The Worldradio News

Vol. IV, No. 9 March 1975 45¢

Fred Laun, W9SZR, decorated for valor

Recent visitors to the Goddard Radio Club, WA3NAN, and the Goddard Space Flight Center were Fred Laun, W9SZR, and Carlos Fenosi, LU5HDV. Carlos was one of the members of the Cordoba Radio Club who maintained an around the clock vigil with Fred at the hospital while he was recovering from injuries inflicted by Argentine guerillas last April. Standing in the picture l. to r. Hugh Turnbull, W3ABC, President of the Goddard Club, Ted Jaramillo, WA3FUM, who helped as interpreter, and W9SZR. Carlos, LU5HDV, sits in the operating position.

One of the world's best-known DX and contest operators, Fred Laun, W9SZR, has received the highest award of the U.S. Foreign Service.

Dr. Henry Kissinger, secretary of state, presented Laun with the Secretary's Award for Valor. The ceremonies were held at the U.S. State Department's Madison Room. Fifty persons attended, including Congressman William Steiger of Wisconsin. Laun is from Elkhart Lake, Wis.

Kissinger praised Laun for his courage and expressed the grateful appreciation of the State Department and the country for the example he had set.

Laun, who was then operating as LU5HFI, was kidnapped from his home in Unquillo, Argentina, on April 12, 1974. During the abduction Laun attempted to grab one of the terrorist's guns and was sot in the midsection. His transmitter and receiver were stolen.

A few days later an anonymous telephone call told where Laun had been released. He was found wrapped in blankets with a bottle of blood plasma rigged to his body. He was rushed to a clinic where his condition was described as "grave." He was then evacuated to the Gorgas Hospital in the Canal Zone.

Laun returned to his Elkhart Lake residence to recuperate and then returned to duties with the State Department in Washington, D.C.

Laun has been an amateur radio operator for 23 years. He has held

(*please turn to page 2*)

Big dish at SRI

Amateur moonbounce

By Louis Anciaux, WB6NMT

On 22 and 23 February, the 150 foot dish at SRI under the call of WA6LET again provided a large number of Earth-Moon-Earth QSOs.

Using this large antenna and equipment provided both by SRI and by other amateurs, Victor Frank, WB6KAP, and Bruce Clark, K6JYO, headed this fine effort. This was the third such EME operation to be conducted under the direction of these two amateurs from the 150' dish.

The score was 38 amateurs and 53 QSOs on 2 meters which equalled their previous test. Twenty-four of these were new stations, which really is the prime motivation behind using such a big dish for amateur work. By making up some of the difference in total system gain required, those amateurs who would not normally be able to work EME can do so.

The big dish was also used on the 432 MHz band for the first time. Due to equipment problems, only a dozen QSOs were obtained on this band. Also, only about two hours operating time was obtained out of some ten hours scheduled.

However, do not be thwarted by the many problems encountered; the WA6LET gang did manage two nice firsts. On 144, they accomplished the first US to Africa EME QSO. Bill Hosie, DE1DX, in Rhodesia was on the other end. Another ZE-lander ZE5FF, Peter Carey was also the first Calif-Africa 432 MHz EME QSO. Some might argue about the validity of using big non-private arrays for this type work. Perhaps we can look at it as radio amateurs, until such time as the same is accomplished by two completely privately owned systems. As Bruce was saying, it was mostly the amateur gear in use. The only gear that failed was that of SRI's.

This marathon operation was in some measure, plagued by Murphy's Raiders

(*please turn to page 2*)

Richard Baldwin, W1RU

Baldwin heads ARRL

Newington, CT — Richard L. Baldwin, W1RU, has been named General Manager of the American Radio Relay League, national amateur radio organization, it was announced by Harry J. Dannals, W2TUK, president. The ARRL Board of Directors chose Baldwin to succeed John Huntoon, W1RW, who retired after 35 years with the League and 14 as General Manager. Huntoon will continue to serve as Secretary, an unpaid post like those of all the officers and directors.

Baldwin joined the League in 1948 and has served as Managing Editor of QST, the monthly journal, and as Assistant General Manager since 1963. He has acted as liaison with governmental agencies both in the USA and abroad and has traveled extensively in a number of countries in behalf of international amateur radio.

Baldwin was licensed as a radio amateur in 1934 and presently holds the Amateur Extra license. He holds DXCC, WAS and WAC certificates, uses both phone and cw, and has qualified for the A-1 Operator certificate.

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Fred Laun, W9SZR

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the following calls: LU5HFI, HI8XAL, HS3AL, HS5ABD, XV4AL and was also an operator at XV5AC.

He worked with Robert Daniel, W6LCB, and Don Riebhoff, K7CBZ, to get Thailand removed from the FCC/ITU "banned list."

Laun also worked with Riebhoff and John Lunsford, W4EVG, to establish a legal XV5AC in Vietnam. He was also an active participant in the ARRL Intruder Watch program.

Laun helped establish the reciprocal operating agreement between the United States and the Dominican Republic. He always joined the local radio societies in the countries where he operated and participated in conventions and other radio activities.

It was reported that Argentine amateurs reacted very strongly to the news of his kidnapping by a guerilla organization, and it was their pressure that resulted in his release.

Laun, whose award plaque presented to him reads, "For courage and stamina during kidnapping by terrorists at great risk to your life," received his B.S. from the University of Wisconsin in journalism and political science.

For 20 years he maintained schedules with Jack Siringer, W8AJW, of North Olmstead, Ohio. It was Siringer who spearheaded the effort to have the world's radio operators send "get well" QSL cards to Laun when he was recuperating at Gorgas Hospital in the Canal Zone.

Laun had also suffered a severe blow to the head and the guerilla doctors had decided his gunshot wounds were too serious for them to treat.

On Wednesday, Feb. 26, 1975, Argentine guerillas kidnapped and then killed 62-year-old John Egan, the honorary U.S. consul in the city of Cordoba, which is where Laun was released.

Laun is a member of the Sheboygan County DX Association and has been the featured speaker at many DX conventions.

His next scheduled appearance is at the International DX Convention to be held in Fresno, CA, on April 19 and 20 at the Hilton Hotel. Laun will be the featured banquet speaker. (For information on the convention, contact W6MAV.)

Moonbounce

(*continued from page 1*)

just like any other VHF contest operation. (Field Days not withstanding either.) The 250' run of air heliax was suffering from excessive loss. Bruce estimates overall system performance was down at least 10 dB from previous tests due to coax loss. 'Those who worked us weren't working a big system, but were in fact doing some real moonbounce.'

At the start of the test of 22 Feb., the first key down on the 432 rig brought forth a shower of sparks as the rig went up like a roman candle. Some three hours later, they did manage to get the thing back on again. A quick QSO with Al Katz, K2UYH, and that was it. Apparently everyone had put 432 to bed by that time.

After only 11 QSOs at the beginning of the 23rds test, the amplifier did give up the ghost in total. Besides Al, who was also worked on SSB, and the Rhodesian, only the Netherlands was worked outside the USA. Two US stations were heard who were not QSOd.

One of the interesting things was again the lack of stations from the Pacific. Several countries do have active moonbouncers; yet, none of them were heard. Perhaps they were there, but not being heard?

After all the problems, the WA6LET gang still managed about the same number of QSOs on 2 meters as in the past tests. The two dozen new stations brought their states total to 25 and countries to 8. The eight countries are Germany, Sweden, USA, Rhodesia, Netherlands, Canada, France and Puerto Rico. On 432 they now can boast of 7 states and 3 countries.

One of the most humorous incidents was a chain yanker for Marshall Williams, WA5UNL. Marshall along with Jay Liebmann, W5ORH, had been striving to build a 320 element colinear array for EME use, and especially to be the first one to work WA6LET. Well, as will go things of this nature, the big array wasn't up expectations. Marshall's contention was the the baluns in use should be fine ... 'they have to work. It's the natural order of things.'

Work they didn't, as goes Murphy's order of things. After finally discovering the vast error of half the array was phased opposite, they did finally hear the moon. Marshall was all set to be the first with WA6LET. He was on early testing for echos, and waiting for the appointed time.

At the start of the test, Bruce was working the 2 meter position. He first worked John Yurek, K3PGP, then called Marshall. Bruce's report to Marshall was 339. Although WA6LET was receiving more like 539 and did get that report from Marshall. After the QSO ended, Bruce called QRZ, and was answered by Jay, W5OHR, using the same array. Bruce sent Jay a loud and clear 599 report. Needless to say, Marshall is still up in arms over that.

Besides Bruce and Vic at the big dish, a small army of amateurs, SRI employees and on-lookers were on hand. Especially indebted to Bob Foss of SRI who ran the dish and did yeoman duty during the procedings. Also, doing some considerable work were George Flammer, WB6RAL, Chuck Smallhouse, WA6MGZ, Jim Barnum, K6LJN, Steve Lund, WA8LLY/6, Bob Sutherland, WA6QCV, and Mike Staal, K6MYC. Many others were also involved, and deepest thanks is extended to all. One last note, Bob Stein, W6NBI, was noted operating for a time using the CW position. For all those who class themselves as anti-CW, Bob is the dean of anti-CW men. To see Bob work CW is enough to make one believe in Santa Claus again.

Murphy and his raiders seem to be getting the lion's share of the EME credits. Of the anticipated big dishes at Joddrell Bank, Arecibo and Homer Alaska; none were able to be on. The 1000 footer at Aricibo was down for maintenance; the 60 footer at Homer suffered loss of the operator when he was involved in an auto accident; and there is no word on why the 250 footer at Manchester, England was not on.

The 60 footer at La Posta was on for brief periods. Murphy ran his gang thru our shop as well. At W6RDF, we managed only two complete QSOs and heard only a few others. Our 432 gear also went up. But, the two main problems we faced were the tremendously high winds and a poor feed system.

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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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World is stage for long-distance drama

By Eunice Bernon, K8ONA

Amateur Radio operators all over the world were glued to their receivers recently, listening to the unexpected voices of two eager overseas operators, miles apart, trying to unite a husband and wife via amateur radio.

And the drama unfolded in the shack of Manny Iczkovitz, WB8OGB, East Cleveland, OH.

Iczkovitz heard U.S. serviceman Roger Sorinson speaking from his isolated Navy communications post (KP4AZJ) on Vieques Island, off Puerto Rico. Sorinson was searching for a radio operator "out there" with a loud, clear signal and a telephone patch.

"It's important," Sorenson said. "I must make contact with my wife at the naval base in Guam."

Iczkovitz promptly offered his services.

By telephone, Iczkovitz reached a Pacific overseas operator and patcher her, through his transmitter, to Sorenson for direct information.

Next, the operator in Guam advised Sorenson that neither his wife nor her mother could be reached.

Minutes passed as 14 294 MHz remained a clear frequency. No one intruded as Ickovitz patiently joined the distantly separated strangers.

Another try, as Sorenson told the Pacific overseas operator that his Mary "could be at work, at the Navy base."

Then the Guam operator said, "I'm sorry, but no one seems to know Mary Sorenson at the base. Over."

Manny Iczkovitz, WB8OGB

Sorenson's reply: "There must be an error, my wife is the secretary, and she edits the newspaper there."

A very long pause.

Finally, "Hello Roger, this is Mary. Over."

And from Vieques Island, "Oh Mary, I have two important messages for you. Can you hear me?"

"Yes, very well. Over."

"Mary, you will soon receive word that I've been injured. Please do not become alarmed. My leg wound is not really serious. Did you get that?"

"Ok. I won't worry then. Over."

"Mary, this is very important. I just received orders that my leave has been canceled. I cannot meet you in the States. Do not go to the States."

"OK, Roger, I heard that. Over."

At the conclusion of the hour-long drama, Iczkovitz was besieged by international callers.

"We were with you all the way."

"We hoped you'd bring them together."

"I've been licensed since 1911, but this was real Amateur Radio in action. It did my heart good to hear the happy ending."

Iczkovitz responded, "In my short eight months as an amateur I never expected this kind of experience. Tonight was like an exciting movie, with delays and setbacks. But the thrill of uniting that couple, so far apart, can never be surpassed. I'll never part with this Heathkit station."

Richard Baldwin, W1RU

(continued from page 1)

He was graduated from Bates College and holds a Masters from Boston University. He served for five years during WWII in the Navy and presently holds the rank of Commander, USNR. He has been active since 1966 in the Hartford Power Squadron and has served as Executive Officer. Baldwin and his wife, Phyllis, are the parents of a son and a daughter. They live in Simsbury, Conn.

Mendel lawsuit

In the June 1974 issue of this newspaper we reported on the $1 million against Leonard Mendel, W20VC.

The suit, filed by a group of his neighbors, had to do with interference to television and his tower (43 feet high). In person, and by mail, many amateurs have asked us what happened to that case. For the latest report we turn to a letter written to **Worldradio** just recently by Mendel.

After numerous postponements by the plaintiffs, we finally went to court on Feb. 13 and 14 before Judge George Beisheim, Special Term, part 3, New York State Supreme Court, White Plains, N.Y.

On Jan. 6, our attorney had appeared in court to once again get a trial date. It was set for Jan. 27. We went into court and the ARRL, represented by Monroe Mann, filed a brief to come into the case as an amicus curiae (friend of the court).

As the trial was about to start the question of jurisdiction was raised again by our attorney, Charles Spiegel, we had felt all along that the N.Y. State Supreme Court did not have jurisdiction over a federal licensee.

After hearing the appeal by our

(please turn to page 9)

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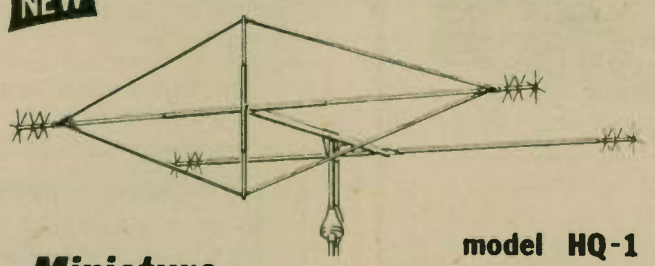

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Quadriplegic helps others through Amateur Radio

By Allan Chapman, W6MEO

Otho Jarman has been a quadriplegic for 16 years. He is also an active amateur radio operator who contributes to public service.

His is a remarkable story of courage, determination and the dedication of others.

At the age of 22, Otho broke his spine diving into a reservoir to save a child from drowning. Paralyzed below the neck, he has been living in an iron lung or rocking bed since 1958, completely unable to move except for his head.

In July 1970, the Barstow Amateur Radio Club, via the local newspaper, offered to help any handicapped person interested in Amateur Radio. Otho, with no previous experience, responded.

Studying, and with tutoring one hour each Sunday for seven weeks, otho passed his novice exam and began to communicate with the outside world using Morse code.

He enjoyed these contacts, and ten months later started to bone up for a higher grade license. After three weeks he passed the FCC "conditional" exam, which resulted in the assignment of call sign WB6KYM and a license equivalent to the General Class. He is now contemplating the test for an advanced license, a real undertaking even for a person with all faculties.

Ingenious System

How can a quadriplegic operate equipment, send and receive code, handle messages? With tremendous will power, using neck and facial muscles to operate an ingenious system of controls. And especially, the careful help of his wife, Jimmie, who arranges the controls on his pillow, keeps the log and dials the telephone for him.

The station and the controls Otho uses were built and installed by experts who work in electronic industries and government facilities nearby. Servo motor and relays are controlled by microswitches actuated by Otho's lips, tongue or cheeks. One radio set uses a voice-operated electronic key to send Morse code.

Repeater Stations

An old Motorola single-channel two-meter FM transceiver is set up on 146.16/146.76 MHz to work through repeater stations in Wrightwood and Barstow, selection of the repeater is done by tone burst actuated by Otho's chin or tongue. A rebuilt Swan 270 transceiver on 15 and 40 meters employs more complicated controls:

Frequency is tuned with a geared-down reversible motor controlled by Otho's cheek pressure; the 15-meter beam antenna is rotated from a three-position chin switch; his lips turn power on or off; and he forms Morse code characters with breath sounds which are translated into electrical impulses at speeds up to 35 words per minute (Otho's operating speed is 18 to 20).

All the special equipment is designed and built by the Barstow Amateur Radio Club, which installs and maintains all of his radio gear at their own expense.

One of Otho's regrets is that he cannot operate CW (Morse code) without help from someone else—his Swan transceiver does not have the break-in feature essential for rapid operation. He loves DX CW (long distance foreign contacts on Morse code), but is now limited mostly to voice.

Assistance To Others

Otho's expertise, intelligence and interest in people have resulted in his personally assisting others. He modestly defers much comment, but does admit to these incidents:

Ralph "Buddy" Boyd, WA5VTA, of Conroe, Tex., is an amateur radio operator, also paralyzed from a nearly identical accident. When Otho described his special key and controls, Buddy expressed a desire for one, which Otho passed to the radio club; the result was another key made up and shipped to Buddy.

Otho frequently gives directions and advice to travelers on Interstate 15 between Los Angeles and Las Vegas. Other amateurs who regularly travel the area look forward to the cheery "voice of the desert WB6KYM" as they drive through this 2000 square mile portion of the great Mojave southwest of Death Valley. When emergencies arise, he can summon help from the Highway Patrol, fire department, etc.

Others Interested

The Minnesota Crippled Children and Adults Society has a number of Amateur Radio members interested in Otho's key; he has relayed this request to the club.

Bob Hyde, WA2QIG, of Fulton, N.Y., is another handicapped amateur, who cannot speak. Otho spent a few hours talking to him in code and learned that Bob wanted to contact a certain doctor about a special medicine but had no information other than the names of the specialist and the drug. Wife Jimmie, who works at the Barstow hospital, was able to look up the doctor's address, which Otho relayed to Bob in New York, who then did contact the physician.

Otho comments; "I can't put into words how much this means to me or express my gratitude to those friends from the Barstow Amateur Radio Club. Before they came along I could only read to pass the time, and was just about dead inside and out.

New World

Now, I feel a whole new world has opened up for me—there is nothing like it. Talking to folks all over the country and abroad I find many handicapped people on the air. I know a policeman in Montana paralyzed from a gunshot wound; a man in Mercedes, Tex., who has almost no use of his hands but whose 14-year-old daughter assists him in maintaining his equipment.

"I hope each of my friends who have given me so much help and encouragement are recognized. In particular, there is Bill Haney, WA6CMZ, who designed and built my key and control systems. All have done so much that I can only say, 'Thanks' to: Mac MacDonald, W5UNF; Sam Nasario, WA6MUQ; Helmut Mecke; W6ZGC; Dennis Monro, WB6IOE; Wes Weems, W6PVR; Joe Buck, W6FRW; Joe Carpenter, WN6WYG; Roland Roy, WA6HWV and Roland Bibeau, W6GXC."

The club members respond with eloquent simplicity; "It is an honor to know Otho. His inspiring achievements remind us how lucky we are."

This true story is an outstanding example (several, really) of the finest traditions of amateur radio.

Through Otho Jarman, WB6KYM, his devoted wife, and the Barstow Amateur Radio Club, we catch a glimpse of what courage and determination can do.

•

Rig Ripped Off? Do This:

Dick Reese, WA8DBW, of Akron, OH has the following advice if you are the victim of a thief "ripping off" your mobile equipment:

1. Be able to conclusively prove ownership by serial number or some other means (this is where the small engraving tools really help).

2. Do not leave the place where you find the rig; advise the owner and request his cooperation to establish your ownership.

3. Should the store owner (or other person) refuse to turn the rig over to you, call the police immediately from that point, if possible, and request assistance while remaining with the rig.

Your positive proof should cause the police to take the radio, give the dealer (if such) a receipt and then determine the lawful owner.

Ron Leedy, WB8ONG, at Youngstown found his HR-212 on the shelves at a Youngstown radio store; he explained that it was his radio, established proof of ownership but left the store. That dealer got rid of the radio quickly and it is still missing; amateurs are warned to be careful and persistent when they get into such a situation.

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Amateur Radio and Sister City

A special station was set up outside the meeting hall at the Sister Cities convention as a demonstration of amateur radio in action. The equipment was borrowed from Barry Goldwater, K7UGA, who lives a few miles away. 730 QSOs were made in the U.S. and 18 foreign countries using the special prefix call WH7SCI. Left to right: William Eccles, K7MJC; Truman Moore, W7FCQ; Valantine Popof, K7AW; Eugene Hubbell, W7DI.

By John Troster, W6ISQ

At one time or another, all amateurs have tried to explain amateur radio to people who knew absolutely nothing about the subject.

At the Sister Cities International convention in Phoenix, AZ, Victor Clark, W4KFC, vice-president of ARRL had just that assignment – to explain to delegates what amateur radio was all bout.

In addition, however, he and Chuck Towns, K6LFH, president of Project OSCAR had the additional assignment of telling delegates how amateur radio could be of service to Sister Cities for promulgating their international people-to-people programs.

A booklet was prepared for distribution by Project OSCAR entitled "Sister Cities and Amateur Radio" to explain briefly to overseas readers what amateur radio was all about. Anyone interested in having this booklet or anyone interested in knowing more about how their community can be a part of Sister Cities International, write:
Project OSCAR
Attention Northern Calif. DX Club
Foothill College
Los Altos Hills, Ca. 94022

Vic Clark's remarks to the convention on amateur radio follow.

"Our purpose is to acquaint you with the amateur radio service. Perhaps I should say 'better acquaint,' as some of you may already know something about amateur radio.

As a matter of interest, may I ask how many of you know a licensed radio amateur, or have visited an amateur radio station? (Not including the demonstration station on the patio.) . . . We want more of you to learn about amateur radio and what it can do.

The Sister Cities program was developed to further international understanding and cooperation at the community level, through the exchange of ideas, people, projects, culture and education.

Amateur radio is, and has been for a great many years, engaged in a similar activity at the individual level.

Because amateur radio and the Sister Cities program share the goal of improving world understanding through increased contact and communication among people, it has been suggested that we might be able to develop some kind of mutually supportive relationship toward this end. We certainly think it is worth a try and we very much appreciate the opportunity that we have been given to discuss this with you.

The place to start, I believe, is to tell you more about amateur radio and what we feel to be its attributes.

Amateur radio, an international activity, is about 70 years old—approximately as old as radio itself, for the early experimenters were all amateurs.

Chuck Towns, K6LFH, addresses one of the workshops at the Sister Cities convention while Vic Clark, W4KFC, checks over his notes. Their purpose was to explain to delegates what amateur radio is all about and how to use it in their people-to-people program around the world.
(Photo Dick Oakland, SCI)

It has grown and flourished as an avocational pursuit and, today, there are more than half a million licensed radio amateurs in the world—about 255,000 of them in the United States. They range in age from 10 to 90 years and are to be found in all walks of life.

Amateur radio has no cultural, ideological, religious, economic or political barriers. Anyone wishing to enter the world of amateur radio need only possess the desire and the persistence required to qualify for his government license.

