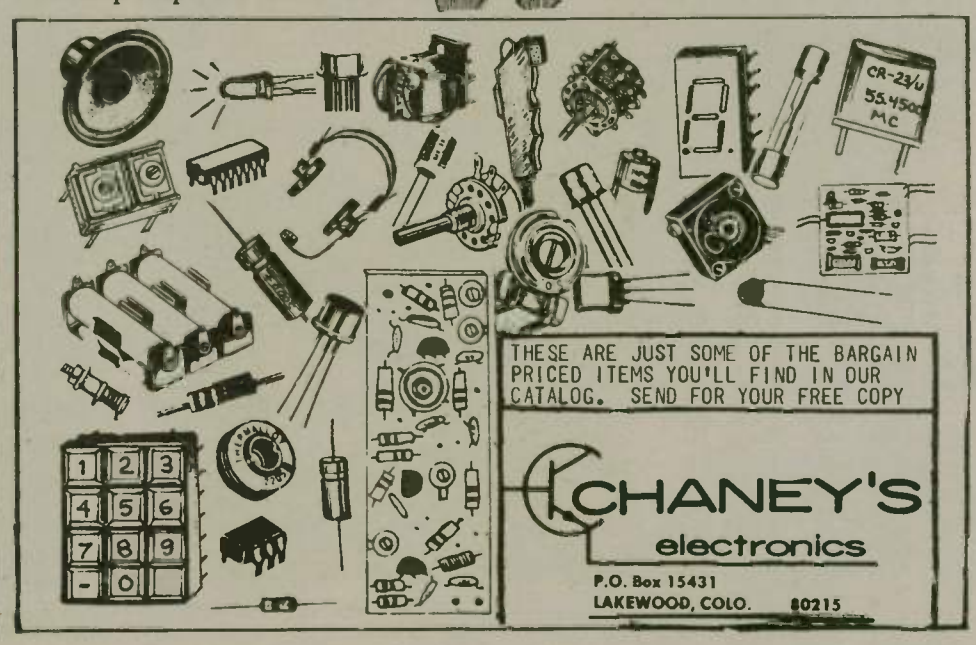
Where there's a will there's a way. Don McClenon, W3IN, has his version of the "invisible antenna" up. In a Beverage configuration it's a fine wire that goes across the road and many neighbors' yards. It works good enough to have netted him 23 DX contacts, including five Europeans that he says he couldn't hear on the vertical.

Should have mentioned this earlier. Al Segan, W2BP, had an article in a recent **Ham Radio** on converting Heath WA-14 to 160 at 500 watts.

You may notice policy here in **Worldradio** to always (when possible) list operator's name. One reason for that is while calls may change and people may move, the name is the same. Many, many letters go to the office in California telling that some old friends got back together because of seeing write-up in this newspaper. Considering the number of old timers on 160 it's a good policy. Seems us older guys cherish the friendships made over the years.

Say fellows, let's keep the "DX window" just that. DX stations can help by NOT working W/VE stations in the window. A little courtesy will go a long way.

Share your 160 news and views.



NOVICE

This column alternates between tips on getting your General class license and being on-the-air. This month is operating.

There has probably never been any one sentence set into type in amateur radio publications more often than, "Don't send long CQs." We hate to get up on that bandwagon again but it seems to be necessary. Pardon us for "preaching," but please believe the long CQ will get you less contacts. When someone on the other end hears 25 CQs followed by the call twice, and then another string of CQs start, he tunes away.

One can hardly go wrong with the old reliable 3 x 3 which is CQ CQ CQ DE WN6JKG WN6JKG WN6JKG CQ CQ CQ DE WN6JKG WN6JKG WN6JKG CQ CQ CQ DE WN6JKG WN6JKG WN6JKG K. Anyone sending more than that should be hung with old coax. In today's fast paced world possibly even more productive would be a three-two-one. Such as CQ CQ CQ DE WN6JKG WN6JKG WN6JKG CQ CQ DE WN6JKG WN6JKG CQ DE WN6JKG K. Everyone will wonder who that snappy operator is and want to talk to you.

