THE WORLDRADIO NEWS

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New FCC Amateur Chief: K3BNS

"The first order of business is to clear up the backlog in license applications, dockets, proposed rule makings and petitions from the amateurs."

Those were the words of the new Chief of the FCC's Amateur and Citizens Division, John Johnston, K3BNS, in a telephone conversation with **Worldradio** on 1 October.

Johnston, referring to the time it is taking to process applications (up to three months) said, "We've brought in experts in systems and procedures and expect shortly to have a new and improved system."

He also said, "De-regulation is the word of the hour." Johnston told that at the FCC the Amateur Radio Service has the reputation of being the most successful radio service in the areas of self-policing, self-enforcement and the effectiveness of peer pressure. Because of that he feels that many of the restrictive rules and regulations should be relaxed.

While declining to comment on what the first steps would be, he did say that right now nothing is being excluded from the areas the FCC is studying for relaxation.

Johnston will be appearing at the ARRL Midwest Division Convention on 18 October and the ARRL New England Division Convention on 1 November. At those gatherings he will be inviting comments.

The 48-year-old Johnston is himself an Extra class amateur. His operating interests include DXing, contests, and he intends to be in the upcoming Sweepstakes. He also likes RTTY and antenna work. He's a member of the Frankford and the Potomac Valley Radio Clubs. Club work was a great interest of his and he held many offices. He admits, though, that after going to work for the Commission his club activities have been cut back. He put it this way, "Either someone wouldn't say what he wanted to say about the FCC, because I was there, or, because I was there, that's all they would want to talk about. Either way it seemed my presence affected the meeting in a way I wouldn't want."

A charter life member of the ARRL, he said that he thought the survey the League sent out was very significant. Johnston told us he thought amateurs spend too much time looking at the past and we should instead look towards the future. He feels Docket 20282

(*please turn to page 10*)

Resolution

Omaha City Council
Omaha/Douglas Civic Center
Omaha, Nebraska 68102

June 24, 1975

RESOLVED BY THE CITY COUNCIL OF THE CITY OF OMAHA:

WHEREAS, on May 6, 1975, a portion of the City of Omaha suffered a most destructive tornado and sustained damage unsurpassed in the history of this City or any other city; and,

WHEREAS, the Mayor and the City Council of the City of Omaha declared a state of emergency and called upon individuals, businesses, organizations and outside agencies to help in the City's disastrous hour of need; and,

WHEREAS, response thereto reflected a cooperative spirit unheralded yet exceeding even the most optimistic hope, and was as momentous as the task was prodigious; and,

WHEREAS, the assistance given was a tremendous community effort, making it impossible to name each participant.

Now, therefore, be it resolved by the City Council of the City of Omaha:

THAT, the City Council of the City of Omaha together with Mayor Zorinsky express their gratitude, and convey heartfelt thanks to those concerned citizens who came to the aid and comfort of Omaha's stricken residents. Their uncompromising dedication, devotion, fidelity and industry in this effort; their compassion and capacity for understanding; their benevolence, cooperation and distinguished performance exemplifies the highest and best attributes of all men and women and merit our highest commendation.

BE IT FURTHER RESOLVED: THAT, a copy of this Resolution be furnished to Ak-sar-ben Radio Club, Inc., as a memorial of that service.

—*Amateur Radio News Service Bulletin*

Operating specially licensed radio station WW9WWW are Art Pahr, WA9UEK, Secretary; Chris Bauer, W9NVJ, President; Marv Burtz, W9MYG, Activities Manager; and George Menart, K9YXA, Vice-President [at the microphone]; of the Sheboygan County DX Association.

Cheese capital amateurs say 'We like it here'

Steve Lund

"This is Whiskey Whiskey Nine Whiskey Whiskey Whiskey in Plymouth, WI. 73 to you from Wonderful Wisconsin Week. We like it here."