Now, note that I said "license." This is important. All radio amateurs are licensed by the government of the country in which they live. Their activities are governed by international regulations, and the frequencies (or wavelengths) on which they transmit are allocated by an international body functioning under the auspices of the United Nations.

In the United States, it is the Federal Communications Commission that serves as the radio regulatory agency. All amateurs must pass a test, including Morse code proficiency, electronics knowledge and government regulations.

Once qualified, the new amateur is assigned a set of call letters, and he (or she) may proceed to operate his own personal amateur radio station in his home or car (and often it is both) and to communicate with other amateurs around the world. There are, by the way, more than 12,000 women amateurs in the United States alone.

Amateur radio, we are proud to say, enjoys the reputation as the most orderly and disciplined of all the radio services administered by the Federal Communications Commission . . . probably because amateurs, having had to exert themselves somewhat to acquire their licenses, take pride in them and appreciate the importance of regulations which govern the use of the radio spectrum.

Now, exactly what is it radio amateurs do?

Amateur radio is a many-sided activity. It offers a wide variety of specialized pursuits. There is sufficient diversity to provide a lifetime of interest and with most amateurs it becomes a lifelong hobby.

Most amateurs talk to one another by radio, the range of their communications being limited only by their interest, skill, equipment and antennas.

Theirs is a party line that can include the whole world . . . or they may prefer making radio contacts around their own country, or perhaps limit them to their own local area, where they can talk to fellow amateurs with whom they may have direct personal contact, as well.

(please turn to page 31)

Towers, zoning and the law

by Ed Peck, K6AN

Ed Peck, K6AN

(Continued from last month's issue)

Among several of the things they were complaining about was the noise from overflight. Interesting enough, one of their complaints was TV interference because the airplanes flying over caused their pictures to change, etc.

Of course, in reading the case, that struck a very responsive chord in my mind. That case ended up in the Supreme Court; in fact, it was thrown out in the intermediate courts. They said there's no lawsuit at all.

And I said, "That's great," because everytime we get a case where they're complaining about TVI we have authority right here on a case that is so similar we can go to any court in California and say "The law of this state is . . . ."

We have had cases where the courts have held that one must, before they go to court on a TVI problem, exhaust their administrative remedies.

There are certain rights of appeal and hearings through the Federal Communications Commission. And, where there is an interplay of television interference or interference of one way or another, certain means of appeal in going through these channels.

The courts have directly felt in many cases, as they do in other types of cases, that one must exhaust those administrative remedies before going to court.

We actually had a case like this, this is back some time ago and I have a clipping out of the San Francisco papers. I'll read you a few words from it and then (this is the beginning of the case) I'll read you the final decision of the court in another paragraph. The title of this article is "Too Much Ham in Home, He Sues." It starts out, "Kurt Rochell, a San Francisco attorney, likes his radio, listening to it that is. George Davidson, a vice president of Standard Oil of California, likes his radio too, only he favors broadcasting.

Davidson is a ham radio operator. So when Rochell turns on his radio for an hour or two of soothing listening after a hard day at the office, does he get the pleasure he seeks? He does not, he complained yesterday to the Superior Court. Rochelle gets no melodic string music, he gets Davidson."

The article goes on to explain about the radio interference and some television interference. So attorney Rochelle went to court and sued Davidson, K6EI, who was vice president of Standard Oil. (Mr. Davidson has since passed away.) Well, there were some pretty big guns in this one as you can well imagine. Nobody was about to give up and we moved the court to dismiss the case because under the law, he was licensed in the public interest, convenience and necessity and also the Federal Communications Commission, that is the government of the United States, had usurped all the right to control interference between stations.

We went and we argued the case and during the argument of that case the judge said, "Gee, I think I ought to tell you fellows that one time when I was a kid I used to be one of these hams."

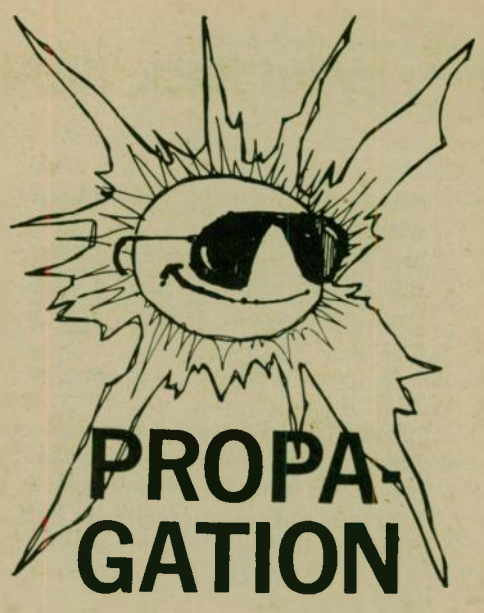
So we felt real smart about ourselves and we thought we were going to win it and we went home and we waited for the decision to come out. Two weeks later the judge dropped dead without writing an opinion.

So we had to go back and argue it in front of perhaps "enemy" hands this time. But truth and the people with the white hats finally prevailed and I have a copy of the decision of the courts and I'll read a little bit from it because I think it's interesting.

It says "The Congress of the United States has given exclusive jurisdiction in the matter of communications including radio and television broadcasting stations and amateur radio stations to the Federal Communications Commission. Section 12.152 of the Commission Rules and Regulations provides." (and it refers to the fact that they have control of an amateur radio station which caused interference, etc.) and the court goes on to say "it is clear from this section that the Federal Communications Commision has taken over exclusive jurisdiction and the plaintiff's remedy is to appear before this commission which under its rules and regulations has provided for complete hearings and appeals to the federal courts. In case satisfaction is not gained at their hearings.

"This court therefore is devoid of any jurisdiction to grant the plaintiff relief and (oh, I get a kick out of this) deep sympathy is entertained for his

(*please turn to page 15*)



April 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.

APRIL 1975

UT	AFRI	ASIA	EURO	SOAM	SPAC
01	14.1	20.8	9.3	23.7	26.5
02	10.7	21.0	8.8	20.6	26.6
03	9.4	20.8	8.6	17.1	26.6
04	11.4	19.5	9.0	14.4	25.2
05	10.1	17.3	9.9	13.4	21.0
06	8.9	15.4	11.7	13.5	17.6
07	8.6	14.5	10.3	13.5	15.9
08	7.8	14.1	9.8	10.1	15.5
09	7.3	13.5	10.0	10.9	15.5
10	7.3	12.7	9.7	13.1	14.9
11	8.1	11.7	10.0	12.2	14.6
12	9.7	11.1	11.2	12.6	13.3
13	11.5	11.2	13.2	14.9	12.2
14	12.9	12.6	15.2	17.5	13.2
15	13.7	13.9	16.7	18.8	15.3
16	14.0	13.6	17.1	19.2	14.9
17	14.1	13.5	17.1	20.2	13.5
18	14.4	13.7	17.4	22.4	12.3
19	15.0	14.7	17.1	24.8	13.3
20	15.4	16.9	16.1	26.3	16.8
21	15.5	19.5	14.6	27.0	20.7
22	14.5	21.1	12.7	27.2	23.4
23	15.2	21.2	11.3	26.1	24.9
24	16.0	20.9	10.4	24.5	25.9

•

Mendel

(continued from page 3)

attorney the judge told both attorneys to prepare briefs to show the why's and why not's of the case staying in the N.Y. State Supreme Court.

The briefs had to be in the hands of the judge by Feb. 3 and we would go back to court on Feb. 6 to get his ruling.

Robert Booth, general counsel of the ARRL, assisted our attorney in preparing the brief on removing the portion on interference from a state court.

On Feb. 6, we again went back to court and the judge put us over until Feb. 13 at which time he would give his ruling and the trial would begin.

The trial began on Feb. 13 at which time the judge ruled that the State of New York did not have jurisdiction over a federal licensee and any interference (alleged) and all parts of the case pertaining to alleged interference, alleged illnesses, bills for alleged TV repairs were not acceptable and would not be heard by the court.

At that time some of the Yorktown zoning which dealt with interference was declared unconstitutional.

The trial mainly consisted of alleged zoning violations and claims of public nuisance. The judge found there was not enough evidence to support a public nuisance. The five plaintiffs also claimed $10,000 each for devaluation of their property which could not be proven.

We also claim other parts of the local zoning code regarding towers is uncontitutional.

The judge has reserved decision and we will let you know as soon as we hear, which should take about a month. Our attorneys feel confident of the results.

The XYL and I would like to thank you, Worldradio News, and all the readers who have supported us not only financially but sent letters of encouragement and legal information which we passed along to our attorney. We are most grateful to one and all as every bit helped. Thank you again.

73

Lenny Mendel, W2OVC

Mendel, a retired New York City policeman, has legal fees of over $5,000 in this case. Will we help a fellow amateur?

•

ATTN: Dagny Taggart — what is your call now and what is your QTH. Sorry we lost contact. Hank Rearden c/0 **Worldradio**, 2509 Donner Way, Sacramento, CA 95818.

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Norm Brooks, K6FO

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YL-ISSB

By Sister Lauren, WAØRRJ

What is the YL-ISSB, Inc.?

So many have asked about the YL Single Side Band Communication System that I thought I would be appropriate to tell you about it at this time.

It is an independent, unaffiliated organization founded by a lovely and gracious lady, V. Mayree Tallman, K4ICA, of Miami, Florida. Her husband, Dr. Tallman, gave her the needed inspiration, fortitude and courage to launch this beautiful system on the high seas of Amateur Radio. As the name implies, it is a YL organization, but we are honored and pleased that OMs in great number desire membership and a preponderance of our members are OMs. At the present time membership numbers in the 9300s, many of which are DX

The YL SSB Communication System meets on 14,333 MHz at 1600 GMT time seven days a week for the primary purpose of handling emergency traffic.

When there are no emergencies for the system, members may contact each other for a very beautiful awards program. We are not a routine traffic system and everyone is welcome to participate with us whether member or not. On 20 meters, the system is rotated, opening in various call areas on different days of the week. The System Control will announce the area to be called, and any stations in that area are asked to check in only when your area is called, and any stations in that area are asked to check in only when your area is called, unless, of course, you have emergency traffic, and this is signified by a double break to the control station.

The System closes at approximately 2300 GMT time and then is turned into a less formal system at which time you may check in whenever he/she asks for check-ins.

There is also a 40 meter System in operation. We meet on Monday, Tuesday and Thursday night at 0030 GMT time on 7.280 MHz and on Saturday night at 0000 GMT. (To be rigorous, the GMT days are actually one day later in the week; i.e. Tuesday, Wednesday, Friday and Sunday) and on Wednesday night we meet on 3.926 MHz at 0100 GMT time (actually Thursday in GMT time). On 40 and 75 meters definite areas are not called, but checkins are taken in sequence.

It is not necessary for you to be a member to participate in the System, but for the awards, it is necessary for you to be a member. At the time of membership you are assigned a number which will be given to you on the air shortly after you have acquired membership. The dues are $4.00 per year.

If you should decide to become a member or wish further information, drop an SASE (business size envelope) to W2GLB, Phyllis Shank, or to Dr. Fred Holzapfel, WØUUE, in Golden Valley, MN. Dues are payable at the first of each year.

The contacts made on the system are made as briefly as possible due to the large number of check-ins, so only the necessary information is passed for the contact along with your sideband number. So, some day when you have nothing else to do, or are cleaning up the shack, drop by for a visit on the System, and I am sure you will be intrigued with it. I have been a member for over five years and find each time I meet someone new or greet old friends.

The awards program is really fantastic. There are many and beautiful awards given each year. Many of the awards require a real challenge on the part of the member, but well worth it when you see them. Rev. Jim McChesney is in charge of Award Applications.

I have just become Vice-President of this wonderful organization, and I consider it a real honor to be involved with such a wonderful group of amateur radio operators. Hope to hear you on the System . . .

•

QRPp-SSTV

By Jack Petree, WB4OVX

Becoming interested in QRPp operation, I purchased a Ten-Tec Argonaut in February 1974. Thinking about the QRPp challenge, WAS-QRPp on A3 was thought to be the first goal. Within a very short time, 25 states and 20 countries were worked and all gave good signal reports. This seemed to be too easy so some thought was given to increasing the challenge.

Having been on SSTV for 2½ years, the writer flirted with the question "Could QRPp and SSTV be successfully combined?" Doing a Rube Goldberg hookup to the Robot SSTV gear, a few test runs on a dummy load showed the Argonaut would handle the 100% duty cycle required for SSTV.

On March 13, 1974, I saw Ed Reynolds, W5UCO, coming in with a picture. Eddie was called on A3 and pictures were sent with a 5/8 signal report and all video frames readable. This settled the question as to the possibility of sending SSTV via QRPp. It could be done.

The next project was to wire the console so the Argonaut could be used for SSTV without the Rube Goldberg wiring system. This was done in short order.

Working SSTV on 5 watts (2 watts to the antenna), the states started being logged 2 way SSTV, many with a 5/9 reports and video as "closed circuit" and some with video just readable, but all states reading the video. Five months after the first SSTV transmission on QRPp, this operator has now logged 30 states 2 way SSTV, including the three west coast states and Hawaii. Don Muth, KH6HJF, recorded and re-transmitted the pictures which removed all doubt as to the video quality of the signal in Hawaii. Pictures were good.

In addition to the 30 states, Venezuela, Canda, Colombia and Bermuda have been logged 2 way SSTV-QRPp with "Closed Circuit" video reported by Willy Pettersen, YV1AQE, and L.C. Marsh, VE3PT. A recorded and re-transmitted signal from VE3PT was so "closed circuit" that I checked the monitor to be sure it was on "receive" as the pictures were so perfect. It looked as if the station camera was on the picture tube. HK3DKX said that he couldn't believe it to be possible to receive such a picture with only two watts to the antenna.

Having received the ARRL Award and the Dayton Amateur Radio Association plaque for WAS-SSTV, I can afford to be patient in working WAS-SSTV the second time around with the Argonaut barefoot.

Many of the receiving operators were highly skeptical of the reported five watts input, but as somebody said, "You can fool some of the people all of the time and all of the people some of the time, but you can't fool yourself any of the time." The writer has not fooled himself any of the time.

All states and DX contacts were made with five watts and were not first called with higher power.

In addition to the "full five watt power" contacts, some reduced power QRPp Slow Scan was tried with Constance Owens, WA1NXR. Starting with the powerful two watts out, power was reduced to one and then to ½ watt out and WA1NXR was still reading the video. Less power will be tried later.

QRPp-SSTV has taught me several lessons such as: "Calling CQ" is a wasted signal, but calling a station is much more effective.

Patience and a good antenna system are both musts.

WAS-SSTV-QRPp will take some time to do especially under present 20 meter band conditions.

QRPp on A3 is a real ball, but SSTV-QRPp is the greatest.

•

JA

Worldradio readers who are interested in awards will find that JARL (Japan Amateur Radio League) has some very nice certificates for whoever qualifies.

I think the most interesting award is the WAJA (Work All Japan Perfectures). This is similar to the Worked All States award in the USA. Below is a list of rules and how to apply for the awards.

If anyone needs any help, or has any questions, I'll be glad to answer them. Also, I have the new Japanese Call Book, so if anyone needs the QTH of any JA station, I'll be glad to look them up, SASE please.

Mas Takata, W6BJB

JARL Awards for Amateurs
Japan Amateur Radio League

The following awards are offered by JARL, praising the proficiency and achievement of any amateur in the world in his/her amateur life.

The applicant must submit QSLs fulfilling the conditions of the award applied, and a list of them showing the date and time (GMT) of QSOs, type of emission and frequency used, signal report, and location of the stations contacted.

All claims for these awards should be made by the submission of the QSLs, together with the list as mentioned above, and IRCs as listed below. If the list has been certified by the awards manager of an IARU member Society, confirmations (QSL cards) are not required to be sent.

Address for the application, JARL Awards Manager, P.O. Box 377, Tokyo Central, Japan.

Number of IRCs to be sent

* AJD (All Japan District): 10
* WAJA (Worked All Japan Prefectures):10
* HAJA (Heard All Japan Prefectures): 10
* JCC (Japan Century Cities): 10
* ADXA (Asian DX Award): 10
* HAC (Heard All Countries): 5

All contacts between amateurs must have been made on and after 30 July 1952. Any authorized amateur bands and type of emission may be used, but no cross-band contacts will be allowed. The applicant must have worked under their local regulations.

All contacts must be with "land station". Contacts with ships, anchored or otherwise, and aircraft do not count.

All stations must be contacted from the same call area, where such areas exist or from the same country in cases where there are no call areas.

Requirements

* AJD: QSO with all JA/JH/JR Call Areas, 1 through Ø.
* WAJA: QSO with JA/JH/JR Station in All (46) Japanese Prefectures shown in the list below.
* JCC: QSO with over 100 JA/JH/JR Stations in different Cities in Japan. JCC-200, -300, -400, -500, are also issued as separate Awards. A list of cities is available on your request. (3 IRCs needed).
* ADXA: This Award has been instituted to encourage the cooperation and friendship of the radio amateurs between Asia and the other continents of the world. The ADXA for confirmed contacts with 30 different Asian countries including JA/JH/JR (except KA) is available to licensed amateurs everywhere in the world.

List of WAJA/HAJA

Districts	Prefectures
JA1.	Tokyo, Kanagawa, Chiba, Saitama, Ibaraki, Tochigi, Gumma, Yamanashi
JA2.	Shizuoka, Gifu, Aichi, Mie
JA3.	Kyoto, Shiga, Nara, Osaka, Wakayama, Hyogo.
JA4.	Okayama, Shimane, Yamaguici, Tottori, Hiroshima
JA5.	Kagawa, Tokushima, Ehime, Kochi
JA6.	Fukuoka, Saga, Nagasaki, Kumamoto, Oita, Miyazaki, Kagoshima
JA7.	Aomori, Iwate, Akita, Yamagata, Miyagi, Fukushima
JA8.	Hokkaido
JA9	Toyama, Fukui, Ishikawa
JAØ	Niigata, Nagano

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EDITORIAL

Nothing has stirred more conversation (and controversy) in the ranks of amateur radio in recent years than the new FCC licensing proposals.

The response of some has been the attitude that anything that brings up the numbers is good. The other attitude is one we heard when one amateur sunk his head into his hands and moaned, "what will the repeaters sound like then? He was referring to what is the most controversial section of the new proposals, the "code-free" communicator license.

Most amateurs we have heard from feel the "behavior" of the communicator licensee will be less than we have been accustomed to on the amateur bands.

Ideally, of course, we would have had the influx into amateur radio of the well-motivated who would have gone for the grade of licenses requiring more self-discipline.

If there is a blame to be laid, it must, of course, fall on the shoulders of the body of amateurs themselves. Our efforts to recruit new amateurs into the ranks, our efforts to run licensing courses, have unfortunately been far too minimal.

The reason for this lethargy has deep and hidden roots. We shall embark now on what we see as the main fault of our avocation and which, as a result, causes the lack of human energy necessary to get the jobs we need done.

The other day someone wrote into the **Worldradio** SSTV editor, Bill DeWitt, W2DD, and said, "I hope your column doesn't get too **social.**

The definitions of the word social, in my dictionary, are most interesting: "1. pertaining to, devoted to, or characterized by friendly companionship or relations. 2. friendly or sociable, as persons or the disposition, spirit, etc. 4. living or disposed to live in companionship with others in a community, rather than in isolation. 6. of pertaining to the life, welfare and relations of human beings in a community."

It appears that "social" is something we might all aspire to.

The key words in the definition were "rather than in isolation."

Recently, one ARRL division director polled every member in his division. Of the replies he received, half said they had not attended a hamfest or radio club meeting in the past year.

The question then must be raised, do many prefer to build their gadgets or operate their stations "in isolation" rather than meeting their fellow amateur in face-to-face communication?

Most amateurs we have known are pretty friendly folks, and the fact we are able to communicate all over the world makes amateur radio look like it should be a "reach out" type of activity.

It seems for many, however, it is not. They prefer to "do their thing" away from the social aspects. But, when all is said and done, and one looks back, the things he will be grateful for is not the number of gadgets or grown-up toys, but rather the friends he has made.

One can not really fault the body of "non-social" amateurs because very little space has been devoted in the literature available to amateurs to the aspects of radio and/or personal communication. Most articles or books concentrate on the technical or scientific aspects of radio. We here at **Worldradio** have lent our emphasis more to "what you do with it once you get it to work."

In previous editorials we have called for amateurs to investigate the idea of stretching amateur radio out. Possibly we should "personalize" this avocation by adopting the structure and philosophies of the "service" or "fraternal" organizations.

Previously, we mentioned the methods and pursuits of such groups as the Shrine, Optimists, Sertoma, Kiwanis, Jaycees, Lions, etc.

(At SAROC Dave Flinn, W2CFP, chided us for not including Rotary. It was just an oversight. I'm well aware of the good works that Rotary does. Rotarians who might still have their May 1967 copy of **The Rotarian** will see, starting on page 18, an article I did on the clinic they sponsor in Saigon.)

Back to the point. Possibly if we slightly shifted the emphasis of amateur radio we would interest the kind of people who are attracted to "involved" activities.

There are many examples to choose from. Many labor unions work in the high schools and junior colleges in preparing the apprentices to their craft. The amateur radio equivalent could be local radio clubs "sponsoring" the high school radio club. Also, how about the alumni of our colleges banding together and putting the amateur radio station at their college "on the map."

Later, Dave, W2CFP (incidentally, he was the first lifetime subscriber to **Worldradio**) sent me some Rotary literature. In it you read things like this, "Rotary is thoughtfulness of and helpfulness to others. Rotary is the experience of men of different faiths, different opinions and different nationalities in fellowship, wherever they may be."

Wouldn't it be nice if such ideals as those were in the literature of amateur radio?

Incidentally, the full name of Rotary is Rotary International. How come there are few organizations in amateur radio with "international" in the name. If any group should be "plugged into" the idea of "international" it should certainly be the radio amateurs of the world.

The motto of Rotary is "Service Above Self." They go on to say "the establishment of a Rotary club links its community to a global network where similar Rotary clubs are operating to give expression to the desire to serve others." That "global network" almost sounds like amateur radio, doesn't it?

Looking through the Rotary booklet we see . . . "Rotary could be a potent force for the development of international goodwill . . . the advancement of international understanding . . . community-betterment activities . . . constructive

un...

Th... 451,617
Spanish la... goes to 42,611

With about twi... bers as there are an... programs are most amb... 6,000 educational awards ha... made to young men and wome... graduate and undergraduate stu... and technical training in countries other than their own.

Wouldn't it sound great if we could say amateur radio makes it possible for people from around the world to study electronices in the United States?

It wouldn't be bad if we could say the amateur radio body helped the study of electronics in the U.S. for our own people even. (Back to the idea of assisting the local high school and college amateur radio stations or even the electronics programs with grants, etc.)