Speaking about talking, that's what this Amateur Radio is really all about, talking to *someone* else. We've proved that a radio signal will go all over the world for over 50 years now so let's get down to talking to each other. Throw out a little leader to the other person, "What did you do today?" "What other hobbies do you have?" etc. Take notes on what he says and make comments on his comments. Have you ever passed through his area on vacation? Tell him so. Let's get some real conversation going and get away from these sterile QSOs and "here it comes, back to you, take it away, etc."

If you were sitting next to someone on a plane or train you would get into a conversation with a (up to then) total stranger, so let's do it on the amateur bands. After all, that's why we got a license in the first place, so we could talk to other people. And you're more likely to get a QSL card from someone who remembers you as a nice friendly guy.

Speaking of QSLs, you have a better chance to get that Wyoming or Delaware card if you send him a self-addressed stamped envelope. Make it easy on him. Remember, you want his card.

QSL cards are a lot of fun but there is one confirmation you do not want to get and that's one from your friendly FCC monitoring station (bad news). Lately more second harmonics from the Novice 40 meter band have been falling into the 20 meter phone band. This is usually caused by use of the multi-band antennas. The problem can usually be cleared up by not running the grid drive quite so hard. You know, if you back down from 75 watts to 60 watts no one on the other end will ever hear the difference. Your tube life will be longer and your chances of TVI less. Overdriving the grid is often the big culprit.

One of the advantages of belonging to the local radio club is that you can get some help from the older fellows. Ask someone to listen for your second harmonic. Make sure your rig is clean. Make some friends whom you can call upon for advice. If you get a little note from the FCC and they ask for an answer, you have someone to give you some assistance. Don't put off answering it. More amateurs lose their licenses for not answering official correspondence than any other reason.

Now the guys at the FCC are not big mean baddies whose goal in life is to persecute amateurs. Most of them are amateurs themselves. All they want is for things to be nice and clean and not interfere with other radio services.

If you get a notice from an "OO", that is, Official Observer, he is someone on your side. He is not trying to "play cop" or anything like that. He may be the best friend you have. It's his job to let you know something is wrong before the FCC does. (Better you should hear from him.) We used the word "job"; that's not exactly it. He doesn't get paid for it but rather it's a volunteer job. He has to meet certain qualifications before he can be appointed an "OO" by the ARRL. If you should hear from an "OO" write him and thank him. Then get one of your friends to help you correct the problem. The way to have friends is to be a friend. Get in your local radio club. Volunteer for a job or two and have some fun. Don't worry about people looking down at Novices. More than likely they started as Novices themselves. There are ARRL Directors and DXers on the Honor Roll who started as Novices. Why, even editors of Amateur Radio publications have started as Novices, hi hi.

Speaking of publications, since you have been so nice to read this all the way down to here we have something special for you. To encourage Novices, **Worldradio** has just started something new for you. Our usual subscription price is $5.00 per year, but for Novices you get one dollar off on your first one-year subscription, making it $4 a year. We hope you enjoy Amateur Radio and **Worldradio**.

Send in pictures of your station and news about what you have been doing.

MM

(*continued from page 28*)

(1) Reverse polarity protection — While such is provided in the case of the accessory D.C. power cord or in the deluxe mobile mount, these items are not included when one buys the rig. Either consider the D.C. cord as part of the transceiver or provide inherent protection through a diode shunt.

(2) Corrosion protection — The basic cabinet provides little in the way of water or dust proofing. Much of the circuitry would be exposed to spray and moisture in the advent of adverse seas coming aboard. The pc boards are also not protected with varnish or plastic coating. Such coatings made especially for protecting electrical circuits are available. I will print a list of such compounds in a future issue. Another possibility is to encase the entire radio in a water proof plastic case, opened only when operating the rig.