That was the message being broadcast practically all around the world the week of 15 September from Art Pahr's (WA9UEK) garage at 526 Clifford St. in Plymouth, where a group of amateur radio operators were promoting the state of Wisconsin via a specially licensed radio station, WW9WWW.

The Sheboygan County DXers who transmitted from Pahr's garage didn't send out too many 88's, but they did send a lot of messages about the state of Wisconsin to places as far away as Africa and the Argentine Islands, which are actually in Anarctica.

On behalf of the Sheboygan County DX Association, Pahr applied for and received a special one week license to send messages promoting Wisconsin during Wonderful Wisconsin Week, and by Tuesday evening of that week they had made 300 contacts. They hoped to make 1,000 before their license expired at the end of the week.

Tuesday, 16 September, at Pahr's radio station located in his garage, Art was talking to someone named Raoul in Santiago, Chile.

"The name is Art, America Radio Tokyo," said Pahr into the microphone. The other end of the conversation was coming in with a lot of static and Pahr put on the headphones.

A moment later he was talking into the microphone again. "Nice to contact you in Santiago. All the best to you from Wonderful Wisconsin Week. We like it here."

Pahr and the others at the station (George Menart, K9YXA; Chris Bauer, W9NVJ; and Marv Bartz, W9MYG), all of Sheboygan, have sent the "We like it here" message to Ghana and other countries in Africa, Brazil, Paraguay, Chile, Canada, Venezuela, and probably dozens more by the end of the week. Many more contacts were made with operators in the United States.

"Nobody ever picked up the ball for Wonderful Wisconsin Week in Amateur Radio before," said Menart, explaining their efforts.

Also, as Pahr pointed out, "We've been having a whole lot of fun with it."

Doing public interest projects like this one is part of the experience of being an amateur radio operator. There have been times when amateurs are the only communications links with disaster stricken areas, and there are many examples of situations where they have kept open vital lines of communications when all commercial lines were down.

The amateurs have to do things like that and, when there are no emergencies or disasters around, do other public service duties to justify their use of the airwaves.

Airwaves are limited and there are plenty of commercial enterprises who would like to use the frequencies the amateurs use.

(*please turn to page 12*)

China OK

October 3, 1975

In a Public Notice issued on April 10, 1974, the Commission stated that communications between its amateur licensees and any station or stations situated in or over the territory of the People's Republic of China would not be permitted.

Effective immediately, the ban on such communications is herewith terminated, and all U.S. amateur radio operators are advised that communications with amateurs in the People's Republic of China are permissible under the provisions of Part 97 of the Rules.

DOC GMELIN W6ZRJ
001584 0576
10835 WILLOWBROOK WAY
CUPERTINO CA 95014

Gulf Coast Amateur Radio Club member George, WB4TGN, handles the traffic in a recent West Pasco County Red Cross hurricane shelter drill. They are getting set for hurricane season. Are you? [Submitted to Florida Skip by John Kohler, WA4WBM. Photo by Dan Jenkins, WB4TZR.]

License tags for MARS members

Up until last month it was impossible for an Army, Navy or Air Force MARS member to obtain his license tag in Florida with his MARS call sign on it.

All good things come to him who works for it. This is exactly what Art Granthum, W4MBJ, (AFW4-MBJ) of Jacksonville did. With the help of Representative Hazouri, Art was able to get HB-374 amended to allow all MARS members to apply for an auto tag (like the Florida amateurs) with his or her MARS call sign thereon, for only one additional dollar.

Here is how HB-374 reads, in part . . . Section 1. Subsection (1) of section 320.083, F.S., is amended to read: 320-083, amateur radio operators; special tags; fee. — (1) Owners of motor vehicles who are residents of the state, and who hold an unrevoked and unexpired official Amateur Radio station license issued by the Federal Communications Commission, upon application, accompanied by proof of ownership of such Amateur Radio station license, complying with the state motor vehicle laws relating to registration and licensing of motor vehicles, and upon the payment of the regular license fee for tags, as prescribed under s. 320.08, and the payment of an additional fee of $1.00, shall be issued a license plate, as prescribed by s. 320.06, for private passenger cars, upon which, in lieu of the numbers as prescribed by said s. 320.06, shall be inscribed the official Amateur Radio call letters of such applicant as assigned by the FCC, including as a prefix, when applicable, those

(*please turn to page 11*)

SEAsia Net Convention

The 1975 convention will be held in Kuala Lumpur, Malaysia, and the group will convene at the Hotel Equatorial there from 7 to 9 November 1975. During the SEAsia Convention, 9M2SEA will be on the air.