Rotary sponsors a club called "Interact" which is for high school boys and girls. The purpose is to provide opportunity for young people to work together in a world fellowship dedicated to community service and international understanding. Unaugurated in 1962, this program now has over 70,000 members belonging to 3,200 clubs in 67 countries.

The question all this brings up, when we look at others is, are we so taken with the tools of communication that we forget about communication itself?

What do we do with this great resource? Play with it, or use it?

Looking through **The Lion** of January 1975 (the publication of Lions International) we see them referring to their organization as a "Global Village." Do we ever hear amateur radio talked about as such? And we have the world at our fingertips.

The Lion's highest honor presented to someone is "The Lions International Humanitarian Award." Is there anything like that in amateur radio?

The Lions have 27,500 clubs throughout the world. In the issue we saw their president, Johnny Balbo, spoke of recruiting public-spirited men into Lions. He talked about involvement, objectives, challenges, fellowship, enthusiasm, fresh ideas and being part of a great movement.

Could we apply those same terms to amateur radio? It seems the activities of many organizations are devoted to involvement, they are outward bound. Do they have something we should copy?

In Balbo's article he spoke of "a Lion's primary duty is to give of his time and energy for the betterment of his community."

If we spoke of the amateur radio

(*please turn to page 15*)

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2502 Jefferson Ave.
Tacomc, WN 98402

Communications hdqtrs
930 W. Washington St.
San Diego, CA 92103

Conley Radio Supply
405 North 24 St.
Billings, MT 59101

CW Electronic Sales Co.
1401 Blake St.
Denver, CO 80202

Electronic Radio Supply
2315 10th Ave. So.
Great Falls, MT 59401

Foster Radio Sales
P.O. Box 198
Tigeras, NM 87059

Gary Radio
8199 Clairemont Mesa
San Diego, CA 92111

GDS Electronics
Box 691 - Route No. 11
Spokane, WA 99208

Ham Radio Outlet
999 Howard
Burlingame, CA 94010

HCJ Electronics
8214 East Sprague
Spokane, WA 99206

Henry Radio Company
11240 West Olympic Blvd.
Los Angeles, CA 90064

Henry Radio Company
931 N. Euclid St.
Anaheim, CA 92801

Island Electronics
1111 McCully St.
Honolulu, HI 96814

Lafayette Radio Sales
1325 George Washington Wy
Richland, WN 99352

Lafayette Radio Sales
3863 Steilacoom Blvd. S.W.
Tacoma, WN 98499

LEC Electronics
P.O. Box 7515
Pueblo West, CO 81007

Masters Communications
7025 N. 58th Drive
Glendale, AZ 85031

McGrath Electronics
8515 Baseline Road
Lafayette, CO 80026

M-Tron
2811 Telegraph Road
Oakland, CA 94609

Oregon Ham Sales
409 W. First Avenue
Albany, OR 97321

Portland Radio Supply
1234 SW Stark
Portland, OR 97205

Progress Electronics
825 Commerce St.
Longview, WA 98632

Quement Electronics
P.O. Box 6000
San Jose, CA 95150

Ross Distributing Co.
112 So. First West
Preston, ID 83263

Rule Communications
P.O. Box 1054
Laramie, WY 82070

Selectronics
2204 Del Paso Blvd.
Sacramento, CA 95825

Sequoia Stereo
773 8th St.
Arcata, CA 95521

Sequoia Stereo
410 F. Street
Eureka, CA 95501

Sichel Equipment
245 E. Harris Ave.
So. San Francisco, CA 94080

Teletronics
4175 San Felipe Road
San Jose, CA 95121

United Electronics
328 Third Ave. East
Twin Falls, ID 83301

Utah FM Sales
1365 East 5360 South
Salt Lake City, UT 84117

Webster Radio
2602 E. Ashlan
Fresno, CA 93726

Westcom Engineering
P.O. Box 1020
Escondido, CA 92025

Vegas Radio
1108 So. 3rd
Las Vegas, NV 89101

SSTV

by Bill DeWitt, W2DD

Are all slow-scanners technicians, teachers, engineers, scientists, or Edisonian-inventor types?

No, it only seems that way when you listen to the jargon on 14.230 MHz. ICs, gates, clocks, wow! Some slow scanners, not all, have become very proficient in building solid state gear such as cameras, monitors, scan converters and the like. However, their vocations are as varied as those listed in a city directory. Here are some examples from some of my recent contacts and correspondence.

From Johannesburg, a letter from Peter Towers, ZS6PP, states that SSTV remains a slow grower. ZS-land has only about a dozen active slow scan stations. Peter deplores the growing tendency of some slow scanners to limit their contacts to a graphics exchange of reports. Apparently the urge to contact "nother new country" is eliminating picture exchanges that were more common in the earlier days of SSTV. Peter's shack is loaded with gear that he has built, including his monitor. He is an excellent photographer and pioneered in color slow scan work. Anyone making a "5-9 and good-bye" QSO with ZS6PP is missing a chance for a much more interesting contact. Is Peter an electronics specialist or a scientist? Sorry to disappoint you! He is an insurance executive, has his own agency.

During the past two or three years, yours truly has had the pleasure of many color slow scan exchanges with Jean Nicolas, F6BDJ, of Grenoble. Pictures of Jean and some of his fine equipment are shown on this page. Like ZS6PP and several other SSTVers, Jean is a skilled photographer. He has facilities for televising both reflection prints and slides and has made many successful inter-continental exchanges of color pictures by SSTV. F6BDJ and S. Zymanski, F3HO, co-authored an excellent article on color slow scan in the June 1974 issue of **REF Magazine** (Official organ of the Reseau des Emetteurs Francais). Is Jean an electronics researcher in a big technical laboratory? Sorry to disappoint you again! He owns a pharmacy in Grenoble.

Is our leading lady of SSTV, Connie Owens, SA1NXR, an electronics whiz bang? Well, that's another story. See page 18.

Direction

In my November column I described those involved in SSTV as Creative Designers, Creative Users, and just plain Users. (Early-on in SSTV there were only the Creative Designer-Builders!) But now that SSTV has been around a while, has standards, and is commercially available, it follows that those who want to become involved have a choice of kind and degree of involvement. However, where SSTV goes from here will still depend largely upon the creative capability of a few.

With this thought in mind, I am extending an invitation to anyone interested to express his thoughts as to what SSTV needs MOST. (I am not asking you HOW to do anything, just WHAT do you think is needed?) Putting it another way, if you were to be appointed "Czar" of SSTV and could call all the shots — in what areas would you call for improvement? In what order would you place the priorities for improved sharpness, fast scan display, keyboard graphics, extension of permitted operating frequencies, simultaneous voice and video transmission? (Let's assume present bandwidth restrictions.) Why not drop me a line and sound off on this subject? Your views will be duly reported in this space. Who knows, maybe somebody will come up with an idea on how to plan ahead!

Odds and ends

Keep an eye on Dave Ingram's SSTV Scene in **73 Magazine** for the winner of this year's International SSTV Contest. When Mike Ludkiewicz, W1DGJ confirms an SSTV contact, he eliminates any doubt about the mode of communication. See accompanying photo of his card. Pretty neat, Mike!

George Davis, VE3BBW, and Tom Atkins, VE3CDM, both of Willowdale, Ont. report that Fast Scan TV activity continues to grow in the Hamilton-Belleville area. The Ontario ATV Association and a group near Burlington are exploring the possibility of an ATV repeater, using the club call, VE3XTV. I'd like to suggest that somebody start NOW on making arrangements for repeater to repeater ATV communications once the Buffalo and Willowdale repeaters get into operation! Would this be a ham-TV first?

Please address letters to 2112 Turk Hill Road, Fairport, N.Y. 14450.

Speak your mind

The ARRL Board of Directors is making a careful study of Docket 20282, FCC's restructuring proposals. An important part of the process is a survey of all ARRL members, full and associate. Questionnaires will be mailed to members in March and should be promptly returned to headquarters for processing.

Jean Nicolas, F6BDJ

Station at F6BDJ

QSL card of W1DGJ

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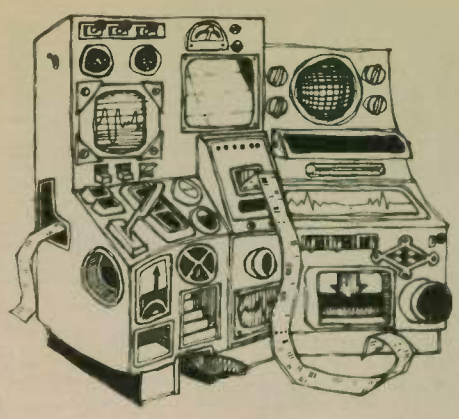


vhf-uhf MICROWAVE

Louis Anciaux, WB6NMT

My appreciation to all of you who made comments to me about our first column. Please keep the inputs to us coming.

A couple of the comments I received asked for info about two interesting areas. Ralph Perkins, WA6MNA, raised the question about antennae for the apartment dweller. Ralph also asked about 2 meter SSB/CW transceivers. Chuck Clark, WA9UQO, asked about a column on meteor scatter for the beginner.

Meteor scatter is a very viable method of increasing one's state total or section count for the VHF contest. This time of the year is nearly dead, for decent meteors are few and far between. The first of the many showers is not until late April. But from May through the end of the year, many showers do occur which give one a good chance at finding that 'Blue Whizzer' which will last for a minute or more.

I'll treat this subject in detail in the new few months. In the meantime, a very excellent treatment of this subject is found in the May '74 issue of **QST** by Walt Bain, W4LTU.

Antennae installations for the apartment dweller have always been a subject for considerable pain. To obtain an efficient antenna & at the same time keep it invisible has been the subject of numerous articles and much ingenuity by the poor fellow faced with this problem.

At HF, very thin wires may be used with some fair degree of success. At VHF, use of repeaters allows one to get by with a minimal system. However, for point-to-point work such as is required by SSB & CW, we are in for poor system performance at best.

Fortunately, at VHF one might be able to take advantage of the small size of the antennae and their nearly identical appearance to a TV antenna. Single multi-element Yagis look much like a single channel TV beam, and one can always tell the curious it is exactly that. If you can get the manager's permit for a TV antenna, you are home free.

An alternative plan of attack is to put the antenna up each time you want to use it, and remove it after use. This is a bit of a hassle, but does allow one to get on. The small size of a VHF antenna lends itself nicely to this operation. For the super serious and rich, a complete installation can be made which is remotely controlled and which will up the array from a hole in the ground and lower into same when QRT. This is probably more appropriate to the home owner in thos tracts in which no outside antennae are allowed.

For very local work, simple dipoles taped to a window or the roof eave can be used without raising too much suspicion. Even a small Yagi is usable inside, if you can keep it out of your wife's hair. If anyone can lend some more suggestions to this problem, please send them along.

The great profusion of 2 meter FM-only rigs is at last giving way to the rigs being used in great numbers in the land of the rising sun. The Echo II by KLM is among those now available. The Braun SE 600 all mode transceiver offers everything but the kitchen sink at a price to match.

The KLM Echo II covers only part of the band & is SSB/CW only. The Echo II would make a nice addition to the amateur already well euqipped on FM. For those looking for more power; there are linearized amplifiers available from KLM, and linear/FM combo amps from SCS (Specialty Communications Systems).

Yaseau, ICOM and Trio (Kenwood in the USA) also produce multimode rigs. Within the next 3 months, we can expect to hear a lot about these rigs.

In California several of the Echo II units have been on the air. Their performance indicates the level of activity on SSB will soon be reaching pre-FM levels. Many of those testing out one of the rigs are vertically polarized. Those who have turned their arrays over to horizontal have discovered a new world. As Jim Forgione, WB6JZC, in San Diego, indicated after he went horizontal using an Echo II; 'It's a whole new world. I didn't think there would be that much difference.' Jim also managed a QSO to Mike Staal, K6MYC, in San Martin. That is about 400 miles. Not bad for a 10 W rig by itself.

Turning to other areas, Es was in on 50 MHz at first of Feb. For 3 nites running, quite intense Es was noted by Bud Hanson, W6CDQ, 31 Jan.-2 Feb. He alerted Ray Jacobs, W6KD, & myself on the 2nd about all the TV channels in from parts East. Swinging the TV antenna to East, I was able only to make out Monterey, Mexico on Ch 3. The others up thru 6 were cross-moded badly. On 6 mtrs. Ron Kearney, K7QXA/6, here in San Diego had been able to work into Florida using just his 10 W HX-30. We listened to several stations from N. Calif. and Nevada working New Mexico, via backscatter. The low level of 50 MHz activity certainly indicated little of the very intense Es clouds. The MUF was above 100 MHz on the 2nd; but, probably did not reach 2 mtr.

Moonbounce is really making it big this month (Feb.) Besides the big WA6LET operation, several new stations made their first QSOs. In Fullerton, Gary Frey, W6KFD, who is better known from the Hughes ARC station K6QEH, put up his array at long last. Running an array of 8 KLM 16 el LPY-Yagis on 2, he got his echo back on the 26th of Jan. The next eve, after he generated some QRM for Bob Sutherland, W6PO, and Kyell Rasmusson, SM7BAE, he completed a QSO with Kyell. The next night he also worked Bob. When the local QRN is low, Gary has been able to obtain decent SSB echos. The array is quite similar to that lost by Kelly Scheimberg, W8KPY, a couple months ago in one of those wild Ohio storms. This array is featured in some of the KLM ads for their antennae. The main boom is some 50 ft. of aluminum tower sections.

Although this size array might be a bit large for some of us (half of it would be a quite usable array), Lucky Whitaker, W7CNK, is now sporting one of these same 8-16s. I know it is working, as we heard Lucky quite well at W6RDF on Feb. 23.

Big arrays seem to grow even a big bigger in Oklahoma. (I always thought Texas was the land of the big things). Jay Liebmann, W5ORH, and Marshall Williams, WA5UNL, have just completed a 320 el colinear array. Now that array ought to make some noise! Anyone care to try for 640 els? All these arrays incidently, are for the 2 mtr band.

Jerry Ford, WA7KYZ, who gave Dick Hart, KØMQS, state #47 on 2, is back on with 8 KLM 14 els and an 8877, after suffering from storm damage. Jerry is another of the growing number of hams who fall under Sam Harris' adage . . . 'if it doesn't fall down, it wasn't big enuff.'

Sam, as W1FZJ, made renown EME headlines as W1BU with a true Rube Goldbert set-up. Sam is in Puerto Rico as KP4DJN presently. He was sporting a 100 ft dish several years ago. Last word was he was both building a home and a 300 ft dish. At the rate ol' Fuzzy Face is going, he'll have his own 1000 footer before long. He does work at the present big monster at Arecibo when not building.

On 29 Jan. Dave Olean, K1WHS, QSOd Dan Berge, WA7BJU, on 2 via EME for what must be the first 2 mtr work between Maine and Oregon. That QSO brought Dave up to 31 states in 10 call areas. The Feb issue of **QST** has a couple of photos of Dave's station and array.

The bulk of Feb. has seen rather poor tropo condx across the Pacific from the West Coast. Very few of the Oscar 7 orbits over the 2200 Nautical mile range were observed. Orbit 1154 on 16 Feb did show up to
comment on
WA6UAP, sayi
in via tropo indicat
those attempting t
to know exactly the
satellite.

extension. A
Petersen,
I was

A great circle map centered
own QTH will not yield the
distances for someone else's QTH t
satellite unless some care is used in t
determination. For example, from San Francisco to Hawaii, one might be tempted to think San Diego is closer. Even though San Diego is further south, it is also further east. Consequently, San Diego is nearly 200 miles farther away from Hawaii than is San Francisco.

Next month I'll outline the Oscar 7 tropo extension path experiments again. Recent correspondence from Perry Klein, K3JTE, of AMSAT indicated AMSAT's blessing on these experiments. We will be signing with indications of tests for tropo paths during the Wed GMT passes.

Along these same lines, Lee Wical, KH6BZF, who is now sporting some good ears on 2 meters; asks for those within easy reach of Hawaii via Oscar 7 to refrain from calling him on each pass.

Likewise, for those passes which are passing East of 110 deg W Long, let the fellows to the East try. In particular, for those passes prior 0400 GMT, only areas 1-4 should be trying.

If the KH6s are heard on the early passes, they will be probably using tropo duct assist. The next few months are the most likely for this mode from the Hawian end.

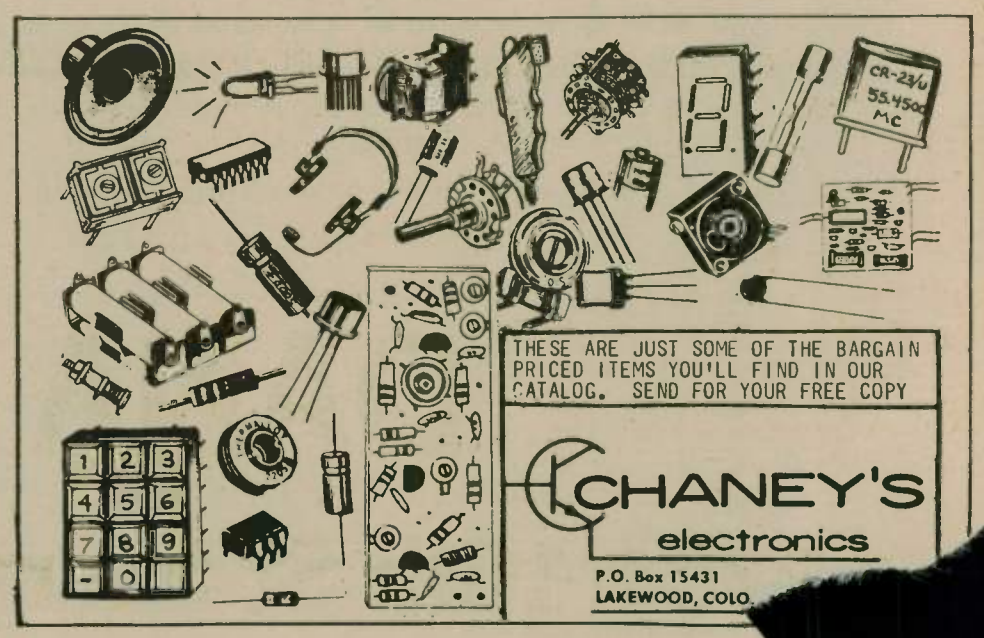
The West Coast VHF/UHF Conference, this year celebrating its 20th annual get-together, is shaping up nicely. Running from 2 thru 4 May at the Sheraton Inn on Harbor Island here in San Diego, we are expecting good attendance. Last year we hit 165 attendees, and wouldn't be too surprised to see it pass 200 this year. I have been getting some considerable inputs from fellows from the East who indicate they will be here.

For many, will be the first chance to meet that VHFer you have talked to for so many years. Next month I'll run a brief resume of the program.

Please keep the info coming to 4519 Narragansett Ave., San Diego, Ca. 92107. 73.

•

Lee deForest Radio Club — meets every third Wednesday of the month at the Provident Savings & Loan Association Community Room, 1690 East Florida St., Hemet, CA 92343.



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AMSAT-OSCAR 6 and 7 Orbital Data Calendar

In cooperation with AMSAT, Skip Reymann, W6PAJ, has published an AMSAT-OSCAR orbital data calendar containing all orbits for 1975 for both AMSAT-OSCAR 6 and AMSAT-OSCAR 7. Designed so that it may be hung on the wall, the calendar includes information on the operating schedules and frequencies for both spacecraft, and also the telemetry decoding equations. Also included is step-by-step information on how to determine times of passage of the satellites.

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

Skip Reymann, W6PAJ
P.O. Box 374
San Dimas, CA 91773 U.S.A.

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

Moonbounce

(continued from page 2)

The 60' dish is primarily used for mapping the solar surface at 15 & 35 GHz. The dish is configured in a Cassegrainian mode which requires a very substantial feeder gain. We attempted to suspend a crossed pair of dipoles in front of the sub-reflector. This met with only marginal success. The 22nd tests indicated we were obtaining about 19 dB gain, or about 6 dB less than what we might expect from a dish that size. On 432, the gain appeared to be not much more than that.

The winds were of such magnitude as to preclude venturing into the dish to make modifications. The 125 foot run of heliax we had installed from the dish to the base of the pedestal had to be carefully managed around the base while in operation. Late Saturday, the winds did subside sufficiently to allow us to install another feed system near the main feed point. This feed worked much less than the original. So, back up the dish to change it over to the old feed system.

By this time, the 2nd day's test was nearly over. Besides the blow out of the 432 system, we also suffered two failures of the 2 meter amplifier. Fortunately, it was only the bias network which blew from arc-overs in the high voltage supply. Finally getting back on during the last hour of the test, we managed to work the WA6LET gang, and Don Falle, VE2DFO.

Strangely, during the 22nd period we obtain reasonably good 2 meter echos from ourselves. The WA6LET gang couldn't hear us quite well, yet we did not get our own echos. Obviously, we were suffering from Faraday rotational problems. Just another one of Murphy's tricks. Our feed was supposed to be circularly polarized!

Besides the two mentioned, we also heard Jerry Ford, WA7KYZ, Lucky Whitaker, W7CNK, Paul Wolfe, K8III, Gary Frey, K6QEH, and a few others we weren't sure of. Jerry Gastil, K6DYD, was in S9 direct, and we could hear his echo nicely when he paused between letters and words.

Our group at W6RDF was small, but must thank Bill Moision, WA6APC, for all his time running this dish and the many tasks he performed. Jerry Petrizze, WA6VLF, and Ron Kearny, K7QXA/6, were the mainstays for all the work involved. Ed Munn, W6OYJ, assisted in the initial gear moving and the 22nd tests. Bob Rose, K6GKU, who has overall responsibility for the La Posta site was directly responsible for our being able to use the site.

The WA6LET operation may go again in about six months or so. Victor Frank, WB6KAP, is contemplating several alternatives. such as only 432 MHz; a dual band operation on 220 & 1296; or perhaps some combo. Bruce is moving back to Los Angeles area, and will be on the K6QEH station again. If the next EME tests of this nature are still at the lower freqs; we probably will not put W6RDF on the air from La Posta again. Next time I'll do what originally did intend to do. Stay home and operate my own 28' dish as WB6NMT.

160 meters

(continued from page 36)

NOTE: There will not be a spring issue of my 160 Bulletin because of the trip.

Jerry Trousdale, K4ZIN, is now in Sierra Leone as 9L1JT. He's been making DX QSOs with an FT-101 and a dipole at 50 feet. He says he got on 160 just to help a few who asked him to, but now enjoys the challenge. Isn't that what 160 is really all about—the challenge?

Look for Jerry at 14.295 MHz, 2130Z, when he skeds his QSL manager, visitors are welcome. Make a sked for 160. And, Jerry is looking for Nebraska on 80.

A frustrating experience is hearing others working some DX and you can't hear the DX station. How come? It could be that the skip just isn't "in" at your QTH while it is at the other. Experience shows that distances as little as 30 miles can make a lot of difference. There could be a higher noise level at your QTH. Such could spread a noise blanket over the DX. Possibly you have a poorer receiving antenna or a less efficient receiver. Another factor is that your own ears may not be a sensitive. Your ability/experience to pick weak signals out of the noise may not be developed yet.