(3) Receiver incremental tuning — offset tuning, clarifier, whatever. The ability to tune in a station which is slightly off frequency is almost a standard requirement for amateur transceivers. With the predominant net and roundtable mode it is almost certain that some of the stations will not be lined up exactly. Even if the rigs are aligned perfectly, personal preference may shift the tuning high or low. The next thing you know there is a "leap frog" effect as you chase each other up the band. This modification is very easily accomplished using varicaps or varactor diodes across the VFO tank.

(4) CW — For the serious CW amateur the ATLAS definitely hurts. Under its present configuration one has to go through two rotary switch positions from transmit to receive. All this hassel with no side tone monitor would make CW a "now and then" operation. I suppose that you can send CW without feedback in an emergency, but on a long transmission your fist would probably get sloppy. A small IC tone oscillator with the transmit-receive function circuited through the PTT switch on the mike would do the trick.

As with any new rig, modifications will be incorporated as a function of consumer demand. Many of the amateur devised mods have later been assimilated into the basic circuitry by the manufacturer. In the meantime there is no transceiver made that will give the MM operator so much at any price as does the ATLAS.

I would appreciate any comments from ATLAS operators pro and con, especially in relation to MM installations.

Presently an ATLAS club is being organized to provide an idea exchange on modifications, trouble shooting tips, operating news, etc. While dues, officers and other formalities associated with a club have not been determined, the first "ATLAS Newsletter" explaining the club will soon be available. All interested amateurs should send a S.A.S.E. to: Bill Yost, WA6PIU, Acting Editor, Atlas Club, 9004 Harvest Way, Sacramento, CA 95826. Clint Call, service manager of ATLAS, has already endorsed the idea with his cooperation. Hopefully the word will get around to all those interested. 'Til then, 73.

TEACHER

Question: How important, to the future of Amateur Radio, is the licensing class instructor? Answer: Very, very important!

In the editorial in this month's issue we told that the number of new licensees in 1973 was 16,557, but in 1974, 1,823 less people joined up than in 1973. We had a drop in new licensees of 11 per cent. So, you might say, it's up to you to turn this around.

The purpose of this column is to be an exchange of ideas among instructors. Send in what worked, and what didn't work, so others can avoid your less than successful methods.

There was an article in CQ April 1975 by Bill Orr, W6SAI. He covered several points of interest to licensing class instructors. Highly recommended.

We've heard from licensing class instructors who are also teachers at the college or high school level during the day, so you might say they are real professionals even when being amateurs.

There is some discontent with the FCC mandate that the test cannot be seen by the instructor nor can the results be discussed with the student. This goes against the grain of educators who say, "A test is a learning experience. It can't be much of a learning experience if you never find out what it was you didn't know."

The Novice test prohibition against the instructor seeing a test also prevents him from knowing if what he is teaching is what will be covered in the test. If the teachers in subjects such as law, medicine, architecture, etc. are allowed to guide their students toward the successful completion of a test, it doesn't seem like too much to ask for in this field.

We would like to see some liaison between the FCC and instructors somewhat like between the FAA, flight instructors, and those who give the pilot tests. There should be some standards, something like Advanced class license or above and having a credential from the school system to teach in adult education (not hard to get, but some qualifications must be met). Let's hear your thoughts on this and we'll work on a formal proposal to the FCC. One shouldn't have to wait a month to find out if he flunked or passed.

It appears the tests will be worked over a bit. Thank goodness. From what we hear one is better off with a background in semantics than a background in radio when attempting today's tests.

To the conducting of the class, this schedule may work for you: 6:15 to 6:45, theory; 6:45 to 7:00, CW; 7:00 to 7:15, theory; 7:15 to 7:30, break; 7:30 to 8:00, theory; 8:00-8:15, CW; 8:15 to 8:30, theory; 8:30 to 8:45, break; 8:45 to 9:00 theory; 9:00 to 9:15, CW; 9:15 to 9:30, theory.

The CW is intentionally not placed right before the break so as not to give the idea CW is something one must endure before going to break. Also for the smokers in the class we don't want the CW going on when they are getting to the point they need their smoke.