The Hotel Equatorial is a new hotel, 17 stories high, and the SEAsia meeting always draws a multitude of DXers from some of the more exotic spots.

Inquiries on the convention can be sent to Roland Fisk, c/o Ericsson Telephone Sales, Box 2443, Jakarta, Indonesia. Roland is presently signing 9M2CJ but will be moving to Jakarta in mid-October.

This is the 5th SEAnet Convention. Maybe it's time to go . . .
—WCDXB

Gilbert and Ellice Islands

I advise that with effect from 1 January 1976 the following political and administrative changes will occur in this Colony.

The Colony will be divided into two separate territories, each having the status of a Crown Colony of the United Kingdom. These will be known as:

The Gilbert Islands — Comprising all present GEIC island groups with the exception of the Ellice Islands, viz:
The Gilbert Islands and Ocean Island(VR1)
Phoenix Islands(VR1P)
Northern Line Islands (VR3)
Central Line Islands(VR7)
Southern Line Islands(VR7)

Tuvalu [NOT "The Tuvalu Islands" please) — Consisting of what are now known as the Ellice Islands. Prefix VR8 has been assigned by the United Kingdom Foreign and Commonwealth Office.

Each territory will have its own separate Administration and postage stamps.
from: D.E.C. Lockyer, Ministry of Communications Works & Utilities, P.O.Box 487, Betio, Tarawa, Gilbert and Ellice Islands.
—IARU Region I News

Scouts support frequency fight

The following has been received from the Boy Scouts World Bureau at Geneva:

"Delegates from 86 countries representing the 14 million strong World Scout Organization unanimously voted to support Amateur Radio operators in their efforts to retain their present frequency allocations.

The 25th World Scout Conference delegates, meeting in Copenhagen 8-15 August, 1975, were conscious of the debt owed to Amateur Radio operators all over the world for the latter's support of the annual Jamboree-on-the-Air since 1958. This event, they were told, is now the largest one of its kind, involving each year some 6,000 Amateur Radio stations in over 70 countries, and bringing over 100,000 members of the Scout and Guide movements in contact with each other. The loss of even some of the frequencies used would seriously endanger its future success.

The text of the resolution, which was proposed by New Zealand and seconded by Jordan and many other delegations, is as follows:

The 25th World Scout Conference requests all member organizations:

1. To urge their Governments to resist any attempt to reduce the number and size of frequencies presently allocated to the Amateur Radio Service and

2. To cooperate with their National Amateur Radio Organizations in any actions designed to this end."
—IARU Region I News

Worldradio

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The Worldradio News is a 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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The Worldradio News is an international conversation. You are invited to be a part of the action. This newspaper is written by its readers. Our goal is to be a valuable resource by distributing ideas and experiences.

We want to be beneficial to the Amateur Radio community. We publicize and support those who bring the flame of vitality to their efforts in this avocation. We feel Amateur Radio is of extraordinary significance.

We are positively-oriented and we ask your cooperation in assisting us to help develop the skill, potential and quality of Amateur Radio.

We see our mission as stimulating our audience and in that we ask your support.

The growth and future of Amateur Radio is one of our prime concerns.

Our readers/participants are an alliance of active radio amateurs who are concerned with reality. They use radio as a communication tool.

While we print all the news of this great activity, we particularly desire an input of stories dealing with the dramatic, the personal and the humanitarian uses of radio.