A real help would be, after a station has worked a DX station, he should announce what frequency he heard him on.

Rio de Janiero must have one of the happiest amateurs around. Rolf, PY1RO, says he "sits on his porch, feet on the rail, looks up at the mountains and drinks a bottle of champagne for every new country worked. Ready for this? From Oct. 18 to Nov. 24 he worked FR8AA, 6YGIA, DJ6QT/CT3, FYØBHI, ST2AY and 9L1JT. Whoopee! At the rate he's going he may sing that old song "Hundred bottles on the wall."

Bill Cecil, GM3KHH, says QSL cards are hard to get out of W/K land.

Les Radnay, W1PL, worked Peter Lowth, ZE7JX, and only needs KH6 for WAC. Les tells of working KH6RS (a club station) but never getting a QSL card.

Roger, ST2AY, has put Sudan on the 160 map for the first time. He's worked many JA's and made WAC. He's there saying he's "trying to give more stations the thrill of a new country." During the CQ CW Test some pirate/joker was working Ws with Roger's call. We well expect, though, that when such pirates go "down there" the temperature will be one degree warmer for every phony QSO they made.

A reminder—with the **Worldradio** fast production time 160 news items will be put out quite quickly. So send your material to the address given above.

Sister City

(*continued from page 7*)

Some radio amateurs use the key and make their contacts by Morse code. Most use the microphone. But there are many radio amateurs who use radioteletype and even television. Still others specialize in exploring the characteristics of little-used frequencies, using what are normally regarded as short-distance wavelengths to go great distances by bouncing their signals off the moon, or against the auroral curtains at the poles.

There is at this moment circling the earth a radio satellite—the sixth in a series—built entirely by radio amateurs. It is in what is called a polar orbit and passes directly overhead in every part of the world at least twice a day.

More than 2,000 amateurs have sent signals through this satellite during the past year to establish contact with their fellow amateurs . . and some have talked to dozens of foreign countries, relaying their signals through this orbiting repeater hundreds of miles above the earth.

But amateur radio is more than experimentation and personal communications—it is a public service activity, too, and most everyone knows that amateurs are usually first to flash word of a disaster or emergency in which normal or everyday communications facilities are disrupted.

Amateur radio is an activity involving people of all ages who are busy learning and exchanging ideas with one another and with more experienced amateurs. Participation by young people can lead them directly into an interesting and profitable vocation . . . and, incidentally, I should mention that there is no generation gap in amateur radio.

Amateur radio is encouraged by the government of nearly every country in the world. One notable exception mainland China and we hear persistant rumors of new possibilities there. We hope so, for we believe that amateur radio far outstrips ping-pong as a means for bringing people together.

Most national governments have long recognized the practical advantages of a vigorous and active amateur radio fraternity. In fact, it has often been observed that the character and vigor of its amateur radio service tells far more about a country and the nature of its society than all of the shortwave propaganda broadcasts ever made.

Nearly every country has an amateur radio organization. In the United States it is the American Radio Relay League that serves as spokesman for more than 100,000 of its members.

The radio societies of the world work together as members of the International Amateur Radio Union to strengthen and improve amateur radio operating practices and frequency resources.

Chuck Towns, K6LFH, shows the amateur station at the Sister Cities convention to Simon Getonga, Deputy Town Clerk of Nairobi, Kenya who was in this country seeking more information on the Sister City program. These two gentlemen met last summer in Nairobi when Chuck was there to introduce city officials to the Sister Cities.

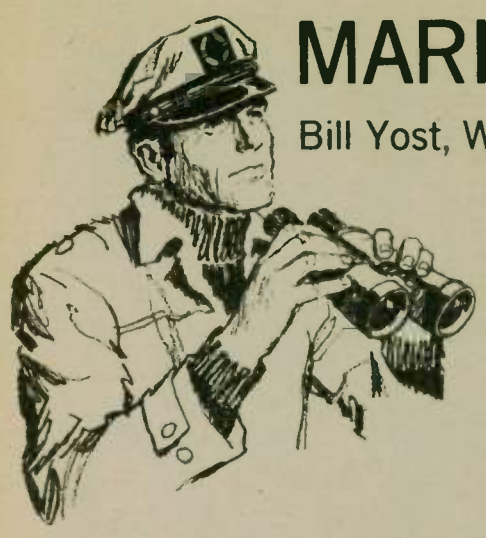
I hope that his brief introduction to amateur radio conveys to you some idea of its universal appeal and international character.

We are concerned, as are the supporters of the Sister Cities program, with strengthening the ties of friendship and understanding among the peoples of the world.

This common objective has suggested the possibility that there are ways in which the two activities can work together, and it is this possibility we want to explore further with you during the course of this conference.

MARITIME MOBILE

Bill Yost, WA6PIU



An international amateur

calling frequency?

The concept of a calling frequency whereby stations monitor for emergencies or initial contacts is certainly not new to commercial services.

In the marine bands, 500 KHz, 2182 KHz and more recently 156.8 MHz have been so allocated.

While the amateur bands may have the most extensive monitoring potential, most of the effort is scattered throughout the band in the form of drawn-out ragchews. Such a system is certainly not unique to MM, however, the advantages to the shipboard station is most relevant. In this regard I relay a proposal submitted by Chuck Clark, WB4OBZ.

For a national CW traffic frequency

Background

Traffic handling has had a long and venerable history in American amateur radio, as the very title of its organization indicates, the American Radio Relay League.

It began by random relays, but experience soon showed that more effective operation could be had from organized systems. A system of trunk lines was developed that covered the continent during the 1920s and '30s, state-wide and region-wide nets came into being, independent traffic-handling organizations like the Forty Traffic System to provide a well-established set of routes to some outlets beyond, and the independents have set up similar systems of nets, though not so extensive or so tightly organized.

Periodically there surfaces a suggestion that a calling or emergency frequency be established, so that one could put traffic into the system at any time instead of only when nets are in session. Most such attempts have not been successful (2).

Those that have succeeded have used phone, not CW, mainly the ARS (WCARS-ECARS-MWARS) have failed, despite the fact that a highly successful CW system has been functioning on 500 kHz since before World War I, of course there wasn't much CW back then, it was spark that was king.

Reasons for Failure of CW Calling Frequencies

There seem to be several reasons why the use of CW calling frequencies has been disappointing in amateur practice.

1. Nobody but the FCC has authority to restrict the use of a frequency in the amateur bands; if amateurs want to start a ragchew on a calling frequency, they can be asked to move, but no one can make them move. They have as much right to be there as anybody else, as nobody has the exclusive use of any amateur frequency, not even W1AW. The only cases where they could be in formal violation of FCC rule or law would be if the FCC had declared a communications emergency and had restricted the use of the frequency, or if there were communications concerning a ship or aircraft in distress, to which the Communications Act gives absolute priority.

2. Not many amateurs find sitting listening to the noise on a dead frequency very thrilling, so it is hard to keep interest of monitoring stations alive. The operators on 500 KHz are paid to listen to that channel, so it's a different situation and 500 KHz is by no means a dead band—listen to it some time!

3. Amateurs did not use the calling frequencies, possibly because they never heard anyone else use them.

4. If general activity exists on the calling frequency, calls could be covered up by QRM. CW has never developed the continual round-table type of QSO that is common on the phone bands, with no net control, with stations dropping in and out at will, and going on for hours on a spot frequency, that any station with emergency traffic could break into at any time.

5. Much gear is not calibrated accurately enough, or at least has not retained its calibration, to spot within say 100 Hz of a desired frequency, and so could easily be outside the passband of a sharp receiver—and how be sure that the receiver itself is precisely spotted?

Advantages of a Calling Frequency

If experience has shown calling frequencies to be impracticable in the amateur CW bands, why does the suggestion continue to come up? Because a calling frequency offers many potential advantages:

1. Traffic could be put into the system at any time. Those who cannot meet organized nets are severely handicapped at present. For example, seamen could use amateur radio most profitably to maintain contact with their families, but often cannot operate when nets are in session. Ben Lane, W7FNE, tells of the difficulties of securing permission from the skipper, then of picking times when his operating will not cause QRM either to the ship station or to the BC receivers of the crew (3).

Tom Moulton, WN1SRS, from whom the writer has received shipboard-originated traffic, has a similar master than would say a wiper or mess boy, but his novice class license limits him to working the few novice nets on 40 meters, and they always seem to meet when he can't operate (an immediate deduction from Murphy's Law). The regulations prohibit the use of 80 meters on shipboard outside the 12-mile limit. Then there are night workers and such to consider.

2. At present, traffic handling is concentrated in the evening hours and sometimes practically takes over the general-class of this traffic could be handled at other times, more of the band would be released for casual amateur activity.

3. Emergencies can happen at any time and having at least a skeleton traffic force in operation could greatly expedite handling emergency traffic until additional stations or nets could be activated if needed.

4. Traffic speed would not be limited by the once-a-day cycle of the NTS. It could reach its destination area and a reply be returned under good conditions within an hour or two at any time of day. This is not needed for most traffic, but it could be vital for emergency traffic, so why not set up for that kind of performance and deliver it routinely, so it will be available in an emergency?

5. Operating all day, the system would not be overloaded as easily as the NTS with its successive limited-time cycles. True, the NTS sets up extra cycles and adds operators when available to meet peak loads, but the region net has to get its work finished in time for the area net and sometimes can't do it without having stations hold their traffic.

The Proposal

One approach to setting up a CW calling frequency has not been tried, and could well succeed. Instead of the monitoring stations just sitting there, just listening, let them put out calls. Take a page from the book of the commercial stations. Listen to a coastal station on a general-coverage receiver: when not sending traffic it uses its V-wheel to hold the channel, sending something like VVV VVV VVV QRA DE WAX WAX WAX ANS 6 8 or 12 MHz K.

Adapting this to our amateur situation, monitoring stations could put out a call every minute, on the minute. Six stations should be able to cover the U.S. and Canada adequately on 40 M. Located in the Northeast, North Central, Northwest, Southeast, South Central, Southwest part of the country, each would put out its call once every six minutes and list its traffic on hand every half hour according to a schedule that would have one of them calling each minute and one giving a traffic list every five minutes. The schedule could be somewhat as follows:

Minutes after hour		Area
01	31	NE
01	32	SC
03	33	NW
04	34	SE
05	35	NC QTC
06	36	SW
07	37	NE
08	38	SC
09	39	NW
10	40	SE QTC

Minutes after hour		Area
11	41	NC
12	42	SW
13	43	NE
14	44	SC
15	45	NW QTC
16	46	SE
17	47	NC
18	48	SW
19	49	NE
20	50	SC QTC

Minutes after hour		Area
21	51	NW
22	52	SE
23	53	NC
24	54	SW
25	55	NE QTC
26	56	SC
27	57	NW
28	58	SE
29	59	NC
30	60	SW OTC

The on-the-minute call could go something like this: CQ TFC CQ TFC DE WB4OBZ K. Would take maybe 10 or 15 seconds, would leave 45 seconds or so for reply and QSY before the next station would be due to transmit its call. And it has been arranged in the table above that the next station would be in a geographically remote location, and so would be less likely to cause interference to replies.

The traffic list could be something like this: CQ CQ CQ DE WB4OBZ WB4OBZ QTC VA NC GA QSP?? CQ TFC DE WB4OBZ K. Any station answering would be asked to move off the frequency to pass the traffic, much as in present net practice. If traffic is heavy, additional stations could stand by to replace the monitoring station or could themselves go off to handle the traffic if requested by the monitoring station, who would thus act as a net control, much as coastal stations do in the Maritime Mobile Service.

If the monitoring station has no replacement and should be off frequency when a call is due, the call could simply be omitted. But with six minutes between calls, there could be time to pass a message or two and still return to the calling frequency before the next call is due.

Calling could be done manually, or mechanical or electronic keyers could be used to put out the calls at the proper times without need for attention by the operator. Some monitoring stations might do like the commercials and have split earphones so as to be able to listen to both the calling and their working frequencies at the same time, and a switch to put the transmitter on the calling frequency without need for careful tuning. Room for much amateur ingenuity here!

Choice of Frequency

1. The 40-meter band would seem to be best for nation-wide service during the day and is available for maritime mobile service in region 2.

2. The frequency should be in the novice band, to permit novices to take part.

3. Activity seems to be greatest toward the middle of the band, hence this frequency should be toward the edge.

4. But it should also be far enough inside to reduce the risk of inexperienced novices inadvertently operating outside the band.

5. It should be at the low end of the band, as it would permit higher-class licensees to move easily out of the novice band to pass traffic.

In the light of these considerations, the frequency 7.102 MHz is suggested for the calling frequency. Using it would provide one additional service to the novices; it would give them a good band-edge marker.

Extension to U.S. Possessions and Latin America

The Nicaragua earthquake and the Honduras floods, to name only two recent disasters, underline the importance of extending any traffic system as sidely as FCC Regulations and International Law permit.

Continued next month

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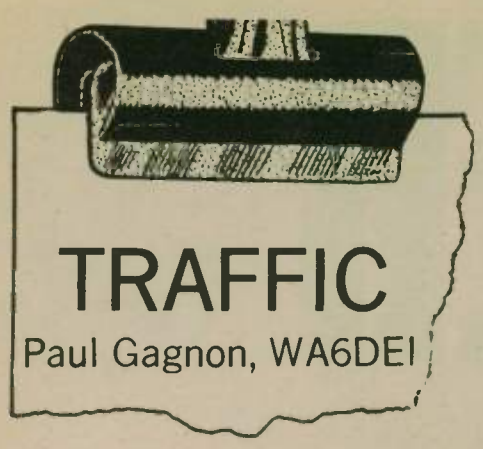

TRAFFIC

Paul Gagnon, WA6DEI

This month we are pleased to present a guest article. Bob Schmidt, W5GHP, makes some very good points in this article entitled "Stagnation."

Bob is currently the section communications manager for the Louisiana Section. He previously held the position of route manager for Louisiana and has considerable experience in traffic handling and public service communications as evidenced in a recent publication entitled "State of Louisiana Amateur Radio Emergency Communications Facilities—Hurricane Carmen, September 1974," which was written for public agencies. This article, and many of Bob's other articles, appeared in the Louisiana Amateur Net Bulletin.

STAGNATION
BY R. P. Schmidt, W5GHP

Recently, while attending meetings concerning amateur radio traffic work, and while listening to conversations on the traffic nets, it has come to mind that we in the National Traffic System, may be stagnating.

Now I must admit that the idea of change purely for the sake of change has never attracted me, but the lack of change due to stagnation is equally repulsive. Where do we stand in 1975? Is the system progressing and improving? Are new ideas brought forward and examined by all concerned and, if an improvement, at least tried on a limited scale?

To the above questions, I would have to give a qualified no as an answer. One point that I have always thought the ARRL has missed on, regardless of the comments concerning percentages of active traffic handlers, is the amount of publicity given by the league to the National Traffic System in their publications.

If you analyze the amount of public service work we as amateurs do perform, you will note that, by far, the public thinks of us as being most helpful during times of rather large geographical disasters, where communication becomes a vital necessity. The small local disaster, where communications can be used to assist in a highway accident, etc., do not, in this writer's opinion, really prove anything to the public about amateur radio readiness to assist during disasters. Using the above analysis, we can come to the conclusion that the ARRL could do more, publicity-wise, in promoting the NTS than it is presently doing.

The first objection normally raised when this is mentioned, is that the majority of amateurs aren't interested in traffic work, or the NTS, or even know what it is, for that matter. Why? Possibly if the space devoted to what some amateurs call "trivia," in the page and a half currently used for public service reports, were used to detail the activity of the National Traffic System, we would have a few more amateurs active in the system, or at least a broader general knowledge of the system.

Going back to our original premise, what main point does the ARRL, as the representative of Amateur Radio, have to present to any government or political body as proof that we are ready and able to perform in the public service? Surely not the fact that we do have electronic equipment, and can talk to other amateurs? Surely not the fact that we do have two meter repeaters operating, and can do anything that a good taxi cab company can do?

What do we have? I think the best things we have is a system . . . and the trained people to operate this . . . . Again we come to the previous point. Should all of our publications only present that which the majority want, or should we have some so called educational information included that would help us to achieve good public service, when needed. Have we stagnated in this respect? One only has to listen to the activities of our brother amateurs on 20 meters during international disasters like Nicaragua and, even more recently, Honduras, to realize that we have stagnated to the point that we cannot perform reliably as communicators. Is this because we have bypassed the system?

At a recent traffic meeting, discussing emergency communication, one well-placed amateur, in all seriousness, said that we amateurs should all have barometers, so we could pass on information so the weather bureau people plot the position of storms, etc. . If this is not enough, I recently heard of an amateur who had a weather teletype in his shack and was passing along weather information into disaster areas. Since when have we as amateur radio operators become weathermen? Why do things like this show up?

To my way of thinking, this really shows up these amateurs as not really amateur radio operators, but grown children playing with toys. As long as we are known publicly for these incidents, we will never progress.

If we don't want to stagnate, we must not only improve our image, but we must improve our system. I am not talking about major changes, but rather minor ones. We are amateurs and are supposed to be communicators, but very few of us are trained in procedures and formal traffic handling.

We are so broad in our interests that the idea of the moment seems to always prevail. I don't think we have to have every amateur trained as a traffic handler but, by the same token, when an emergency does arise, we must have a definite plan and the trained operators must take over the operation. In foreign disaster work, this becomes very important.

In two-meter work, we, for some reason, have very few trained personnel. Why? Again we get back to publicity. We must have more. We must improve the system. We have to get over the idea, that when an emergency strikes, all amateurs are automaticly imbued with the necessary knowledge to be excellent Net Control Stations and traffic handlers.

The idea of just passing information by word of mouth is ludicrous. This must be pointed out again and again. Of course, we need all the help we can get, and, when an emergency does strike, we admire and desire all amateurs who can help. But conversely, most amateurs must realize that the trained operators must of necessity become the NCS stations and lead the way. No one in his right mind would try to act as a doctor in an emergency, unless he was a doctor, why then will the average amateur become the expert in everything from traffic handling, weather, airplane schedules, etc., when an emergency strikes.

What can be done? We must improve the system, especially where foreign disasters are concerned. We must modernize and update it constantly. We can't become complacent. We must not stagnate. We here in Louisiana are but a small part of the overall system, but, like all systems, the failure of one small part can cause the whole program to fall down. This writer does not wish to become a fanatic on one subject, but only wishes we could pass the word to all amateurs as to the proper role we can play in any emergency.

We are communicators and our job is to pass traffic, i.e. messages, from the source to the receiver.

QNC:

1) Do you have an article related to amateurs and traffic handling or public service that others would be interested in reading? Do you have an idea you would like to get opinions on? If so, pass them along and we will print what we can.

2) Bill Smith, W7GHT, has been assigned as assistant director of the Pacific Area Transcontinental Corps by TCC Pac Director Bill Wageman, K5MAT. After a short time in the job W7GHT sent along an interesting observation. "I have found that the caliber of the TCC PAC personnel, without exception, is absolutely the highest. All of your have assumed the responsibility of your schedules with zealous pride; and your display of loyalty unsurpasses any group or other organization."

3) Do you know what the TCC is and does???

4) A new traffic count method has been introduced and discussed by George Hart, WINJM, in February **QST**. Effective July 1, origination points count only for messages originated for genuine third parties, not the operator of the station. The former "Relayed" category is replaced by the new "sent" category. A point is given for every message sent, whether originated at the station or received from another station. The effect is to make BPL by the 500 points a little easier. A genuinely originated message results in two points rather than one as in the past.

However, BPL by the 100 originations and deliveries method will be harder because a message from the operator of the originating station no longer will count a point for origination.

(*please turn to page 39*)

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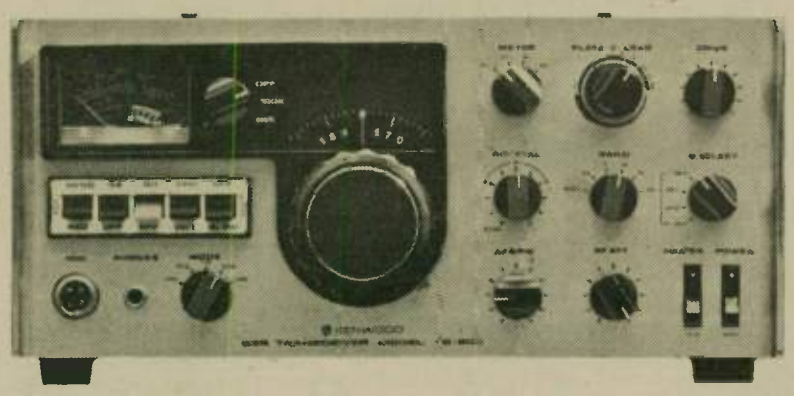

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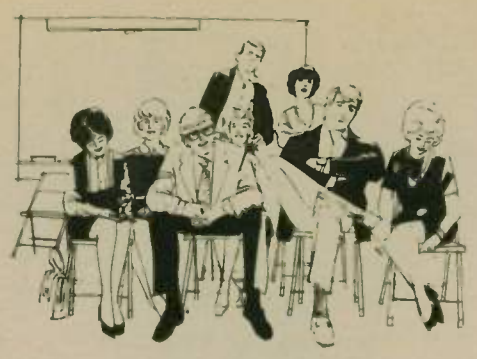

CLUBS

This monthly column is for radio clubs to exchange ideas on their activities.

The North Hills Radio Club (Fair Oaks, CA) does something very interesting. At every meeting there is a roundtable. Each member gets up, in turn, and tells what he did in the past month. It may pertain to DX worked, projects built, new gear, etc. But, also it may include vacations, what happened on the job or whatever.

What this does is two-fold. It gets some of the more shy people to get up and express themselves (every club has a certain number who never say much) and it lets others hear about some things in which common interests may be found. The members of the North Hills Radio Club really know each other and they have a good time at their meetings.

The friendly atmosphere does a lot for a club and the North Hills Club is one that is growing. Every year they also have a dinner at a nice restaurant with families invited and attending.

Recently they invited the Pacific Division directer "Doc" Gmelin, W6ZRJ, to the speaker. Gmelin and vice-director Al Gaetano, W6VZT, appeared and told what happened at the recent ARRL board of directors meeting.

They also went into the new licensing docket, explained it the way they saw it and asked for opinions from those gathered.

Clubs looking for speakers for their programs might look to their director, vice-director, section communications manager or section emergency coordinator to come and make a presentation.

One club activity is to gather up test equipment for the use of members. There's lots of things an amateur could use but he is reluctant to buy them because they are infrequently used. If everyone pitched in but a little, a quality grid dip meter could be purchased. a nice tool is the Heath scope that allows you to check for linear operation. The proper settings could be made and then it could be returned to the club. Another item is the antenna noise bridge. That's a great item. Once you use it and see what it does for you, you'll wonder how you did without it. After it is used, it could be loaned to another member.