We'd like to hear your ideas on scheduling. How do you cover the material? Most seem to use the ARRL License Manual, going over it question by question, then move through the Novice "Posi-Check," and finish up by going through the Ameco License Guide. Some instructors who have been around awhile have actually made practice exams which are distributed to students, taken, turned in and then graded.

Encourage questions. Tell your students, "If you have a question there are probably three others in the class wishing someone would ask it." Ask students questions. "Ralph, what's the second harmonic of 7125 kHz?", etc. It gives him some recognition when he answers it right.

Most importantly, we've got to stop this 11 per cent slide. One TV station in a major city gave free announcements to an amateur radio class. You will be surprised how inexpensive classified ads are in your local newspaper. "Talk to the world. Get your amateur radio license. Call 454-8308." Put that in the classifieds under "radios" for three days. Make it your donation to Amateur Radio.

And we won't ask you to do anything we wouldn't do ourselves (we've paid for the classified ads). In Bill Orr's CQ article he said, "Encourage Novices to join the mainstream of Amateur Radio. Provide reduced price 1-year subscriptions for Novices for the amateur journals." OK, Bill, we'll do that. Effective now, a Novice can get his first year of Worldradio at a dollar off, making it $4 a year. That puts it below our break-even (so I hope we get a few more advertisements) but we'll call it our donation to the future of Amateur Radio.

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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

ANTENNAS

This input comes from Jack Casebeer, K6QF: "I've been using the 90 degree horizontal "L" configuration for years. This gives omni-directional radiation. As far as I can judge, it performs about equal to a vertical on DX and has all the advantages of a horizontal for locals, which the vertical does not.

I used verticals for many years because of space limitations, usually with but one radial, and had good results. I'm still cramped for space and have been using the Mor-Gain antenna as the horizontal "L" and it works great. That antenna is the best I have ever used. It is short, but performs like a dipole on 80 and 40. On the higher frequencies they are dipoles. It is frequency sensitive on 80 and 40. I have mine set for the low end of 40 where I work a lot, but still get out on SSB on the high end of 75 with a fairly high SWR.

I just don't think SWR is as important as it is cooked up to be. The only reason it is noteworthy now days is because the store bought rigs have 50 to 100 ohm outputs which we have to match. Back in the old days we loaded 'em up with no, or little, regard to SWR (except for the perfectionists) and we got out well.

The good thing back then is that we used antenna tuners much more than we do now. That was probably because the Zepp was such a popular antenna. The 80 meter antenna would work on 160 and the other bands as well, but today we have gone to individual dipoles for each band with coax feed.

I tried the W6MHK (Bob Richards) Mighty Loop (**Worldradio**, December 1974). I had a 150 ft. loop hanging from the ceiling of my living room and my first DX on 40 meters was Kobus, ZS2JL, in Nahoon, South Africa. I believe that loop is probably one of the most efficient antennas there is.

I'm going to give the loop more trials. Would like to try them stacked and also both driven. Antennas are the important part of radio communications.

I wrote to W6MHK for more information than given in the article but he didn't answer my letter."

[Editor's comment: The antenna Jack is referring to is a horizontal loop. W6MHK runs it in his house, runs 300 watts and has worked DXCC. The dimensions are 15½ ft. by 9½ ft. closed loop with a capacitor in the center and a single wire feed to a tuner. The reason that Jack possibly didn't get an answer is "inventors are secretive," hi hi. We recently got a letter from W6MHK and he intends to market the antenna and all its secrets. The results are so unbelievable that he has amateurs come to his home to verify what he is working with it. You'll be seeing more about it here in **Worldradio**.]

Speaking of **Worldradio**, we recently added the Larsen 5/8 wave two-meter magnetic mount antenna to the company car. Top notch. Highly recommended.

Something else we highly recommend is the antenna noise bridge. Many (most?) amateurs are not familiar with this terrifically useful tool. An upcoming article in this column will describe the uses and benefits it gives you.

We're looking for your contribution to this column.