Through **Worldradio** you can make contact with other individuals who share your interests. And, this newspaper will be getting bigger and better.

international friendship • emergency communications • local public service

Amateurs aid Eye Banks

Amateur Radio operators are among the first to go into action whenever disaster strikes. The "Eye Emergency Radio Net," as it is commonly known, is one of the country's great volunteer organizations. It has never hesitated to respond to the often emergency communications needs of the members of the Eye Bank Association of America, by providing them with a daily direct nationwide radio link with each other.

One of those who relies on this voluntary radio network facility is the Old Dominion Eye Bank and Research of Richmond, VA, a Lions' sponsored non-profit charitable organization whose function is the solicitation, collection, and distribution of human eye tissue provided by donors on death for sight-restoring corneal transplants.

The "Eye Emergency Radio Net," consists of dedicated amateur radio operators from all over the country who have banded together to relay information twice a day on the need for. and availability of, eye tissue in the eye bank they represent. "It's strictly a labor of love," they say.

The network was started in Iowa City, Iowa in 1962 by two radio amateurs, one a physician. Both were interested in the work of the eye banks and were troubled by the knowledge that emergency needs for eye tissue often went unanswered in one city, while only a few hours flying times away eye tissue was available, had the emergency need been known.

Since that time, through the facilities of the Eye Bank Emergency Radio Network, literally thousands of urgent requests for eye tissue from all over the country have been met. Numerous shipments of eye tissue supplied by the Old Dominion Eye Bank to meet emergency needs have been flown to the International Eye Bank, to Europe, as well as to Alaska and Hawaii.

—Rappahannock Times, Tappahannock, VA

Willing to work — *Members of the Reelfoot Radio Club of Union City, IN manned a booth at the recent Obion County Fair in preparation for their annual fall Novice and General classes through which they hope to triple the number of amateurs in the area. Operating the booth here are the Rev. Bob Armour, WB4TPS, seated left; Glen Leggett, K4GMQ, seated right; and Lance Hurd, WN4JNK, standing right.*

The Flying Samaritans

A non-profit organization composed of physicians, dentists, pilots, nurses and other interested persons began in December, 1961 At that time a group of San Diego citizens had flown several bundles of toys to a Christmas party for children of El Rosario, a small town on the coast of Baja, California.

They saw a desperate need for medicine and health care. On their return home they talked to their friends, and from this the Flying Samaritans was born. There are several chapters of this organization. Nash Williams, W6HCD, is President of the Foothill Chapter.

From the Amateur Radio standpoint, the Flying Sams have a loose net around 3855 kHz, about 8:00 p.m. to 9:00 p.m. each night. The early portion is called the TACO net and incudes a number of amateurs in Baja. However, the same fellows form both the TACO net and the Flying Samaritan net, so the two nets practically blend together.

Note: Info from **Donald P. Musgrave, M.D., W6MIG,** MARCO member, an amateur radio operator since 1947. Foothill Chapter, "Flying Sams" P.O.Box 813, LaCanada, CA 91011.

—Skyline

Jail fire

Bonnie Wieboldt, WB4FSF

Recently an inmate set fire to some stored mattresses at the Seminole County jail in Sanford, FL, causing a large fire. This fire injured 60 and killed 12. The father of one of the injured men was in the Canal Zone and needed to be located so that treatment of the injured man could proceed.

Fr. Cannon, curate of Holy Cross Church, who was ministering at the hospital, asked me to get in touch with a Canal Zone station to locate the injured man's next of kin. As I do not have 20-meter facilities, I went to 75 meters and checked in with the Tropical Phone Traffic Net.

Quickly and efficiently, Victor Lindsay, WB4HVE, took the message. He relayed it on to Evelyn Gauzens, W4WYR. Then she and Stan Offenhutter, K4BLM, went to 20 meters and contacted a Canal Zone station. Evelyn relayed progress of the message on 80 meters.

As it turns out, the injured inmate's father was on vacation at the time, but officials with his company were able to locate him. Three hours after the message was originated by this station, the man was located and he was able to contact the hospital.