Another club activity could be something that is quite popular in Europe. All the members bring their outgoing QSL cards to the meeting. There all the cards are merged together, in alphabetical order, and sent to the outgoing QSL bureaus. That would give the individual members quite a postage savings.

If your club ever sits around and says "There's nothing to do" compare that with something from **The FM Scanner**, the bulletin of the Miami Valley (OH) FM Association, we reprint part of it:

"And why are our services constantly being sought by Red Cross, Cancer Society, M.S. Society, Civil Defense, schools, government agencies, etc. And why has the Dayton Chamber of Commerce contacted us for our services for this year, and especially for 1976 and the many activities in connection with the Bi-Centennial year? Because we have radio equipment? Yes, but more because we have trained, dedicated, intelligent, capable people to organize and provide the service in an unselfish professional way! Amateur Radio and the Miami Valley FM Association have proven themselves to be truly "by the people and for the people." Aren't you glad you're an FMer and a MVFMAer?! No wonder the FCC wants to encourage more amateur activity!"

That sounds pretty "Gung-Ho," doesn't it? What if every club had that kind of spirit? Usually people who are "proud" of their organization are the ones who worked hard to bring it to its present state.

What some clubs do is have a dinner together before the meeting, or after the meeting retire to a coffee shop for more fellowship and social rapport.

Probably the biggest annual event for most active clubs is Field Day. Anyone who hasn't been on Field Day has missed something. What we'd like to see is rather than giving the "section" as the exchange, give the name of the club. That way the sharp clubs would gain national recognition as well as the pride in announcing the name of their club on the air.

One popular activity is the annual flea market with club members bringing their excess items. The club gets 10 per cent of the sales for the treasury.

Speaking of the treasury, allow us to mention here the generous commission offered radio clubs on **Worldradio** subscriptions that go through a club. Contact us for details. You will also be pleased with our program regarding subscriptions used as prizes.

OK, now its your turn. Tell us, so we can tell the world, of the special activites your club does. Share your ideas with the other clubs. And, by the way, we would like to be on the mailing list of your club bulletin. Address it to Clubs, **Worldradio**, 2509 Donner Way, Sacramento, CA 95818. Thanks.

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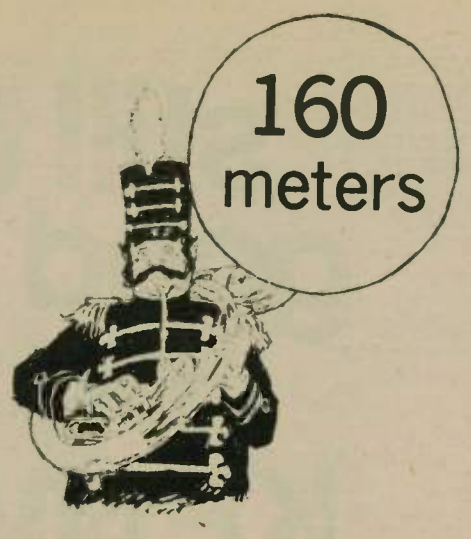
ARRL Southwestern Division 1975 Convention

Ventura, Calif., 24-26 October '75. Headquartered at Holiday Inn at Ventura on the Beach. Recreational vehicles will have spaces available near the hotel. Contests, ladies program, technical talks, exhibits and more.



Stu Perry, W1BB

First, I'd like to comment on the article, "How to DX on top band," by Martin Laine, OH2BH, in the January of **Worldradio**. Marti, one of the world's top DXers on the HF bands, presented a 160 viewpoint which was "well done." I hope you saw it. It was thought-provoking and amusing.

This has really been a wonderful season, quite exceeding our "cautious optimism" of last October. This one may go down in the history books as a real "Jim Dandy."

Many "Worked all Continents" have been made, distance record broken, new countries added and DXpeditions flourished.

This may be due to bigger and better antennas, ground systems and receiving techniques used.

Rolling up new DXCC countries has been fast and furiour. Herb Schoenbohm is now up to 95 from KV4FZ. And, he worked a WAC in just over eight hours.

And here's a "first ever." Earl Cunningham, W5RTQ, and Paul Bailey, VS6DO, got together at 1315Z for the first-ever W5 to Hong Kong 160 QSO.

The contest scores have been excellent with record breaking scores. Speaking of breaking records . . . Ronald Sekkel, PY2FUS, broke my distance record by 12 miles. His now stands at 11,621 miles.

Bill Peters, YS1WPE, has activated El Salvador on 160. Jiro Manka, JA1MCU, worked 160 miles from Bangladesh and Maldive Islands. Rolf Rasp, PY1RO, says he has "worked more countries than you can shake a stick at."

JAs have been working into Europe and W5 land. At 2055Z, J. Grimmer, VE1MX, heard M. Bazley, VK6HD, for 45 minutes at 559! Helena Kertesz, YV5CKR, in Caracas, says she there is "Mucho DX all over the place."

Speaking of places, I will not be in my usual place for awhile. Marguerite and I are going to visit my son in KH6 and take a South Pacific cruise to VR2, ZK1, VK and ZL. We'll be gone until the middle of summer and all mail will just stack up and be unopened. If you have any hot 160 news, send it to **Worldradio** (2509 Donner Way, Sacramento, CA 95818) and they will print it in this column.

(please turn to page 30)

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NOVICE

First, when you decide to go take your general, why not take the advanced test just as well? It won't cost you anything more and you may pass it. Advanced holders get twice the spectrum space on the lower bands, so it is well worth the effort. There are those who think the advanced is easier than the general. What do you lose by taking the test, even if you don't pass? Nothing. We just can't understand why more people don't take a whack at it while they are down at the FCC office.

One of the finest aids in getting your general (and advanced) is the **Posi-Check**. You will find their advertisement in the classified section of **QST**. It is a practice test with hundreds of sample questions. The answers are given so you can see how you did.

The procedure to use: take the test all the way through. The ones you miss, study the correct answers. Take another run through the ones you missed. The ones you missed again, give some more study to. Then take the entire test again. The ones you miss then, give some study to.

The **Posi-Check** answer sheets give you the reasons for why they are the right answers. When you are hitting 95 per cent correct on the **Posi-Check**, you are ready for the test. You'll find that it is a terrific aid.

Speaking of **QST**, you should absolutely join the American Radio Relay League. It is the only voice amateur radio has. The League has done so much to insure, over the years, that there is an amateur radio, that someone not being a member means they are not "a part of the team." Also, join your local radio club, you'll get a lot more out of amateur radio when you do.

On-the-air. Most novices start out with inexpensive equipment (understandable) then when they tune across the band it seems that all the stations are on top of each other. Not quite so. It appears that way due to the lack of selectivity of the receiver. A low-cost audio filter placed between the output of the receiver and your earphones will work absolute wonders. You will be amazed at the difference. We can highly recommend the filters made by MFJ Enterprises. Send for their free catalog at P.O. Box 494, Mississippi State, MS 39762.

Operating: If there is any advice that could be offered a new radio operator that would make a big difference, it is this: **Do not send long CQs.** There is nothing more aggravating to the potential contact than to hear 35 to 40 CQs before the call comes along. Your potential contact has tuned away. All you need is CQ CQ CQ de WN6XYZ WN6XYZ WN6XYZ, repeat that twice more and give it the K.

We know one amateur (an extra class, 25-year-type, so he should know better) who delights in going into the novice band and counting the number of CQs a novice sends before signing his call. What the novice gets back is his own call sent as many times as he sent CQs. It doesn't show a lot of "couth", but possibly the novice gets the idea.

Most novice activity is on 40 and 80 meters, with 10 and 15 neglected by comparison. While the sunspot low has kept those bands from their "gangbusters" way there are still many opportunities to snag good DX. Also, when the band is "dead" 10 meters is a marvelous band for local nets and ragchews.

Next month; We'll be looking for your ideas and experiences and this column will review the various tapes and records produced for learning and building up speed in Morse Code.

WB6QHL

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Whitey's Bean Feed

Sponsored by the Mesilla Valley Radio Club, Whitey's Bean Feed will take place at La Mesa NM (near Las Cruces, NM).

Starts at noon Saturday, 26 April and continues through Sunday.

Swapfest, Chili Bean Feed (Whitey, K5ECQ as Chef), Beverages, Prizes and Eye-ball QSOs.

Free parking for campers on the grounds on Saturday night. Adults $3.50, Kids $1.50. For info contact Len Ullom, K5HZH, 1020 Circle Drive, Las Cruces, NM 88001.

INTERFERENCE

Dr. Theodore Cohen, W4UMF

The big news this month is the recent Consumer Electronics Show sponsored by the Consumer Electronics Group of the Electronic Industries Association (EIA).

Held at the Conrad Hilton Hotel in Chicago (Jan. 5-8), the show was attended by about 40,000 people who are manufacturers, importers, dealers or servicemen in the consumer electronics industry. Perhaps most significant from the standpoint of the amateur was the fact that for the first time in the show's history, the FCC had a booth at the show—and this booth was dedicated to the problem of RFI!

The FCC presentation centered on the presentation of information in the following areas:

1. Certification of receivers (with respect to incidental radiation);
2. Susceptibility of audio devices to strong rf signals;
3. Types of interference sources.

More specifically, the exhibit included a variety of home-entertainment equipment (TV, AM radio, FM radio and phonograph) together with a suite of devices which were used to generate interference (spark coil, SCR lamp dimmer, electric razor, flourescent lamp and a portable FM handi-talki).

The equipment was so connected that each consumer device could be turned on along with any one of the various interference sources. The exhibit was most effective in demonstrating the RFI problem which faces the consumer today.

In addition to the demonstrations provided, the FCC also had personnel in attendance to answer questions, hand out literature (including copies of Raymond Spence's talk on RFI which we covered in a recent "Interference" column) and, among other things, provide information on what can be done at the time of manufacture to reduce the susceptibility of home-entertainment equipment to strong rf fields.

The FCC booth was on the show's VIP tour, and it's estimated up to 2000 people stopped by the booth to examine the exhibits in detail.

Congratulations to the commission on its work in the area of RFI, and on moving to make the electronic industry so aware of the need for increasing the rf rejection (and suppression) capability of its products.

Thanks to Jules Deitz of the FCC, and to Jordan (Kap) Kaplan, W9QKE, for the above information.

TVI Committee

For years, the Washington Television Interference Committee (WTVIC) was one of the most active TVI committees in the U.S.

It was also one of the most effective, due in no small way to the number and quality of the publications it made available to the television service community, the amateur and the consumer. One of these publications, "A General Review of TVI Causes, Effects and Solutions," is still available and can be obtained by sending a self-addressed manila (9 x 12") envelope with 40 cents postage affixed to: Hal Richman, W4CIZ, 3908 Lake Blvd., Annandale, VA 22003.

Hal has about 500 copies of the booklet left, and when they are gone, no more will be printed. Better get your copy now!

Survey

Hal has about 500 copies of the booklet indicated that Hal was conducting a survey of those who manufacture home-entertainment devices, this work being part of his efforts on behalf of the ARRL RFI Task Group.'

Working with the assistance of his daughter, Barbara, Hal has sent out over 80 letters to various manufacturers in an attempt to learn whether their equipment is designed to reject strong rf fields which might cause interference, and whether the manufacturer will take action in those cases where their equipment does intercept a signal. Answers are starting to come in, and early indications are that many manufacturers are quite concerned about the RFI problem.

Response

In a letter from the Baldwin Piano and Organ Company, for example, Robert C. Scherer, manager, Organ Technical Service, stated: "For a number of years, we have seen to it that our organs contain numerous components which are solely for the purpose of rejecting or filtering unwanted R.F. Interference. This adds to the manufacturing costs of our organs; however, we feel that this extra effort on our part has minimized complaints concerning R.F. pickup on Baldwin organs."

As an example of Baldwin's work in the RFI field, the standard Baldwin preamplifier circuit ". . . utilizes a total of 34 components, 11 of which are used solely for R.F. rejection." Further, "additional R.F. protection is provided in other amplifier sections of the instrument."

The Schober Organ Corporation also has taken steps to reduce RFI. According to Warren A. Boehling, development engineer, "(our organ) circuits have been redesigned to eliminate the (RFI) problem and previous customers have been supplied the necessary modifications at no cost, when needed."

Boehling recognized that in some cases, the rf field from a nearby transmitter may be so strong that pickup does occur. "In these cases, we have assisted the customer in the location of the offending stage(s) in the organ, and have supplied the necessary parts free of charge to correct the trouble."

Other organ manufacturers, too, indicated a familiarity with the problem and stated that assistance would be offered. The Allen Organ Company, through David L. George, national service manager, said, "Whenever we have a customer complaint regarding R.F. interference, we send the dealer (a service) letter and sufficient components to cover all amplifiers in the affected instrument. This is done on a no charge basis and usually solves the problem."

Finally, the Conn Organ Corporation, in a response prepared by Thomas A. Umbaugh, assistant service manager, stated that "design modifications have been incorporated in the reverb pre-amp assembly to reduce its susceptibility to RFI. Whenever necessary, these modifications can be added to older instruments to eliminate a problem.

"Most cases of RFI are noticed in new organs that are still in warranty. In these cases, the problem is usually corrected without cost to the organ owner by the selling dealer. If the dealer that sold the organ is for some reason unable to

(*please turn to page 39*)

TEACHER

This new monthly column is designed to be an "idea exchange" between instructors of classes leading to licenses. Your input is important. Share what worked for you. Share what didn't work, so as to save others the grief.

The first night the class meets is probably the most important night. You will find that most dropouts occur after the first night. The second night will drop out a few more. Then you can expect the remainder to stay with you.

One must work hard that first night to "sell" amateur radio. You must give them a reason to become amateurs. Tell them about it. We have a rich history and a fantastic future. You should be able to tell them amateur radio is the most fascinating activity they will ever run into.

The lore of this avocation is endless. Welcome them to the fraternal spirit that exists. Tell them of the great world that will be theirs. The horizons that amateur radio opens up are limited only by one's own imagination.

It's up to you to inspire them. What other activity can lead the young into a career, give the adults a fingertip grasp on the world and bring so many new friends into the home of the retired?

You may be met by the question, "Do I have to learn the Morse code?" Your answer could be, "That's the way it goes, bub, shape up or ship out." But that won't make any friends. Someone may ask "Why do we have to learn the code, I just want to talk." Don't give them a brusque answer either.

One can tell them we want people who "want" not "wish" to be radio amateurs. We like people who are willing to work for it, because they respect what they had to work for. If you get something too easy, without having to work for it, you don't respect it. It is our way of separating the wheat from the chaff.

But here is an opportunity to sell CW. After all, this is the "skill" of "radio operating" rather than just "radio talking." Talk about CW as something worth knowing, one that sets one apart from others who don't know this useful skill.

You can use as an example the handicapped among us who wanted to be radio amateurs so badly that they, paralyzed, would take the code test by hitting the keys of an electric typewriter with a stick in their teeth. There have been people pass the 13 wpm test whose arms were so crippled they couldn't run a regular key but had to use an electornic keyer. How about the deaf who have passed the test by feeling the code on the cone of the speaker? That's determination.

Tell of the advantages of CW. Going further on less power, working stations when phone can't be heard, inexpensive equipment, small equipment, emergency capability, etc.

As the course progresses, some will have difficulty with the code, even getting to five wpm. Don't let them get discouraged. Tell them about your friend who had a terrible time getting to five wpm. He thought he would never get it. He tried and tried and tried, with no success. But he never quit. Today he is an extra class and practically on top of the DX Honor Roll. If you don't have such a friend, you can use my friend as an example. He told me about it the other day over lunch.

If you have an adult class, and some get discouraged, here is something you can use: "Remember when you were in the Army and the sargeant would make you run up and down the stairs with your foot locker? Look at all the hard things other people have made you do. You did them and survived, and were better for it. So, work as hard for yourself as others made you work. You will find that after you are a licensed amateur, any amount of work you had to go through to get it was easily worth it. Anything worth having takes work to get."

Tell them once they share the rich rewards that amateur radio has to offer they will agree that the price they had to pay was indeed small.

That's part of what makes this a "fraternity," knowing that others went through the discipline necessary and went down to "the marble halls" to test their mettle.

Inspire your students to be great amateurs.

And, send your ideas to this column.

Armond Noble, WB6AUH

ANTENNAS

We start yet another new feature. It's about something important to every radio installation . . . the antenna. We intend this column to be hints, tips and kinks. We also have some reviews of commercially-made antennas in the works. So send it what you would like to share.

This month's entry comes from Charlie Anderson, K2KF, of Oakhurst, NJ.

My favorite dipole is the "bazooka." This antenna was first described by W8TV in the July 1968 **QST**. It appeared in the antenna section of the ARRL Handbook (but not in the Antenna Book!) for several years, up to and including the 1975 edition.

I have had one in use on 80 meters for several years, and it's the only antenna I have ever used which has less than 2/1 VSWR over the entire band from 3.501 to 3.999 MHz. On 3.695, the needle doesn't even move off the pin on the VSWR meter on my Argonaut! I have also used bazookas as monopoles working against a car body for portable operation on all bands from 80 through 15, with good results.

As WB2WCO/4, I placed first in Alabama in the spring QRP ARCI QSO party last April, using bazooka monopoles on 40, 20 and 15 with five watts input to the Argonaut. If you think I'm sold on the bazooka, you're absolutely right! One note—I've discussed the bazooka with Walt Maxwell, W2DU, whose series on VSWR and transmission lines is running in **QST**. Walt's conviction is that the bazooka works, but not for the reasons which W8TV gives in his article.

The theory I leave to the experts—all I know is, it's a mighty fine one-band antenna! No; I have to modify that, the 80-meter bazooka works well enough on 10 (less than 3/1 VSWR) to have netted me five new prefixes during the CQ WW contest, with five watts input.

An additional advantage should be mentioned. The bazooka can be de-iced over the coax portion of its length by using a Variac and a step-down transformer with a husky lower-voltage secondary to heat it up. This has turned out to be useful in a couple of the ice storms of recent winters here on the Jersey Coast. If you take advantage of this, be sure to use a type of coax which has a Copperweld center conductor, because of the higher resistance of that type of wire.

It also helps to use a feeder cable of at least the same size, or larger. Using the Copperweld center conductor cable is also good because of the higher tensile strenth. When de-icing, start with low voltage out of the Variac. Keep checking the antenna and gradually increasing the Variac setting until you can tell that the ice is melting off. After the first trial, you can just set the Variac to the same point each time you need to use it.

Next month we'll talk about some new ideas regarding the folded dipole and the inverted V, also you'll hear about the Wilson 20 meter beam.

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MOSAIC AMATEUR RADIO NET

The Mosaic Amateur Radio Net is an international, non-profit, non-commercial association dedicated to serving mankind and fostering international good will.

It is an association of Masonic amateur radio brethren and members of the appendant Orders. Membership in the Mosaic Amateur Radio Net — better known by its acronym MARN — is open to all members of the Masonic Order and those of the appendant Orders who possess any class of amateur radio operator license.

There are no dues and the nominal membership fee is perpetual. You are invited to write for information.

11049 Avenue "E"
Chicago, IL 60617

CONTINUED FROM...

Traffic

(*continued from page 34*)

5) Traffic tip: Contrary to popular belief the precedence of a message is not part of the message number. They are two distinct parts of a preamble. Often we hear the message number repeated as "nr 18r." Split them up into the separate entities that they are. The number 18 and the precedence "routine."

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Towers, zoning

(*continued from page 15*)

this section they finally come to a word that's italicized, and they say "provided," that this section shall not apply to the receiving, divulging, publishing or utilizing the contents of any radio communications broadcast or transmitted by amateurs or others for the use of the general public or related to ships in distress.

By golly, us amateurs have something different, mabe the FCC couldn't use this against CBers but we amateurs can use it because we're exempt, it says here when transmitted by amateurs or others for the use of the general public.

So, I say, fellows, get out your tapes. And let's tape these guys and let's turn them in and let's use them. I'm convinced in what I read here, that we have the right to use those tape recordings in those matters. I think that on the basis of the 605 in the cases that have decided it and the exception in the case of amateurs, that the U.S. attorney's office could be persuaded that those recordings in a criminal prosecution would be justified.
(conclusion)

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Interference

(*continued from page 37*)

correct the problem, factory assistance is available."

We applaud the electronic organ industry for the steps they have taken to resolve RFI problems at the time of manufacture! !

Hi-Fi

Turning to hi-fi equipment, a recent letter from Bang and Olufsen a/s, Danish manufacturers of high-fidelity equipment for the consumer, tells that their equipment is designed and tested to reject strong rf fields from nearby transmitters which might otherwise cause interference.

Using a laboratory built especially for the purpose of testing new equipment designs for susceptibility, the company uses a typical amateur station operating in all of the hf bands (3.5, 7, 14, 21 and 28 MHz) to test their systems for rf susceptibility. The transmitter is a Kenwood TS-515 operating at 300 watts input. The antenna is a Hy-Gain 18 AVT/WB, mounted 20 meters from the system under test, and at the same level.

During the test, the transceiver is modulated with a pre-recorded tape containing a 20-4000 Hz frequency sweep and a 1000 Hz sawtooth waveform, both of which have been found effective in testing hi-fi equipment. The tape also contains voice passages, as well as a section with music.

The system under test is checked at both minimum and maximum volume, and is also tested in the "off" condition. An appraisal is made by a group of people who listen to the system and a decision made as to whether interference is present. No objective measure of the interference is made, though the estimated signal-to-noise level obtainable using the subjective methods employed is close to 60 db.

The work of the aforementioned manufacturers indicates that many are seeking to eliminate RFI as a source of irritation to their customers.

How about you?

Do you or your neighbors have an RFI problem? In 1974, the FCC received over 42,000 RFI complaints, up 20 per cent over those reported in 1970. And, in each of the last five years, over 60 per cent of the interference cases reported were for TVI.

What can you do about? Send for a copy of the ARRL RFI Task Group's RFI packet and learn the new approach to solving RFI problems. Send a large manila (9 x 12") envelope with 40 cents postage affixed to: Secretary, ARRL RFI Task Group, 8603 Conover Place, Alexandria, VA 22308.