AIR *from page 28*

throw out some other purdy-good pickin' aviation SWL frequencies. Next month I am including some frequencies of historical interest such as those used by the Hindenberg and Amelia Earhart.

Speaking of frequencies ... I think it is about time that the amateurs/pilots organize on some frequency for the purpose of exchanging and disseminating local weather/airport conditions (actives, high traffic, available rentals) in addition to plain, old hanger flying via Amateur Radio. Probably for the purpose of local weather and airport conditions (e.g. op "A" just came down while op "B" is driving out to the aerodrome ignorant of the fact that the 90-knot cross-wind exceeds the limitations of op "B" 's Pitts Special.) a VHF frequency should be used. I would very much like to get your opinion on the matter and we'll try to come up with a solution by next month's column.

A nice note arrived from Bob Curtis, W1EXZ, in Colchester, VT. Bob, like myself, is an avid SWL and he thinks there are more amateur SWLs than we imagine. Bob is, like myself, nuts about the low and very low frequencies, but has trouble identifying the radio beacons. The U.S. Coast and Geodetic Survey, Washington, D.C., puts out a dandy chart with all the beacons and their identifiers listed. Also a plain 'ol Sectional helps too, sometimes. Appreciate your letter, Bob.

Not to produce a mass run to the phones, but most Flight Service Stations have a listing book of all beacons and some Specialists will be so kind as to furnish you with whatever information you need. The late hours are the best; in fact one night I spent about a half-hour talking Amateur Radio with one. Let me emphasize, though, these guys are busy a good portion of the time and other alternatives might be better to find out the localities of stations heard.

In coming months AERONAUTICAL MOBILE will feature a scorecard for the various portable amateur transceivers and how they stack up for use in an aircraft as well as explanations on the many facets of the ILS. Until that time, we greatly appreciate your letters and if you haven't written yet ... let's hear from you! Write to me at 376 Tedmark Court, Kankakee, Illinois 60901.

Continued from

ARRL

(*continued from page 10*)

The directors of the League have often been criticized since the board was first established over 50 years ago. Such criticism may be an indication of the success of the board as a democratic organization. While the board meetings are perhaps more formal, they differ little from the meetings of local radio clubs.

There are some members of the League who are critical of this fact, feeling that the board should be "much above" what one finds in the average amateur radio club. Such criticism is a "slap" at the caliber of amateur radio clubs and, in fact, members of the League. The board of directors in a democratic organization should and does represent what Amateur Radio is and not what some individuals think it should be. Any comments that the directors do not provide leadership is an indication that the board is following more closely the wishes of the members rather than that of some individuals or an elite minority.

We are fortunate that in our organization any eligible member can run for the office of director on his own abilities no matter what his station in life may be. In a democratic organization such as ours majority rules, and not those individuals who claim "secret" or mystic knowledge of what is best for others, for Amateur Radio and the League.

Do you know who your director is? Do you know in what section and division you live? Do you want to have more of a voice in your national amateur radio organization? You can't really take part if you are not a member of the League. You can't really take a part if you are a member but fail to vote in League elections. If you criticize the League when there is only one candidate, then nominate someone else or run yourself, or support the one candidate who is at least willing to devote time for the betterment and support of the ARRL.

If you are a member of the League and do not know who your director is, find out. Communicate with him if you have something you would like to say. You will be surprised to find out that he very much wants any input that you have. If you are not a member, the director in the division in which you live will still be glad to hear from you, but don't expect to have him give as much weight as that given to the amateurs who are members and pay regular dues. Only by joining the League can you really expect to have a real voice in the direction taken by the ARRL and Amateur Radio. We often feel that our one voice doesn't count for very much in a democracy, but the majority is made up of each individual doing his part for the whole.

Remember, the board must and will reflect the majority opinion. If you have an idea, you will have a better chance of putting your idea across to the board of directors if you gain support of many other members, such as the membership of a local club or group of clubs, nets or other amateur organizations.

The directors of the American Radio Relay League are radio amateurs like yourself. They are dedicated to the League and Amateur Radio as much or more than other amateurs. As a member of the League they are your voice in what happens to Amateur Radio.