I appreciate all who helped. This is where our daily message handling practice helped and we did the job we had been trained for.

—Florida Skip

Eloise and the amateurs

Dave Ingram, K4TWJ

Early in the morning of 23 September 1975, Hurricane Eloise slammed into the Florida resort areas of Fort Walton, Destin and Panama City. Tides of eight to ten feet flooded motel lobbies and wrecked major roads as this vacation land suffered damages ranging in the millions of dollars. Communication and power lines were downed, leaving damaged areas isolated from the outside world.

Eloise was indeed one of the more powerful hurricanes in recent years. The hurricane also changed course rapidly during its period of destruction. This created an important need for Amateur Radio communication: describe its path to the proper authorities and provide communication with the stricken areas.

Radio amateurs, in their usual awareness, were well prepared for this unfortunate event. (Hurricanes and tornadoes are somewhat common in the Southeast during Fall, thus amateurs learn weather and crisis work early in life.) The previous night the Gulf Coast Hurricane Net on 3935 kHz, the Alabama Regional Net "M" on 3965 kHz and the Georgia Regional Net on 3975 kHz had carefully monitored barometric pressures and weather conditions within a five state area. Soon after Eloise crossed the sea coast amateurs with Civil Defense, the Red Cross and the National Guard moved into the stricken areas. Meanwhile Eloise moved inland, broadening its path as it lost strength and spawned squalls. Two-meter groups, like the Alabama Emergency Net "X", then began to join in on-the-air action. Mounting reports from stations in South and Central Alabama began pouring into W4CUE, the Birmingham Amateur Radio Club Station at Red Cross Headquarters.

As the hurricane tracked through Alabama, amateur groups continuously notified each endangered area. The hurricane was reduced to a tropical storm by the time it passed approximately sixty miles east of Birmingham, Alabama. W4CUE, manned by local amateurs who were able to secure time off from their compassionate companies, dispatched much of the tornado information to United Press International and the local news media.

Detailed up-to-the-minute reports were relayed on two meters via the WR4ADD repeater in Birmingham and the WR4AGA repeater atop mount Cheaha, Alabama's highest peak. Much of this two-meter operation was also utilized to co-ordinate eighty meter activities. It was quite interesting

(please turn to page 11)

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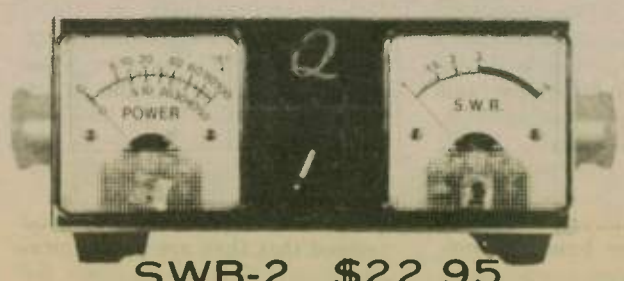

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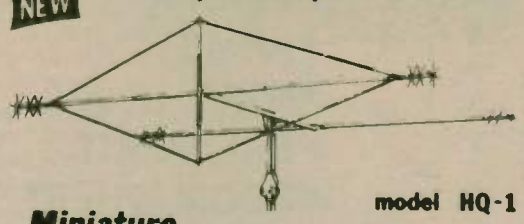

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Emergency communications operating plan

An Emergency Communications Plan for Amateur Radio in support of Civil Defense and the American Red Cross in Leavenworth County.

Purpose: To provide support radio communications in a civil disaster as needed. Radio communications support can, as required, be of four kinds:

1. Local - to provide for police, sheriff, fire, civil defense units in the event of the failure or overloading of regular communications. This would be on 2-meters, simplex, at 146.52 MHz. Base at Civil Defense.