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Mart

(*continued from page 40*)

Cleaning Shack. SASE for list. Johnson Ranger $75.00. Hammarlund Hq110C $75.00. Collins 75A2, $150.00. Hallicrafters SX101A, $150.00 with speakers and manuals. Eico 753 Tri Band SSB/AM/CW Transceiver solid state VFO. 751 AC power supply and speaker $100.00. 2 and 6 meter AM gear. Wanted for cash or trade. Heath SB610 monitorscope, SB 630 station console, dynamic desk mike. John Maver, W6MQK, 1049 N Holliston Ave., Pasadens, CA 91104. 213-798-9345

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

TV Cameras with zoom lens and solid state electronics, NEW, bankruptcy sale $110 (technical manual included). Power Supply with BNC output jack $30 or build your own — mating connector and schematic $1.25. (Plus $5 handling/shipping within USA. California residents add 6% tax). W6WQD, Bob Allen, 124 Lundy Lane, Palo Alto, CA 94306

Help: Need instructions for Johnson-Hallett Mobile Eliminoise Model 80. W6DMJ, 760 San Ysidro Lane, Montecito, CA 93108

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Doug Douglas, K6BAZ, offers Japanese translations free to anyone. These are sign on/off, RST, and similar phrases to make that Japanese QSO more enjoyable; all are phonetically spelled for easy pronunciation.

Repeaters

(*continued from page 24*)

service to all members both for emergency use and your own convenience.

1. You must be a member of the repeater organization on which repeater you wish you Auto-Patch. Transient units must contact the control station who may dial for them.

2. **Do not use an Auto-Patch where regular telephone service is available.** A control station may access and dial a number for a mobile or portable station requesting him (her) to do so. **Do not DX** repeaters and use their Auto-Patch. This is in violation of existing tarriffs filed with the telephone company.

3. Do not use the Auto-Patch for commercial purposes. This covers any type of a call where business gain by you or the person you are talking to is involved. This is in violation of F.C.C. rules. If you have any doubt as to the nature of your call — DON'T MAKE IT!!!

4. Do not make any operator assisted calls; e.i. Information. Ask a base station to look the number up for you or carry a telephone director with you.

5. Do not make unnecessary calls e.i. broadcast type messages; time, weather bureau, home, neighbor — even if the repeater isn't being used.

6. Auto-Patch activity has priority over normal repeater use. However, a little common courtesy is required. If the repeater is in use, ask yourself if you must make the call now can it wait until those presently operating are through. As permission to use the Auto-Patch.

7. Emergency Auto-Patch has priority over normal Auto-Patch calls and normal repeater use. Use a "Priority Break" or Emergency Break" for an emergency prosign. When no one is on the repeater, when you access the Auto-Patch, — Identify your call as an emergency communication. Record and report all emergency telephone calls on the Auto-Patch to your club or area representative.

How to use the auto-patch

A. Check for a clear frequency, be sure you have a good signal into the repeater.

B. Say: This is (your call) requesting Auto-Patch and then drop your carrier.

C. Punch up the correct access code for your repeater and drop your carrier.

D. Wait for the Dial Tone.

E. Dial Number — keep your pulses as short as possible to prevent misdialing.

F. When person answers — inform him (her) they are on the radio (this is to prevent any unwelcome or embarrassing comments).

G. Keep your call as short as possible.

H. When your calls is completed depress turn off tone(s).

I. Identify: This is (your call) clear the Auto-Patch at (time) on (date).

J. F.C.C. rules require the called party must be identified.

Reciprocity agreements

A. All repeater organization members are encouraged to welcome and willingly provide assistance to transient amateur operators. Transient is defined here as a person who does not live within the normal talk area of a repeater and one who does not daily travel in the same repeater talk area.

B. You should belong to a repeater club or a club which has a repeater to continuously operate through that repeater. Belonging to one organization does not give you unlimited rights to other repeaters in your same talk area. If you use other than your organization's repeater to call another station, as soon as contact is made, switch back or switch to a simplex frequency.

C. There are absolutely no reciprocal agreements for Auto-Patch use.

D. Emergency and/or emergency tests, A.R.E.C. functions, e.i. Fund Drives etc., operation on any repeater may be conducted for the duration of the exercise, providing of course, you have permission to use the repeater for that function.

E. Each organization which has established a repeater has invested large sums of money in equipment, up keep, electricity, telephone, let alone the time spent to construct the repeater, its associated hardware and to keep it running. Therefore a "share the cost plan" has been adopted by each organization to support their repeater.

F. If you are a non-member, common courtesy is expected. Do not engage in long winded QSO's even when no one else desires to use the repeater. You are using the equipment, it cost money to keep it running, you are not contributing anything to its support.

Amendments

A. Amendments to this guide may be endorsed by a local club at their option.

* * *

This General Operating Procedures was adopted unanimously by the Ohio Area Repeater Council during its regular meeting July 7, 1973 in Delaware, Ohio.

James M. Hagedon, K8YQH
President
George R. Cryder, W8LGL
Secretary

For additional information on O.A.R.C. activities please contact: Mr. George R. Cryder, W8LGL, P.O. Box 23, Delaware, Ohio 43015.

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Private individuals, 5 cents a word
Business firms, 9 cents a word

Be prepared for emergencies with the SST T-1 Random Wire Antenna Tuner. Also great for field day, camping trips, and home operation. Tunes a random wire for all band operation. $24.95 postpaid. 1 year guarantee. See large ad this issue. SST Electronics, Box 1, Lawndale, CA 90260 (Calif. res. add 6% sales tax)

Mor-Gain: for almost 20 years, has produced the highest performance, most reliable, most convenient, and least-cost multi-band HF dipoles. Write for complete technical data. MOR-GAIN, Dept N, 300 Shawnee St., Leavenworth, KS 66048

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

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

Frame, Display and protect your QSL's with 20 pocket plastic holders, 2 for $1.00, 7 for $3.00 prepaid & guaranteed. TEPABCO, Box 198W, Sallatin, TN 37066

Comet Kohotek Souvenir Photographs — An actual 8''x10'' photo taken thru a powerful telescope. Send $1 to SKYFLIX, P.O. Box 463W, St. Joseph, Michigan, 49085.

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

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

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

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

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

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

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

Interested in amateur FSTV, SSTV, UHF, VHF, RPT? Subscribe to A-5 Magazine. Devoted to Ham TV. 1 year $4, 2 yr $7, 3 yr $9. Published bi-monthly. Since 1967 A-5 Magazine, Box 128, Whitmore Lake, MI 48189

Teletypewriter parts, manuals, supplies, equipment, Toroids, SASE for list. Typetronics, Box 8873, Ft. Lauderdale, FL 33310, W4NYF. Buy parts, late machines.

Free Catalog! Semiconductors, ICs, Diodes, RF Transistors, Tubes, etc. Send SASE to MHZ Electronics, PO Box 7155, Phoenix, AZ 85011. Phone (602) 947-1287

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

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

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

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

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

Wanted for Cash$$$ Airborne Radio Equip. Receivers: 51R7 — 51R8, 51RVI — 51V5 — 51Z6 — R-30A — R-1051 — R-836 — and ARN #82, 83, 52, 65, 86. Transceivers: 618MI — 618M2 — 618T2 or 3, 807A and ARC #94, 102, 84, 54, 131, 134, 114, 115, 116, 73, 51BX, RT-841/PRC-77, VRC-46. Transponders: 860E3 — 621A3 — APX-72. Radar: APN-158 WP-103B. Antenna Tuners: CU-1658A — 490TI — 878L. Misc AN/WRC-1, Rt 524, Tek. 576A, 453, 575A. Call Collect or write: A.R.S. Electronics, 616 Holmby Ave., LA, CA (213) 279-1275.

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

$$$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

YAESU Transceiver — FTDx570 Built-in Power Supply, Fan, Speaker, Clarifier, Manual, Original Box $450.00. WA6AYA, Box 567, Hemet, CA 92343 (714) 925-7384

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

Buy — Sell Recondition Teletype Machines, Acoustic Couplers, Modems, CRT's and accessories. Call or write: Vardon & Associates, Inc., 930 N. Beltline, Suite 140, Irving, TX 75061, (214) 252-7502, TWX 910-860-5761

Fax Paper, 19-1/8'' wide. Good for weathermap and desk fax recorders. $2.95 box, 4 for $9.00, 12/$25. Fax and RTTY list free. Jim Cooper, W2BVE, 651-W Forest Avenue, Paramus, NJ 07652

Every shack should have a legible wall clock. We got 'em. 12 or 24 hours, battery or electric, 8'' or 12''. Steve, WB5BNM, 1524 N Oklahoma, Shawnee, OK 74801.

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Quality PC Board Pulls — 25¢ per pack. (25-1% res) — (5-20v zeners) — 50-914 diodes) — (10-50v caps) — 10 220 pfd caps) — 2 ea inductors (choice of 1.45-2. 123h — 6.21 mh — 34.8 mh — 22.5 mh — 35.1 mh — 41.8mh — 42.5mh — 43.7mh — 48.2mh — 77mh — 120mh — 143mh — 158mh — 260mh — 310mh — 327mh — 537mh — 870 mh — quantities limited). 4 ea (choice of 7083 — 9612 — 9452 — 9362 — 9442 — 6916a — 6926a — 6922a — 6918a). 5 transistors (choice of 2N5137 — 2N5138 — 2N364 — 2N3646 — 1805 — 1002 — 1003 — 1004 — 1005 — 1006 — 2N930 — 2N404) 3 TO5 case (choice 2N1308-2N1613) 3-IN2070, 600v 1A diode SASE for new list. Meade, 994 Woodlawn One Thousand Oaks, CA 91360. Please include postage.

SASE for list of old radio publications for sale or trade. Richard Randall, K6ARE, 1263 Lakehurst Rd., Livermore, CA 94550

CLEGG, Swan, Crushcraft at prices I dare not publish. Call or write W0NGS, Bob Smith Electronics, 1226 9th Ave., North, Fort Dodge, IA 50501 (515) 576-3886

Finest QSL cards plain or raised lettering over 200 stock plus to choose from. Fast service, samples and catalog, Send 35¢. Ritz Print Shop, 5810 Detroit Ave., Cleveland, OH 44102.

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Pinto Runabout Mobile: K6ART has the 1974 model complete with Factory ''Air'' and Fordomatic Transmission. About to install ATLAS ''210'' De Luxe Mobile Plug-in kit and would appreciate any constructive ideas as to where and how from those who have accomplished same. One small difference, however: Most of the mobile operation will be from the right or ''Shot-Gun'' front seat, due limited physical impairment with small percentage from driver's seat. Please write suggestions to: Col. D.W. Titus, USAF — Ret., 79 Swan Lake MHP, Mira Loma, CA 91752

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

Two (count 'em) two meter 2KW Plummer special amps with supply in rack mount. Built in BIRD wattmeter. 4CX350's ETC. WR8ACY, Box 463, Whitmore Lake, MI 48189

Wanted: Motorola MAV-PACKs. Ed Howell, Box 73, Folly Beach, SC 29439

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

Broadcast station for sale! Former major market Chief Engineer, Advanced Class Ham (W6GIV) needs active or inactive partner. Class 1v AM, fulltime, 1000/250 watts, non-directional in California! Includes 5 acres and home. $15,000 down needed. Meyer Gottesman, 863-25th Ave., San Francisco, CA 94121 (415) 751-1974

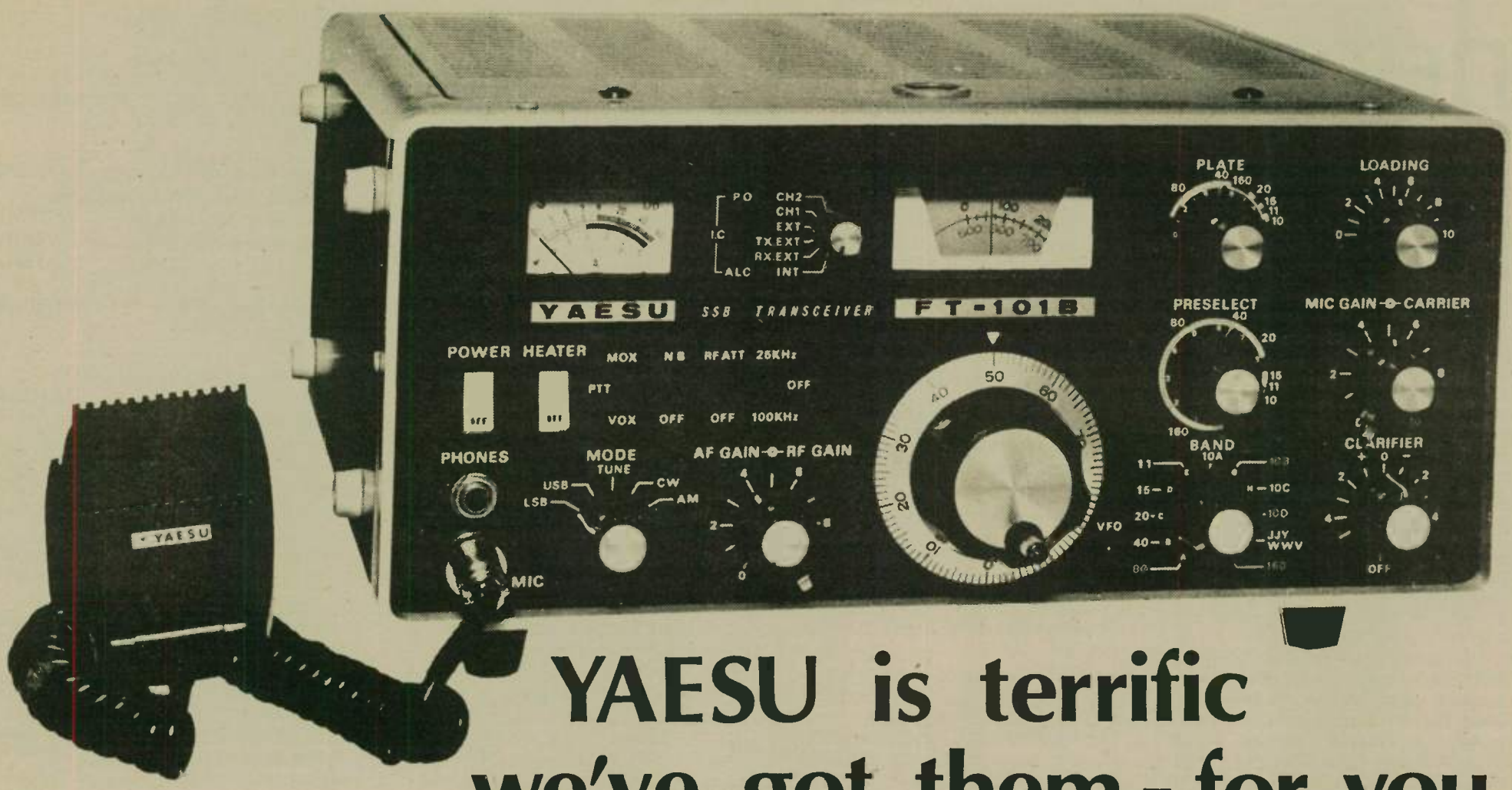
Last three years CQ and QST mags, perfect condition, four bucks per year, W2JBL, 123 Davis Ave., Hackensack, NJ 07601

For Sale: Heath SB200 Linear, top condx $170. Contact WB6VFF, 151 Forest Knolls, San Francisco, 94131. Phone: 415-731-2876

TTL components — first rate ''Not surplus''. Nineteen of the most popular types available; 7400 through 74195. Full set of spec. sheets sent with each order free, $1.00 when purchased separately. Other products available, Standard, Hy-Gain, Galaxy, Write for catalog, Bercom Electronics, PO Box 237, Bergenfield, NJ 07621

Swan 600 line complete with vox and CW filter. Excellent Condition, no modifications. Telrex 6 element 6 meter beam and FM twist. Best Buy from Bob, K2YFE, Box 25, Lanoka Harbor, NJ 08734

(please turn to page 39)



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nets

PREAMBLE

This Net Directory lists all nets that have registered with ARRL since the latest printing of this directory in July 1973. Annual registration is required for listing. Nets listed in this directory are not carried over to next year's directory unless registered prior to June 1, 1975. Nets not included in this directory also must register by June 1, 1975 in order to be listed in next year's directory. Nets are registered on form CD-85, available from ARRL. Only those nets on frequencies inside the amateur bands, and whose primary function is public service are listed.

This directory is for information only, and does not necessarily imply that the net listed has any official connection with ARRL. Listing does not give any net the right to prior or exclusive use of a frequency at any time. Information is produced as accurately as possible in accordance with the information supplied by the registrant.

The directory is divided into three parts. Part I is the master listing which contains all information on nets registered. Part II is a breakdown by state and province where net coverage is contained within the boundaries of a single state or province. In Part III the nets are listed in order of ascending frequency. Please note that Part I, the master list, carries complete information on the nets and reference to this section will likely be necessary when using Parts II and III.

Novices interested in net operation may locate information on novice nets by checking Part III, the listing by frequency, for nets within the novice bands. Cross checking to Part I will give all information on such nets.

Information listed in the columns in Part I is as follows:

Net Name — Listed in alphabetical order. A double asterisk (**) indicates that the net is part of the ARRL National Traffic System (NTS). Nets are not listed as NTS unless specifically registered as such. Nets alleging to be part of NTS but not indicating proper liaison or coverage are not following the system concept, and as such are not indicated as parts of NTS. Refer to the Public Service Communications manual for further information on NTS.

Freq. — The net frequency or frequencies in kHz. When a repeater call was given, it is listed below the frequency.

Days — Days of operation. M = Monday, T = Tuesday, W = Wednesday, Th = Thursday, F = Friday, S = Saturday, Sn = Sunday, Dy = Daily (7 days per week), H = Holidays, 1/3Sn = first and third Sundays of each month, etc. Days of operation are per GMT, not local time.

GMT (UCT) = Time net starts in GMT per daylight saving time. An asterisk (*) indicates that the net does not change time (per GMT) when states revert to standard time.

Purpose — E = Emergency preparedness; T = Traffic handling; L = NTS Local; S = NTS Section; R = NTS Region; A = NTS Area; W = Weather; O = Other. All NTS nets have both E and T purposes.

Coverage — Area the net covers or serves. States and provinces are abbreviated with standard 2-letter abbreviations.

Mgr. — Call of net manager or other amateur to whom correspondence can be directed.

continued from last month's issue

Broward Emegency Net (BEN)**	(in) 146,310 out (146,910 WR4ADU	Th	02330	L	Broward Co., FL	WB4FLW
Buchanan County CD Net	(in) 146,250 (out) 146,850	Sn	1240	ETW	North Western MO North Eastern KS South Eastern NE	KØCWQ
Burlington Rag Chew Net	28,600	SSn	0030	T	Burlington Oakville ON	VE3FMB
Calaveras County RACES Net	3990	S	1700	ET	Calaveras & adj. Cos., CA	W6PNY
California Post Office Emergency Net (CAPON)	3693 3917	T-S	0330* 0300*	ET	CA	W6QLJ
Caravan Club Net	(in) 146,130 (out) 147,060	Sn	0200	ET	Central NM	W5STB
Carolinas Net (CN)**	3573	Dy	2200	S	NC SC	
Carteret-Craven ARC Net	28,900 145,800	Th	0000 2330	ET	Carteret & Craven Cos., NC	WA4HAQ
Central Area Net (CAN)**	3670/7067	Dy	0130	A	Central Area	WAØMLE
Central Gulf Coast Hurricane Net (CGCHN)	3935	Dy	0100*	ET	AL FL LA MS OK TX	WB5DVS
Central Illinois Emergency Net	145,350	Sn	1400	E	Central IL	WA9MFP
Central Illinois Net (CIN),	1815	SN	1315	ET	Central IL	K9ORF
Central Michigan 2 Meter FM Net	(in) 146,340 (out) 146,940	Th	2300	ETW	Central MI	K8ILF
Central New England Net (CNEN)	3945	M-S	1030	ETW	North Eastern USA	W2BKI
Central North Carolina Traffic Net	(in) 146,130 (out) 146,730	Dy	0100	L	Central NC	K4GHR
Central Ohio AREC Net**	29,000 (in) 146,460 (out) 147,060 223,460	Th	0000	L	Central OH	WB8IBZ WB8GVI W8ERD
Central Ohio Technical Net	146,520	M	0000	O		WB8JGO
Central States VHF Liaison Net	3980	M	0130	O	Central USA	K5BXG
Central Texas Emergency Net (CENTEXEN)	3910	Sn	1300	ETW	Central Eastern TX	W5BOO
Central Virginia 6 Meter Net (CVN)	50,250	Dy	2200	T	Richmond, VA	K4AL
Central Virginia 2 Meter FM Net (CVN)	(in) 146,010 (out) 146,610 WR4ABU	Dy	0000	ET	Central VA	WB4PNY
Champaign Logan County Emergency Net (CLARC)	145,680 146,520	W	0000 0030	ET	Champaign & Logan Cos., OH	W8HF W8JS
Champlain Regional Repeater VE3STP Mininet	(in) 146,460 (out) 147,060 VE3STP	Dy	2250	L	Upper Ottawa Valley	VE3ACN
Charlotte Hornet Six Meter Net	50,400	M	0000	L	Piedmont Area NC SC	WB4CED
Chemung County AREC Net	50,500 146,520	S M	2330 0000	ET	Chemung Co.,	NY
Clarion County Amateur Net	3720 3955	S	2100 1100	E	Clarion Co., PA	WA3IYA
Clark County Emergency Net	3907	Sn	1630	ET	Clark Co., OH	W8VZE
Clearing House Net (CHN)	3925	M-S	1500	ET	W1-2-3	WA2DDD
Coast Guard Net	14,313	M-F	1600	T	USA & South America	K4CG
Codfish Net	145,260	Dy	1300/2300	ET	Barnstable, Duke & Adj. Cos.	W1NT
Colorado Code Net (CCN)**	3657	Dy	0030	S	CO	WBØHCK
Columbia County AREC Net	145,230 146,520	1/3T	2300*	ET	Columbia Co., NY	W2KHQ
Columbia Montour Traffic Net (CMTN)	3720	Dy	2300	L	Eastern PA	WA3UDV
Comanche County AREC Net	3720	Sn	1800	ETW	Comanche Co., OK	K5BYF
Confederate Signal Corps (CSC)	146,520	M	2300	ETW	Atlanta, GA	WB4GFI
Confusion Net	14,305	M-F	2100	T	International	
Connecticut Net (CN)**	3640	Dy	2300/0200	S	CT	K1EIR
Connecticut Phone Net**	3965	M-S SN	2200 1400	2200	CT	K1YGS
Connecticut Slow Net (CSN)	3720	Dy	2130	S	CT	WA1SHO
Continental Traffic Net**	14,315	Dy	1730		USA and Canada	K7IFG
Coosa Valley Emergency Net-1	3950	Sn	1730	E	North Western GA Middle TN	k4YRL
Coosa Valley Emergency Net-2	(in) 146,340 (out) 146,940 WR4ADH	Dy	0130	E	North Western GA Middle TN	K4YRL
Corn Cob Net	7274	M-F	0900	ETW	FL	K4HXW
Cornhusker Net	3980	Dy	1730	ETW	NE KS IA	WAØGHZ
Crawford ARD Emergency Net	(in) 146,040 (out) 146,640 WR3ABN	M	2330	ETW	North Western PA	K3ZOB
Dade Emergency Net (DEN)	146,940	Th	2300	L	Dade & Monroe Cos., FL	K4EBK
Dallas County RACES Net	146,880	M	0100*	EW	Dallas Co., TX	K5LZA
Daytime Michigan Post Office Net	3955	M-S Sn	1500 1700	T	Mid Western USA	K8LNE
Delaware County Public Service Net	50,630	Th	2330	ET	Delaware Co., PA	WA3VEF
Delaware Emergency Phone Net (DEPN)	3905	S	2200	S	DE	WA3DUM
Delaware Traffic Net (DTN)**	3905	M-F	2230	S	DE	WA3DUM
Derry CD Net	28,740	T	2300	E	Derry, NH	WA1CFT

Continued in next month's issue

Towers, zoning and the law

(*continued from page 8*)

difficulty and the hope reserved that he shall receive relief from the Federal Communications Commission."