If you take part in what happens within the League, you will exercise your voice.

continued next month

6W8

from page 14

Gambia, ZD3-land, but didn't run into any amateurs there.

In early August my calibration duties gave way to a new position as a weather observer aboard the R/V Gilliss of the University of Miami. Unfortunately, this terminated my portable 6W8 operation just when it seemed that solar activity was decreasing and DX propagation improving daily. However, it did not end all amateur activity as the radio officer on board the Gilliss was Will Mason, K4LA, from Miami. In the radio room was a Hallicrafters SR-150, a Swan Mark I linear, and a vertical at midship. My previous luck with verticals was soon forgotten as the DX performance of this one with an Atlantic Ocean radial system was truly remarkable. With little difficulty we were able to run numerous 5/9+ phone patches stateside for the crew and scientific members on board. Our position, 500 nautical miles off the coast of Sierra Leone, was ideal for monitoring the DX from both sides of the pond during radio silence periods. Unfortunately these periods made up about 95% of the time spent at sea as RFI was inevitable with the numerous meteorological and oceanographic instrumentation on board. Some of the goodies heard during September included CN8, CR4-6-7, DU, EA6-8, ET3, ST2, TR8, TU2, VP8, VQ9, ZD3-8, 5H3, 5N2, 5T5, 5X5, 5Z4, 9G1, 9J2, all on 15 and 20 meter phone. I found 40 and 80 either clobbered by BCI or QRN at these low latitudes (9.3° N).

By the time 27 September rolled around I had had my fill of African and sea life and anxiously awaited to touch down on good ole solid Florida soil once again. But surely the summer of '74 was the high point of my 11 year amateur career and probably will continue to be so for a long time to come.

Via Florida Skip

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The Mission Trail Net will be holding their 38th annual "ROUNDUP" on 14 and 15 June at the Bakersfield Inn, Bakersfield, CA. For information and/or reservations contact Norm Berg, WA6JFB, any night on MTN 3928 kHz at 1900 PDST.

WV School for the Blind

The West Virginia School for the Blind is looking for Novice crystal and Novice transmitters for their newly formed radio club.

Any contributions will be greatly appreciated. Twelve Novices are now in the group with several ready for General. Any transmitter not working properly will be accepted and put in working order.

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

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

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

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Wanted: An opportunity to quote your ham needs. 36 years a ham gear dealer. Collins, Drake, Ten-Tec, Swan, Kenwood, Tempo, Clegg, Regency, Icom, Hy-Gain, and all others. Also $25,000 inventory used gear. Request list. Chuck, W8UCG, Electronic Distributors, Inc., 1960 Peck St., Muskegon, MI 49441. (616) 726-3198, Telex-22-8411

Beginners RTTY Handbook — Brand new with everything you need to know to get on RTTY. Theory, application and simple equipment you can build. $2.50. Published by the RTTY JOURNAL, PO Box 837, Royal Oak, MI 48068

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

Free QSL samples — stamp appreciated. SAMCARDS, 48 Monte Carlo Dr., Pittsburgh, PA 15239

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Reconditioned Test Equipment. 50¢ for catalog. Walters, 2697 Nickel, San Pablo, CA 94806

Wanted for boy's club. Technical Books, Magazines, and courses. E. Ezekiel, 43/2 Shaviv, Herzlia 46-221, Israel.

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$$$Cash for IC's, Transistors, diodes, all electron tubes. Call collect or write Bob Sanett, 616 Holmby Ave., Los Angeles, CA 90024 (213) 279-1275

Picture QSL cards made from your photo of yourself, shack etc. 250 — $10.00, 1,000 — $19.50. Full color from slide $38.50. Samples free. Picture cards. Box 5471, Amarillo, TX 79107

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

Radio EXPO '75: The one you've heard about. September 6 & 7, Fair Grounds, Grays Lake, IL. Information: write EXPO, Box 1014, Arlington Hts., IL 60006.

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