2. Within Kansas City metropolitan area - to supplement or replace regular communications to summon assistance - use VHF repeaters at Platte City, Kansas City, Lawrence, St. Joseph - need all repeater pairs. This could be both for government and Red Cross. Base stations with auxiliary power need to be operable at both Civil Defense and Red Cross headquarters.

3. Long distance-primarily for Red Cross health and welfare and other Red Cross communications with regional offices. Operating capability should be available at Civil Defense and Red Cross. All high frequency bands should be operable.

4. Amateur type health and welfare.

Equipment requirements:

1. Two 2-meter base transceivers with non-directional antennas. Both should have both simplex and repeater capability and sufficient channel selection to work Platte City, St. Joseph, Lawrence and Kansas City repeaters.

A minimum of four mobile 2-meter transceivers in cars with simplex capability. Two hand-held 2-meter transceivers with simplex capability (the hand-held transceivers could double as mobile but frequency choices would be limited). At least one of the base transceivers should have maximum frequency selection to include Army MARS frequencies. Only three brands are known to have this capability.

2. Same requirements as 1 except mobile should also have repeater frequencies.

3. Existing high frequency equipment is probably adequate. The Red Cross probably should have an all-band wire antenna to back up the beam antenna which is susceptible to wind damage. Tuning and operating instructions should be in place by equipment.

4. None required other than that equipment owned by amateur operators.

Personnel:

1. Two experienced operators at Civil Defense and Red Cross. At least four mobile operators on stand-by as needed.

2. Same as for 1.

3. An additional two operators at each base experienced in traffic handling.

4. All available amateurs not otherwise assigned.

Procedures:

The plan shall be put into effect upon request of the Civil Defense Director and/or the Red Cross Director. Notification should be made to any officer of the Pilot Knob Amateur Radio Club who can be reached and that officer shall then notify other amateurs of the need.

Operators for Civil Defense headquarters, Red Cross and mobile shall be designated in advance and should be provided with identification by Civil Defense acceptable to police authorities.

Operators should always be trained that they are communicators only, that any requests for supplies or help should be in writing and authorized by the proper authority. Standard message forms should be used and every message text requesting aid should indicate in the text the authority for the request.

The Federal Communications Commission may be contacted and an emergency clear frequency requested, but only if proper authorities agree that the scope of the disaster and the communications need can be unquestionably justified. That decision should be made by the Civil Defense Director and the Red Cross Director.

Health and welfare traffic should be handled only after all government and Red Cross support traffic is cleared. Outgoing reports should be given precedence over incoming inquiries.

When handling health and welfare traffic, operators should be provided with a casualty list and should be familiar with the areas most severely affected.

3920 kHz will be the operating emergency frequency for high band traffic. The SCM and the SEC should be notified of the situation as soon as possible. It is always preferable to have a net control station located away from the disaster area.

No single operator should try to be an "iron man". Every operator who is willing and capable should be given the opportunity to participate.

All operators must keep in mind that their function is to support and supplement, not supplant, existing communications as requested by authority. They should communicate nothing that is hearsay, rumor or gossip.

Amateur equipment cannot be commandeered by any authority except in time of a declared national emergency. No unlicensed operator can require you to permit his operation of your equipment under any authority other than the Federal Communications Commission. You are responsible for its proper operation regardless of the emergency.

QRZ, Bill Thompson, WØNYG, Editor

CFAR participates in CD drill

Gil Kowols, W9BUB

The day was hot, the sun was high in the sky and the field was littered with injured people. The tornado had just touched down and had left a path of destruction with over 150 injured citizens.

Sound strange? A tornado in July with a warm sun in the sky? Fortunately it was only a drill.

The city of Chicago was testing its Civil Defense muscles. CCD (Chicago Civil Defense) does not have weekly drills but instead has these realistic drills, full dress drills, to see if the organization can cope.

At approximately 10 a.m. on Wednesday morning of 30 July, 1975, the tornado touchdown alarm was sounded. Within minutes CCD units of the Fire Department arrived on the scene, followed immediately by ambulances. Medics started to locate the most severely injured and load them into the ambulances.