But it got thrown out of court and that was the important part. And he didn't do anything about it; in fact, at that point, he turned to us and finding us to be not all bad people said, "Well, can you help me out?" so we got the TVI Committee out there and I went up there and we put traps around and filtered things and he was happy and so everything came out all right.

Now, I thought you'd be interested in some of the recent things that have happened and I would like to mention a few of them.

I told you about the recent case involving a variance and what the court had said. I figured if you go by the strict rules of what it says, a variance means that you have real troubles. But, I haven't run across a situation where they have gone that far.

We now have a case in California involving a phone patch indirectly. The case came down in April of 1974 and is rather interesting. It was called Phone Tel, Inc. verses the Public Utilities Commission and the Supreme Court of the State of California decided it. If you remember, the legaue changed its policy back a few years ago in talking about phone patches. You know, there was a question about whether you could put them in or not.

The case in California says, "the two leading authorities on connecting customer owned and maintained equipment to the telephone system are Carter-Phone, which is an FCC matter and Hush-A-Phone Corporation vs. the United States, which is a Federal Appellate Court case.

So these two cases established that the use of customer-owned equipment may be prescribed only if it shows the instrument in question will have an adverse effect on the telephone network as a whole. Carter-Phone makes it clear that a showing that a device might be harmful, might harm the system, is insufficient to justify prescription, and that a finding of actual adverse impact on a network or at least a probability of such impact is required.

The commission itself has held that an attachment must constitute an unreasonable burden or have a substantial adverse effect upon the telephone network in order to justify in having its use withdrawn.

We now have as of April last year a decision by the California Supreme Court that goes beyond the ones that were the basic rules that caused us two years ago to change our attitude toward phone patches, and that's kind of a good thing too.

There's one other point I'd like to bring up. We all have problems with jamming, that is, some of us do, in varying degrees. I think if any of you listen on WCARS which I had occasion to do recently (and I think they are performing a real service. They're doing a good thing.) you do find some nuts on the air. It's just unbelieveable what goes on. The question comes, "What do you do about this?"

Or take your local repeater where the guy that says foul language or belches or plays music and interferes with things, what do you do about this guy? What can you do? Naturally, you can call Mr. Landry (engineer-in-charge, FCC, San Francisco) and he'll empathize with you, and probably tell you there isn't much he can do about it. He doesn't have the staff to do it and sure he would if he could, but he's limited.

But what can you do about getting some evidence that you can use? Well, use in what way? First of all, use it criminally? Suppose you go to, instead of Mr. Landry, the United States attorney in San Francisco and you say, "Mr. United States attorney, I'm a radio amateur and I have evidence that these guys are violating the law. Here's my evidence. We've got field strength meter readings and we've taken triangulations and we've beat on the guy's door and he's answered the door."

Can you supplement this with tape recordings to show what your problem is? A question comes up, "Can it be done?" In other words, we have something in the Communications Act that we all heard about regarding the divulging of secret communication, a secrecy provision. Can we use recordings made of say, amateur interference? Even in a criminal prosecution? Maybe the FCC might be criminally prosecuting someone, which as we say the "interfered-with person" would like to see.

Or how about a civil action? You say, what civil action? Well, not so long ago the courts in California, as they have in many states, have developed a new thing. They call it a tort. A tort is where you sue for an injury to your mind or your body, as in a automobile case, but it also can be mental injury too. They call it intentional infliction of emotional distress. It's a new tort. That's an interesting thought. You mean to say that a jammer isn't causing you intentional infliction of emotional distress? I bet he is. I bet if went to court with it and you had the right proof, you could get a jury to give you a handsome sum of money against this guy, which might teach him one helluva lesson.

Well, I don't think necessarily we ought to do this and probably the best thing to do is go to the U.S. attorney or Mr. Landry and I think it can be handled that way, or it should be. But I'm saying that if you've got a good enough case, I'm willing to look over those facts. Could someone bring me a good enough case to where we can win it? I wouldn't want to lost it, because it's the kind of case that if you lost it you'd never live it down. So you've got to have a real cold case.

But if you had such a case and you had that proof, you had triangulations, field strength readings, you knocked on the door and the guy came out so he couldn't say his kid was doing it and you got tape recordings of it to show to the jury of "just look at this awful thing, look what this guy is doing," and you sue him for ten or 20,000 dollars with punitive damages cause it's a willful tort. I think you'd really twist his tail.

But let's not do it unless we really got that cold case, but can get that cold case. If we can't get help from Mr. Landry and if we can't get help from the U.S. attorney's office, you bring me the case and I'll handle it for nothing. I'll get in there—I'll just love to have this case.

So that brings up the question, what about tape recordings? In other words, this would be great evidence. Particularly if you go to civil suit asking for damages and you show what this idiot was doing. Maybe it was an emergency and you're calling about an automobile accident and this guy is ruining the communication.

If you can prove this was the guy doing it and you have 150 or 200 members of the club all say this guy was willfully inflicting emotional distress upon you and he would certainly fit in that category. I mean you could really worry him.

Well, what about the tape recording? That brings up the question, "What are you going to do?" I have a copy of a page out of the U.S. Code and so far as I have been able to establish, this is the section where they talk about secrecy of communication and not devulging the contents of it. It comes down to section 47 of the U.S. Code, subsection 605, the court goes on to say you can't use it to divulge any secret public communications either by wire or radio. When you look at the cases they cite about this, and there are a lot of cases. I've never seen the FCC hooked on this but the FBI has been caught where the court wouldn't let the FBI (usually it's wire-tap type things) use it in a federal prosecutionor even a state prosecution.

But the interesting part is after the Congress of the United States wrote

(*please turn to page 39*)

INTERNATIONAL FRIENDSHIP

Tomy Tominaga, JA4SOL and Ernie Daley, WN8QED

By Gil Baker, W5QPX

Little did Ernie Daley, WN8QED, and Lou Mide, WN8PSO, realize at the time of the QSO they would get a chance to meet a DX operator in person. The DXer being JA4SOL, Takumi "Tomy" Tominaga of Okoyoma, Japan.

Contact took place when Tomy was operating Maritime Mobile on board the Hosei Maru off of Mexico and on his way to Cleveland, OH.

Ernie and Lou gave their telephone numbers to Tomy.

The three got together. As time was limited on Tomy's part, they all whizzed around the area visiting local radio and electronics shops. Tomy picked up a matchbox to be used on the ship. The whirlwind tour wound up at Ernie Daley's shack for a quick look-see at the station where the QSO was made and a pot of "Joe".

Tim ran out and a mad dash back to the ship was made by all hands. Tomy wanted Lou and Ernie to see his radio shack and trying to get them aboard presented some difficulty at the customs gate. A note from the Hosei Maru's Captain cleared the matter up handily.

Once aboard, all fell to in hooking up the matchbox and long wire combo so as to be usable when the vessel got underway again. Suffice to say the Novice operators were a bit awed at the paraphenalia for sea going LF/HF communications. A visit to the radar room was thrown in for good measure.

Time for leaving port came all too quickly and in parting the three exchanged gifts. Lou and Ernie should be able to send CW a bit better now with their new "pump handles" and if sea serpents still lurk in the briny deep, Tomy is well supplied with snakebite remedy.

Tomy knew very little English and Ernie and Lou no Japanese whatsoever. But small matter — all being brother in kind everything resolved itself reasonably well.

A later QSO was logged between the three amigos on Tomy's way back home.

And so it goes — two more victims claimed by DX-itus.

EDITORIAL

(*continued from page 12*)

community, who is doing what for the betterment of it?

Why is it so very few will give of their "time and energy" to run licensing classes . . . possibly actually recruiting the type of people who would be a credit to amateur radio.

Again from the Balbo article, "Remember, as more dedicated, hard-working men become Lions, our International Association will be better able to meet the growing challenges of tomorrow." How many amateurs actively attempt to get other amateurs to join our "Association," the ARRL?

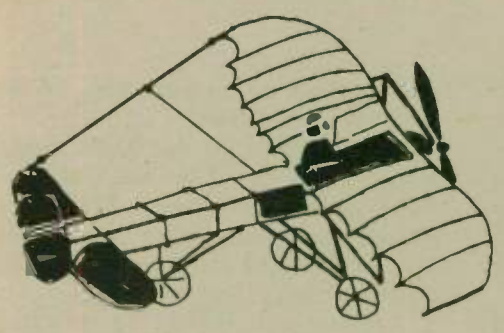
Looking through the Lions magazine was a joy. The publication is filled with excitement. The Lions sponsor a great many worthwhile and meaningful projects. What does amateur radio "sponsor?"

Are we anti-social? Is watching meter needles flop back and forth or traces wiggle on a scope the end of it?

Do we have goals? Do we recognize a responsibility to the new amateurs? Do we think about the development of amateur radio?

The question is . . . do we want to be in "isolation" . . . or do we involve ourselves in the life, welfare and personal relations of amateur radio?

We believe radio amateurs will have more rewards and personal satisfaction if they involve themselves in the "social" avenues of amateur radio.



AERONAUTICAL MOBILE

Vern Weiss, WA9VLK

Since **Worldradio News** began printing AERONAUTICAL MOBILE, a good amount of mail received has included suggestions for making a better airborne-ham operations.

Air mobile operating is by no means a new activity; but its marriage to some of the newer amatuer modes and popular bands has made it a whole new facet of our wonderful avocation. Just look around and see some of the new things today's amateurs have at their disposal. F'rinstance, two meter FM ... with convenient portable transceivers ... with rechargeable power sources ... and miniature antennas. Time once as when an amatuer had to install cumbersome, heavy equipment in his aircraft (which itself edged things close to the weight and balance safe-envelope).

He then had to make some kind of provisions for converting 28 volts to whatever. Then the antenna. Oh, the antenna! The smallest airplane a dipole for 160 would stretch atop might be two Lockheed Constellations ... in tandem! So, in conclusion, things have changed quite a bit and irregardless of some of the adverse things going on in Amateur Radio, I think we can all agree most has changed for the better.

With these changes, some readers have sent in suggestions for aeronautical mobile operation in today's skies on today's airwaves.

With the tremendous growth of VHF in lightplane flying, most suggestions involve VHF, but HF'ers should hear them out too.

Congestion on the many repeaters throughout our countryside is increasing almost daily. Please avoid using repeater input frequencies for simplex airmobile operation whenever possible. Of course, with an aircraft's altitude, it is difficult to judge just what kind of range one is getting. While 146.77778½ megacycles might be clear within a hundred miles, it is quite conceivable that at 10,000 feet the repeater in Flapcrack Corners might be hearing every word of your operation.

Mail is running about 50-50 on operating on repeaters while airborne. Some feel that with aircraft altitude, a repeater is not necessary. Others feel that an airplane is but another vehicle such as a car or train and if one wants to work his friends on a certain repeater there should be no objection. Let me know what you think!

Identify. Many have written that amateurs operating airmobile don't let everyone know what they're doing enough. Some call for a bit more fireworks and fanfare over airborne operation. The points being made here is that more stations will sit up straight when they hear "WA3XQR, aeronautical mobile 3,600 feet over Altoona, listening." Gulp. Wow, A real airplane!

Ah yes, the AERONAUTICAL MOBILE thing crops up again. My own response I've received favors the term AERONAUTICAL MOBILE as opposed to AIR MOBILE. In fact, about 2 to 1. Glen Byars, WØBNF of Kearney, Nebraska (who operates 40 meters with an Atlas 180 in a Bonanza) has come up with a good idea. He identifies, "WØBNF, **aircraft mobile** over Western Kansas." I like that one too. Either way, they are all legal.

Advertise. While QSO'ing, announce that you QSL. Even have a special airmobile QSL printed up! Let's give aerohamming some real class.

When operating while aloft, give frequent breaks for others to use the frequency. I personally do not favor QSY'ing all over the place, because many may want to desperately want to work you who only have one crystal. A courteous break once in a while will suffice and keep one and all happy.

When not actively seeking QSOs, monitor MIDCARS, WESTCARS or EASTCARS)7255 or 7258 kHz).

AERONAUTICAL MOBILE congratulates Keith Lamonica, W7DXX, on recently being awarded the National Pilot Association's Safe Pilot Certificate. W7DXX has flown nearly 2200 hours including time in his own Piper Cherokee.

In their February issue, **Flight Operations** magazine commended every amateur's favorite pilot, Barry Goldwater, K7UGA. Along with another pilot, Sen. Dale Milford of Texas, Sen. Goldwater was instrumental in defeating the burdensome aviation user-charge bill. Good men, those two.

From Mepkin Abbey at Moncks Corner, South Carolina, Rev. Benjamin "Chuck" Clark, WB4OBZ, writes a seemingly workable proposal. If a speaker from an amateur receiver could be installed in the envelope of a lighter-than-air balloon, Chuck feels additional lift could be gained from all the hot air. Is he wrong? Chuck's first call was W8UFD. That was in 1939, the same year he took his first FAA test. Since World War II, WB4OBZ has been a Monk in South Carolina and works mainly 80 through 15 meters. He would very much like to hear from anyone who has sailed balloons.

Does anyone have a schematic for the General Electric Personal-Plane Transmitter-Receiver Type AS-1B and its power supply? The transmitter is crystal fixed on 3105 kHz and the receiver tunes 200 thru 400 and 550 thru 1500 kHz. I am offering a reward for capture of the originals or a Xerox copy.

Walt Davis, WA5ODQ of San Diego, California advises AERONAUTICAL MOBILE that he frequents 80 through 10 meters and two meter FM from the air. Walt is active on numerous Search and Rescue drills and operations. Hopefully WA6ODQ will write us more on his aircraft mobile activities.

Last month, if you will remember, I lashed-forth with a lengthy exposition on reading. Well, I have another bit of perusing for you to do. Kenneth Bose has written a fascinating book called **Aviation Electronics**. This is one of those rare books that you can sit down and sink your teeth into or take in small several-page doses or use as just a reference book. The book details everything there is to know about air and ground aviation communications and navigational systems. Thinking of doing some aircraft radio repair? This book

(*please turn to page 19*)

Connie Owens, WA1NXR SSTV's Leading Lady,

By Bill DeWitt, W2DD

Connie Owens, WA1NXR, spent New Year's Eve, 1970, trying out her Technician license recieved that very day. Eleven months later she had a General Class License. With SSTV operation as an incentive, Connie worked hard and received her Advanced Class License in April of 1972! Now that's accomplishment PLUS! But Connie's interests are varied and her achievements are many.

Connie and Richard Owens own and operate the New England Janitorial Service based in Eliot, Maine. They have two children, Rickey, age 12, and Melissa, age 13. Connie does most of the bookwork for the business.

Upon completion of an amateur radio course at nearby Pease Air Force Base, Connie and Richard received their licenses. (His call is WA1NXS. Son Rickey, by the way, is WN1TOL.

Connie is a keen competitor. In a relatively short time on the air she has racked up an enviable list of awards: WAS-SSTV, No. 10; WAS-20M.-SSB; WAC-SSTV; 2nd in 73 Magazine SSTV Program Contest; 2nd in 1974 International SSTV Contest; Winner, First Dist. YLRL Anniversary Party, 1972, 1973.

She was Trustee and Licensee of WP1ORT, the first special call on SSTV at the time of the Portsmouth, H.H. 350th Anniversary celebration, and is presently Secretary-Treasurer of the Women Radio Operators of New England. During the past two years Connie has helped teach several code and theory classes and has given examinations to about two dozen beginners. Connie is indeed a busy, busy, gal!

The Owens are avid boating enthusiasts. In addition to boat inspections, they also do patrol work in their 23 foot cabin cruiser. Connie is a member of the U.S. Coast Guard Auxiliary and is Communications Officer of the local C.G. district. Ceramics and snowmobiling round out Connie's diversity of interests.

Worldradio News asked Connie for her ideas on improving SSTV. The essence of her answer was that we do not seem to take full advantage of the system's capability, that larger images (through scan conversion) will in time open up SSTV for educational use, and, Connie says, "While I appreciate the skill and knowledge involved in building keyboards, I sometimes get tired of seeing nothing but call signs." I gather that she would like to see more pictures of those far away places!

Connie Owens, WA1NXR

Connie professes not to be a builder but she has worked her way through a long list of Heathkits. She is giving serious consideration to building a slow to fast converter, a project with a lot of challenge!

How does a gal who is bringing up two children, keeping books for a business, doing Coast Guard work, et cetera, et cetera, find time to do her housework? Connie has a little sign that flashes an answer to her SSTV friends. It says, "My house is clean enough to be healthy, and dirty enough to be happy." Any other questions?

There's an old saying, "If you want to get a job done well, get a busy person to do it!" Connie, you are a DO-ER, and what you do, you do well!

The registration deadline for the 1975/1976 ARRL Repeater Directory is 1 April to permit production in time for summer distribution.

Only those repeaters that were registered in 1974 or are re-registered by 1 April 1975 will be included in the new edition.

Special cards are available from ARRL Headquarters for easy recording to required information for licensed repeaters. It is requested that an s.a.s.e. be sent with requests for the repeater registration cards.

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Your interest in amateur radio is growing. You're discovering just how very fascinating it can be. You are "doing something with it." **Worldradio** is reporting on what you do and growing with you.

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To get more pleasure from amateur radio, please see page 9.

10th Annual Burbank Hamfest

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

aeronautical mobile

(*continued from page 17*)

advises the potential avionics technician what avenues he must take before it can be done; and then how to do it! **Aviation Electronics** had to be written for amateur radio operators.

Don Simonsen, K7AEJ/K7GHZ, of Centralia, Washington has been seen snooping around many bookstores and libraries in the Pacific Northwest. He's also been seen flying his Super Cub (lucky dog) over that gorgeous terrain. Don has been having trouble locating the book **Crack-Up** I spoke about last month. Any books I write about in this column, in fact just about any book dealing with aviation and aviation-related topics, is available from Sporty's Pilot Shop, Clermont County Airport, Batavia, Ohio, 45103. K7AEJ/K7GHZ is currently building a Mini-Coupe one seater, in which he plans to install his Regency RH2-B two meter transceiver. Send us a picture when it's all done, Don. P.S. **Flying** magazine printed an excellent article on heat and radio equipment. So much for his month's athenaeum report.

Once again we turn final. Your QSLs, letters and radiograms are so very welcome. We appreciate knowing what you're doing, where and to what extent. Write Post Office Box 187, Bradley, Illinois 60915. Or if you're in the Northeast Illinois area look for me on 34/94. Better yet, if flying in Northeast Illinois near Kankakee, tune in 122.8 and ask if "Crash" is in the pattern. If you land at Greater Kankakee Airport, I'll be the one drinking Vendo-matic chicken soup and borrowing quarters.

•

On a number of occasions I have wondered why there was not a set-up in the wealthiest, friendliest, and most hammingly populated (until the JA's passed us recently) nation in the world! I know myself while in Britain I could have given much to visit with a G and talk over my favorite hobby as well as get first-hand insight into life in his country.

At any rate, I would like to be counted in on an organization that would host foreign hams. A fee to get the organization going seems reasonable and as president of a small local radio club, I am sure others would be interested too.

My QTH is 24 miles from Interstate 80 and less than an hour's car ride to Des Moines. I'm sure I could set up an interesting itinerary for this area, or just let the "tuckered" fellow/gal (?) rest for a while. My wife and I own our home, live in a town of 7,000-plus and have a nice guest room. Both of us teach in senior high school. We love to travel!

Bill Grim, WØMHK
1005 West Hobart St.
Knoxville, IA 50138

The Nobility Net

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

Among our many aims — to make available to parents of crippled children, who are unable to afford the high cost of medical aid, knowledge of how to secure these surgical services free of charge; aid in providing transportation for patients; setting up of blood banks and creating good relationships between Shrinedom and the public who are not aware of this great philanthropy.

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

(de International Coordinator, W3FQT)

actual size

Get your ATLAS at M-TRON

GENERAL SPECIFICATIONS

Atlas-210, Frequency Coverage With Internal VFO: 3700-4050, 7000-7350, 14,000-14,350, 21,100-21,450 and 28,400-29,100 kHz.

Atlas-215, Frequency Coverage With Internal VFO: 1800-2000, 3700-4050, 7000-7350, 14,000-14,350 and 21,100-21,450 kHz.

NOTE that the 80 and 15 meter bands can be easily owner adjusted to cover any 350 kHz portion of the band and that 10 meters can be adjusted to cover any 700 kHz portion.

Frequency Readout: Dial scale calibrated in 5 kHz increments on all bands except 10 meters, where increments are 10 kHz. Tuning knob skirt provides 1 kHz increments on all bands except 10 meters, where increments are 2 kHz.

Frequency Ranges When Using Model 10X Crystal Oscillator Accessory: 10 Crystal positions permit fixed channel operation as follows:
1800-2050 kHz (Atlas-215 only), 3400-4300, 7000-7600, 13,900-14,600, 21,000-21,450 and 28,000-29,700 kc (Atlas-210 only).

Special Mars Models, Atlas-210M and Alas-215: These models offer extended frequency range when crystal controlled by the model 10X crystal oscillator accessory, as follows:
1800-2400 kHz (Atlas 215M only), 3300-4600, 7000-8000, 13,900-14,900, 20,600-21,450, 27,500-30,000 kHz (Atlas-210M only).
Notice that the internal VFO ranges in the 210M and 215M are identical to the standard 210 and 215. The extended frequency ranges are provided only by use of the 10X crystal oscillator.

Circuit Design: Single conversion, 5520 kHz I.F.

Finish: Vinyl Covered Steel. Durable and scratch resistant. Black.

Dimensions: 9½ in. (24.1 cm) wide, 3½ in. (8.9 cm) high, 9½ in. (24.1 cm) deep, overall.

Weight: 6 lbs. 14 oz. (3 kg) net. 8 lbs. 6 oz. (3.7 kg) Shipping weight.

Frequency Control: Highly stable VFO, common to both Receive and Transmit modes. Tuning dial calibrated in 5 kHz increments with easy interpolation to kHz. Tuning rate is 15 kHz per revolution.

External Frequency Control: Rear socket provides for plug-in of external VFO or crystal oscillator for separate control of transmit and receive frequencies, or for network and MARS operation.

All Solid State: Includes 4 I.C.'s, 18 transistors, 32 diodes.

Modes of Operation: SSB (selectable USB or LSB), CW with offset frequency in transmit mode.

Modular Construction: Includes plug-in circuit boards for ease of service and maintenance.

Plug-in Design: Rear connectors are designed so the transceiver plugs into the Mobile Mounting Bracket, or into the AR-117 desk top power supply, making the transfer or removal a simple operation. Transceiver may be secured to the Mobile Mount, if desired. All connectors are standard: SO-239 antenna jack, ¼ in. phone jacks for Mic., CW key, External speaker or headphones and linear amplifier control.

Power Supply Requirements: Operates directly from 12-14 volt D.C source, negative ground (standard automotive electrical system). Draws 300 to 500 ma. in receive mode, 16 amps peak in transmit mode. (Atlas models AR-117 and AR-230 desk top power supplies are available for AC operation.)

Front Controls: Tuning Dial, Dial Set, Function Switch, Band Switch, A.F. Gain, R.F. Gain, Mic. Gain, Sideband Selector, Calibrator Switch, Dial Light Dimmer.

TRANSMITTER SPECIFICATIONS:

Circuit: Broadband design eliminates transmitter tuning. Single conversion from I.F. to output frequency. Includes ALC and infinite VSWR protection.

Frequency Control: Internal VFO automatically provides transmission on exactly the same frequency as is being received. Rear socket provides for plug-in of 2nd VFO or crystal oscillator for separate control of transmit and receive frequencies, or for network and MARS operation.

Power Rating: 200 Watts P.E.P. Input and CW input on 160, 80, 40, 20 and 15 meters. 120 Watts on 10 meters. (50 ohm resistive load 13.6 volt D.C. supply.

Power Output: 80 watts minimum P.E.P. on 160 through 15 meters, 40 watts minimum P.E.P. on 10 meters. (100 watts typical on 160 through 15. 50 watts typical on 10 meters.)

Emission: SSB (selectable USB or LSB), and CW.

Unwanted Sideband Suppression: Better than 60 db at 1000 cycles.

Carrier Suppression: More than 50 db below peak power.

Intermodulation Distortion: Approximately 30 db below power.

Spurious and Image Output: More than 40 db below rated power.

Harmonic Output: More than 35 db below rated power.

CW Keying: Manual send-receive. Semi-break-in when VOX accessory is installed in AR-117 power supply.

Transmit Control: Press-to-talk with mic. button, or manual transmit with panel function switch. Automatic voice control when VOX accessory is installed in AR-117 power supply.

Microphone: Dynamic or Crystal. Plug requirement: Standard phone plug, 3 circuit, ¼ in. diam.

Audio Fidelity: 300-3000 Hz, plus or minus 3 db.

RECEIVER SPECIFICATIONS:

Super Selectivity: A new 8 pole ladder design crystal filter provides unequalled selectivity. Frequency: 5520 kHz. Bandwidth at 6 db: 2.7 kHz for audio bandpass of 300 to 3000 Hz. Bandwidth at 60 db down is 4.3 kHz. Bandwidth at 120 db is only 9.2 kHz!! Ultimate rejection is greater than 130 db!!

Circuit Design: No preamplification of signals. After passing through tuned circuits the signals are coupled into a low noise mixer using a double balanced diode ring. This provices exceptional immunity to overload and cross modulation, outperforming any receiver with R.F. amplifier.

Sensitivity: Requires less than 0.3 microvolts for 10 db signal-plus-noise to noise ratio. (Typically 0.2 u.v.)

Image Rejection: Better than 60 db.

Internal Spurious: Less than equivalent 1 u.v. signal.

AGC Characteristics: Audio output constant within 4 db with signal variation from 5 u.v. to more than 3 volts.

Overall Gain: Requires less than 1 u.v. signal for 0.5 watts audio output. (CW carrier.)

Audio Fidelity: 300-3000 Hz, plus or minus 3 db.

Audio Power: 2 watts to a 3 ohm speaker, less than 10 per cent distortion.

Internal Speaker: 3 inch, 3 ohm, .68 oz. magnet. Rear jack permits plug-in of headphones or external speaker. When Transceiver is plugged into the AR-117 power supply, front facing 3 x 5 speaker is automatically connected.

Meter: Reads S units from 1 to 9, plus 10 to 50 db.

Calibrator: Provides 100 kc check points for accurate dial setting.

Panel Meter: Reads output amplifier collector current, 0-16 amps.

Jack: Provides for Linear Amplifier Keying and ALC control.

FM FM FM FM FM FM FM FM

VHF wattmeter/SWR Bridge/Field Strength Meter. 25 and 50 watt scales - accurate VSWR readings- Dash/Desk bracket (included) allows mounting at any angle. Manufactured by Antenna Specialists, Model ASM/R-100. A great tool for only $69.95

Omega-T Noise Bridge. Learn the exact resonant frequency and impedance of your antenna. Model TE-702, works 1 to 300 MHz $39.95

KLM 2 meter FM amplifiers in stock

2 W in/12 W out $44.95
10 W in/ 140 W out $189.95

KLM Antennas

144-148 7 el $23.79
144-148 9 el $34.95
144-148 11 el $38.79
420-470 14 el $21.55
baluns $13.95

Cushcraft Antennas

AR-2 2 M Ringo $16.50
AR-450 Ringo $16.50
A-144 11el $23.50
(for low end DXer)

Hy-Gain Antennas

2 M ground plane $19.95
2M 3 el yagi 9 db $17.95
2M 8 el 14.5 db $37.00

Larsen VHF Antennas

HY-150 $22.50
PO-150 $24.50
LM-150 $22.50
LMK-585 mag mount $12.50
(to be used with LM-150. You will have to see the Larsen Mag Mount to see how great it is)
AMB $3.85

Rubber Duckies

HM4 -Motorola HT type $6.60
HM5 - PL 259 $6.60

REGULATED POWER SUPPLIES

NPC 12V at 4A reg. $44.95, sale $39.95
NPC 12V at 8A reg. $72.00, sale $59.95

Viking Hybrid Phone Patch, go semi-auto-patch for only $36.50. Drop to low end with Heath HW-17A 2 M AM mint condx $59.95

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KE Electronics-KE/SQ Autokeyer-Iambic squeeze key operation, dot memory, dash memory, dot dash insertion, keyer time base, built in paddles, sidetone, regulated p.s. reed relay for cathode or grid block keying $44.95

KE Electronics-KE 512 Memokeyer same as KE-SQ plus two message memories that store 256 bits each, approx. 22 code characters stored in each memory $99. Don't let the low prices of these keyers fool you, they are top-notch.

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TenTec: Argonaut, Triton II, 405 amp, 200 VFO, 620 and 640 keyers, 210 ps, 601 and 602 paddles, 205 ant. tuner.

Drake: R4C, T4XC, AC4, DC4, MN4, MN 2000, WV4, W4, SPR 4, TR-22C, 250, 500, 1500 Hz filters

Here's M-TRON's used specials:
Standard SR-826M (2 M) w/ AC p.s., spkr, mike, DC line filter, 16/76, 76/76, 94/94, 34/94, hi-lo pwr, with manual $229.00 -- Pickering CW Keyboard, built in monitor, w/manual, $189.00 gud fist the easy way -- Drake SW4A SW rcvr. $249--Heath DX-60 Novice xmtr, $69.95--WRL Duobander 80/40 xcvr, $169.95--Drake 2NT Novice xmtr, $99.00 --Heath HS-24 spkr $9.95

Other super specials: Hammarlund HQ-180C w/ spkr, mint, not a scratch, $339--FOUR X UR POWR Magnum 6 speech box has 6 db gain, for Heath-100/101/102/400/401, used $99--Hallicrafters HT-4 Novice xmtr $59.00-

M-TRON Novice Counseling Service, no obligation.

HF HF HF HF HF HF HF HF HF

Hy-Gain Antennas in stock

18V 80-10 vertical $33
14AVQ/WB 40-10 $67
18AVT/WB 80-10 $97
18 HT Hy-Tower 80-10 $239.95
TH3 Junior tri-band beam $139.95
204BA 4 el 20 meter $179.95
BN-86 balun $15.95
75 M mobile resonator $24.95
40 M mobile resonator $21.95
20 M mobile resonator $18.95
15 M mobile resonator $16.95
10 M mobile resonator $14.95

Set up your antenna to the gnat's eyebrow with the Omega-T antenna noise bridge. TE7-01 1-100 MHz tells you resonant frequency and impedance of antenna. $29.95

Then find out what a good job you did by seeing the low SWR with your Midland SWR Bridge, $15.95

You will be working so much DX you will have to use GMT time. We have a beautiful 24-hour electric wall clock w/sweep hand, 12-inch diameter $24.20

Keep peace in the neighborhood with the Drake TV-1000 Low Pass Filter $18.75, cheap for what it does. Keep peace in your own house with the High Pass Filter, hang it on the XYLs TV set. Drake TV-300 $6.95

KE Trap Dipole 40/80 w/ balun, max. length 106 feet, all for only $35.
KE Ultra-Bal-2000, 2KW PEP balun, 1-1 or 4-1 (select one) $9.95

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

DX DIGEST Gary Stilwell, W6NJU

The February meeting of the Northern California DX Club featured a local radio personality speaking on Amateur Radio and its public image. During the discussion, the speaker mentioned that in commercial radio you really have only one way communication and you do not immediately hear from those on the other end. So it is in writing a column such as this that you continue writing and wonder if anybody out there is reading. I would like to take this opportunity to thank all of you who have written a letter or note letting us know your thoughts regarding the column.

This is a good time to remind you that this column is here to serve you. Any comments you might like to send in on the subject of DX will be considered. We also have space available should you like to publicize a club event or perhaps share with us your club history.

Last month we mentioned the ARRL DX tests but left out the CQ WPX Contest. Don't forget that the CQ Worldwide WPX/SSB contest will be held March 29 and 30, 1975. There should be some rare and unique prefix activity as well as a good supply of DX and WPX-additions.

After many years of editing the Southern California DX bulletin, Jay Holliday, W6EJJ will be relinquishing the bulletin chores due to his new activities as Vice Director of the Southwestern division. The new bulletin editor will be Harvey Hetland, WA6KZI.

This certainly has been a busy month on FCC matters. What with the new release regarding restructuring it also saw releases on the environmental protection act, reduction of license fees and a request from the Office of Telecommunications Policy in the White House requesting the FCC to act in the matter of Class E CB in the 220 MHz band. Effective March 1, 1975, new license fees will now be $4 for new or renewed Amateur license and $3 for modifications. The fee for special call-signs will remain at $25. If your antenna is over 300 foot high or you have a dish more than 30 feet in diameter or you are located in a wilderness area, wildlife preserve or national historical area, you will have new procedures to go through in obtaining your license. If you don't qualify as above, you should make a statement on your license application such as "this is not a major application as defined in Section 1.1305 of the Commissions Rules."

Also, "Participation in Preparations for the 1979 World Administration Radio Conference" was the subject of an open meeting hosted by the FCC on Feb. 21. Purpose of the meeting was to brief interested parties about the FCC working organization and preliminary preparations for this important 1979 Conference.

Spratly

Maurice, VS5MC has been unable to secure a boat for the trip to Spratly. The trip has been postponed until about April 14, at which time the boat might be available.

Equatorial Guinea

Abo, TR8BJ is trying to get a 3C license. If it comes through, he will make the trip some time after Easter.

St. Brandon

Alex, 3B8DA will be going to St. Brandon this spring to man the weather station there. The gear is heavy and some question as to being able to take the equipment.

Upper Volta

Art, W1AM, son will be going to Quagadougou shortly. A number of schedules will be made in March and April. If interested, drop an SASE to W1AM and he will advise when XT2AA will be scheduled.

QSL Info

C5AM to K3GJD, CT2AK to W3HNK, EL2FT to WA3NGS, KX6BB to K3NEZ, PZ5FB to W2FCR, TJ1AD to K4QKW, VP2A to W5NOP, VP20M to WA1ABV, VP2GRN to W4YHB, VP2KL to WA1ABV, VP2SAH to WB2AMO, XV5AA to W7PHO, XV5AB to W7PHO, 8F1J to XE1J.

DX Advisory Committee

The only item now left over for the DX Advisory Committee concerns DXCC rule number 9. Rule 9 states that "All stations must be contacted from the same call area, where such areas exist or from the same country in the cases where there are no call areas.

One exception is allowed to this rule: where a station is moved from one call area to another, or from one country to another, all contacts must be made from within a radius of 150 miles of the initial location."

I suppose if you have never moved you have no interest in Rule 9. However, if you have moved and been effected and lost your DXCC credits because of your move, Rule 9 is very important. A station for instance, can move from San Ysridro, California to Eureka, California a distance of some 800 miles. That station is able to retain DXCC credits because he stayed within the W6 call area. That same station in San Ysridro, California, moves 800 miles to the East and then ends up in Arizona. Since he is now in the W7 area, he loses his DXCC credits and must start anew.

Those affected, and I'm sure those not affected, would agree that the rule does

not appear to be equal to all. There what change in the rule can be made to be fair and equitable. Some have suggested doing away with mileage requirements and preserving DXCC credits as long as one stays within the same country. Others have suggested why even that difference. Lets make it continental boundries; so therefore a station could move anywhere within North America and retain DXCC credits. Comments and interest in charge in Rule 9 seems to come from those who have moved and been affected by the rule. Don't forget, even if you haven't moved, to let the committee know how you feel or a small number of people will be deciding the issue when you might feel the location charge has an important bearing on the quality of DXCC.

The DX Advisory Committee is interested in any comments you desire to make on this subject and is particularly interested in specific solutions to the problem. Your comments may be sent to the DX Advisory Committee, c/o American Radio Relay League, 225 Main St., Newington, CT 06111.

Contest Advisory Committee

The ARRL Contest Advisory Committee has divided itself into subcommittees responsible for recommending changes to various operating activities. Members of the CAC responsible for specific activities include: W1BGD, VHF contests; WA2BLV, Novice Roundup; W3BQV, Field Day; K4BAI, Sweepstakes; W5RUB, QSO Parties; W6PAA, CD parties; K8HLR, DX Contest; W9LT, 10 Meter Contest; WA0CVS, 1976 200th Anniversary contest; and VE7CC, 160 Meter Contest.

Japanese Get "New" 75 Meter Band

Effective Feb. 17, 1975, JA stations will be able to operate phone in the 3793-3802 KHz slot.

Here and There

The National Bureau of Standards is now conducting a survey of user requirements so they can determine what services they can curtail as an energy savings device. If you have any thoughts on the idea you can ask for the National Bureau of Standards Energy Conservation Survey questionaire by writing the United States Department of Commerce, National Bureau of Standards, Time and Frequency Division, Boulder, CO 80302.

It seems anymore that getting to a rarer location and operating is only half the battle. It seems everybody runs into the same problem when they return home in getting QSL cards printed to resolve the great barrage of those desiring confirmations. A note from W5QPX indicates that QSL's for his operations at YS1WPE, WN4IN, YN4IM/3 and W5QPX/PG4 are finally in the mails. Gil indicates only cards received will be answered.

In a discussion with Don Bostrom, K6YFZ, Don indicated problems getting QSL's for operation at FWØ and FKØ. Don would expect the QSL's shortly. I understand from Don that he, WB6LTJ and K6RRIR spent several days at New Caledonia and were able to meet many of the hams there in Noumea. Raoul, FK8AU and Felix, FK8AC were a great help in making arrangements for licensing.

As for YJ8GS QSLs from my trip to New Herbrites, again the printer has not delivered and it appears cards will not go out until March. As ye old editor of **Worldradio** is printing the QSL cards, you can all drop Armond a note as to your desire to get YJ8 confirmed.

Applications for the new DXCC CW Award which started Jan. 1, 1975 will be accepted beginning June 1, 1975.

A new fee schedule for all DXCC awards will also go into effect on June 1, 1975. New applications for DXCC will be $10. Each subsequent submission for endorsement will cost $2 plus postage. These charges will apply to everyone. In addition, however, non ARRL member applicants in Canada, the United States or possessions must include an additional service charge of $5 for each new application and $2 additional service charge for each endorsement. The application charge for Five Band DXCC will be $20.

Fred Capossela, W2IWC/6 has taken over the CQ DX Contest and the Contest Committee. Frank Anazalone, W1WY will continue as Editor and Contest Chairman for CQ. Communications can be directed to the CQ Contest Committee, **CQ Magazine**, 14 Vanderventer Ave., Port Washington, NY 11050.

Thanks for information to West Coast DX Bulletin, Long Island DX Association, HR Report and the National Contest Journal.

Think of a DX friend of yours. Wouldn't **Worldradio** make a nice international goodwill gift for your favorite overseas friend? The price for overseas gift subscriptions is just the same as domestic. With a few more subscribers we'll be bringing you even more news and features.

Ron, WB6LTJ, who operated as FWØDX and FKØDX.

International DX Convention

Mark on your calendar the 26th edition of the International DX Convention, Fresno, Calif., April 19 and 20 at the Hilton Hotel.

To pre-register $19 to Don Schliesser, W6MAV, 1151 Ivy Court, El Cerrito, CA 94530. (Make check out to Northern California DX Club). A packed program with featured speaker Fred Laun, LU5HFI.

REPEATERS

General operating procedures for Amateur Radio Repeaters

published by: The Ohio Area Repeater Council

Purpose

A. The purpose of this GOP is to provide all concerned with uniform and efficient methods for use in the conduct of the operational activities pertaining to Amateur Radio repeaters.

Scope

A. Procedures and guide lines designed to cover every conceivable situation are not feasible, therefore, these instructions were developed to permit necessary flexibility while preserving basic good operating practices. Should prescribed procedures fail to satisfy a specific requirement, common sense and initiative should prevail.

Purpose of the repeater

A. An Amateur Radio repeater is designed to extend the range and coverage of the individual amateur radio operators equipment within his (her) given community. Because many mobile and hand held units are normally operating under five watts output, the repeater extends their range and coverage and is very beneficial to the conduct of Amateur Radio communications.

Hours of operation

A. Each Repeater may govern their own hours of operation in keeping with the rules and regulations of the Federal Communications Commission. Because each repeater is required to have a control operator on duty during all times the repeater is in operation, it is suggested operation between the hours of 2300 and 0600 local time be kept at a minimum and only necessary communications be conducted during this time period.

Frequencies of operation

A. Amateur Radio Repeaters operate on frequencies requested by the Station Trustee and/or President of the Club or Association and coordinated by local Area Repeater Councils or frequency coordinators. This procedure is used in an effort to find an interference-free frequency pair. The Area Repeater Councils or frequency coordinators work diligently with all interested persons to prevent unnecessary adjacent channel or same channel (from another location) interference.

B. As a guide to the Area Repeater Councils there are national standards which have become the basis of frequency allocation. The following chart illustrates the frequencies of two meters normally used as frequency pairs by repeaters for the convenience of all amateurs, especially for those who travel.

146-147 MHz.		147-148 MHz.	
input	output	input	output
146.01-146.61		147.60-147.00 (D)	
146.04-146.64		147.63-147.03	
147.07-146.67		147.66-147.06	
146.10-146.70(A)		147.69-147.09	
146.13-146.73		147.72-147.12	
146.16-146.76		147.75-147.15	
146.19-146.79		147.78-147.18	
146.22-146.82		147.81-147.21	
146.25-146.85		147.84-147.24	
146.28-146.88		147.87-147.27	
146.31-146.91		147.90-147.30(D)	
146.34-146.94		147.93-147.33	
146.37-146.97		147.96-147.36	
		147.99-147.39	

simplex frequencies

146.40	147.42
146.43	147.45
146.46(C)	147.48
146.49	147.51
146.52(B)	147.54
146.55	147.57
146.58	

A. National AFSK Calling & Working Frequency
B. National Simplex Calling Frequency
C. Frequency set aside for A.R.E.C. Emergencies and Nets.
D. Reserved for Civil Defense.

Operating procedures — repeater

A. Intrinsic with the repeater is the value received when used for emergency and public service use. A normal transmission should be as **short as possible** (60 seconds or less) expressing single thoughts during each transmission. **Pause several seconds** between transmissions to permit break-in stations to access the repeater. These two basic procedures will naturally permit emergency or priority traffic and time to answer on auto-patch call.

B. Base stations should be cognizant of the possibility of accessing more than one repeater at a time. Use of a repeater from a base station should be kept to a minimum. Direct operation on a simplex frequency should be conducted whenever possible. Two base stations should seldom have to use a repeater. Mobile and/or hand held units should also attempt to communicate directly whenever possible. By communicating directly on a simplex frequency the repeater is available for stations not able to communicate directly, emergency communications or for auto-patch calls.

C. Repeated transmitter keying, unidentified transmissions, transmitting music or strange noises, etc., constitute illegal operation and puts the station license in jeopardy. Infractions will cause the repeater to be shut down until such operations cease.

D. Watch your language and subject matter. The repeater covers a lot of ground and a lot of people listen to it. Try to use language you would use with someone whom you wished to impress. Restrict discussions and opinions that might be disturbing to others to simplex operation, or better yet land-line or eye-ball contacts.

E. Certain conditions, such as heavy traffic, bad weather or an emergency of any kind could lead to someone needing the repeater for emergency traffic. Be particularly careful to keep transmissions shorter than 60 seconds) and open periods between transmissions longer than normal during these periods. If someone with an emergency mission (A.R.E.C., Civil Defense, auto-patch, etc.) comes on the repeater, take your lead from him. Do call in, identify yourself and give your locations if you can continue to monitor the frequency. You may be just the station needed to get a specific report on the problem at hand.

F. Common practices while operating through a repeater are required also:

1. Identify your station when coming on and leaving a repeater and at intervals as perscribed by the Federal Communications Commission.
2. When accessing a repeater, state your intention, e.i., CQ, Requesting road directions, Emergency, Request Auto-Patch etc.
3. If you are testing, say so and try to keep your tests as short as possible.
4. Do not feel you have to continue your QSO until one of you arrives at a destination. If you have exchanged your information and find words hard to come by, then it is time to QUIT.

Operating procedures — auto-patch

A. Operation of a telephone through an Amateur Radio repeater is a privilege extended to members of a repeater group or club by the organization, telephone company and the FCC. Even though a member pays a fee to maintain the system, this fee does not give that person the right to do as he pleases. He (she) must abide by the rules of the Amateur Service, Part 97 and the club rules. Violation of these rules will result in the termination of the auto-patch, prohibition of further use, violation reported to the Federal Communications Commission or all three.

B. The following rules are established to preserve the phone-patch aspect of Amateur Radio. Although the following may appear stronger than what appears in the rules and regulations of the Federal Communications Commission, they will automaticallly have a built in buffer area or latitude for adjustment.

C. Keep in mind, the repeater station trustee has the responsibility and the final word in connection with the conduct on that repeater. The following rules will keep the Repeater and Auto-Patch in

(*please turn to page 39*)