All victims had arrived early that morning to be "made up": (I told you this was real) make up, false burns, raw stumps poking out from under a blanket. The victims made a grizzly scene. Some of the victims had even been prompted into moans and trauma: fainting spells, screams, moans and labor contractions (yes, there were two OB victims).

After screening the patients the first load left. This is where CFAR and the Communications group of CCD came in. As the ambulances were dispatched to nearby hospitals, Net Control was notified. The message included destination, number and class of injuries. This information was relayed to the hospital where another CCD/CFAR operator took this information and alerted the Emergency Room. When the ambulance arrived at the hospital this information was relayed back to Net Control to insure that no ambulance got lost.

When a hospital became full, its personnel would notify the CCD/CFAR operator who relayed this information back to the disaster site and no further ambulances were sent to the crowded hospital.

It took about 1½ hours to load all of the 150 injured people into ambulances and get them safely to hospitals.

CFAR played a prominent part in the operation, providing most of the primary communications as well as the alternate channel for communications. It seemed that the

(*please turn to page 16*)

The next time ur in Geneva

Chuck Ballard, WN6CDY

The next time you are visiting Geneva (Switzerland, not New York), be sure to stop in and visit HB4ITU.

What's that, you say? Well, that's the International Amateur Radio Station of the International Telecommunications Union.

Unless you speak fluent French or German you might have some trouble explaining to the average man on the street just exactly what you want to find. If you had your last German course seven years ago, like me, your adventure runs something like this:

Well, where is it? It's supposed to be "International" so maybe it's located somewhere near the United Nations offices. Well, they must be located somewhere near this Place des Nations I can see on this map, so start up the French rental car and let's have at it.

Ooops, was that the international sign for one-way street, or did it mean no parking? Of course, it's raining and the closest parking we can find to the gate itself is one-half mile away. The guard at the gate speaks English but doesn't know about any Amateur Station around here. However, if you buy a ticket for the guided UN tour about to start, maybe the guide will know. OK, one hour later and 3.5 francs lighter, we know that the UN never really meets in Geneva, and the ITU building is that big one back behind the parking lot half a mile down the road in the rain.

Now wait a minute, that nice big building is OK but what about that smaller one with the big beam and antenna garden on it? Well, the lady said the big one so in we go. It's Sunday, the building is empty and the guard only speaks French. Fortunately, Radio Amateur finally gets through and he motions for you to follow him. Into the elevator and down??? We were on the ground floor.

Now we exit into a maze of underground passages that would drive a rat into DTs. Ten minutes later we take another elevator up, and guess where we are? You know that building with the beam? At last, here we are!

Oh no, there's a contest on and two locals have staked out the equipment! Nice guys, but one of them likes to shake people up on SSB by blitzing them in Esperanto, then whatever language they happen to be CQing in. He only knows 6 or 7 languages well enough to carry on a conversation. The other fellow glares at you as you tie up his logger with idle chitchat.

It's been nice fellows, good luck in the contest, and the next time I get to Geneva when there's no contest on I'll look you up. No, I won't get lost in the basement; I'll just jump out of the fire escape window or something. Zumwohl, arrevaderci, bon jour, and goodbye.

The next time ur in Geneva . .

Straight up from down under

Ron Pluck, ZL3PD

The Maori name for New Zealand is Aotearoa, which translates somewhat shakily as "The Land of the Long White Cloud". Visitors from "swinging Europe" find it "The Land of Long White Shroud", and Pommie Austin Mitchell of TV fame dubs it "The Half-Gallon-Quarter-Acre-Pavlova-Paradise".

Americans find New Zealand an anachronism (we call our automobiles motor cars and drive on the left hand side of the road), while Russians ponder the reason for Kiwis playing football with a ball shaped like a cucumber. In a praiseworthy move to put EX-G Radio Club members into a privileged position vis-a-vis the remainder of the International Amateur Radio movement on the question of "What is New Zealand?", the following brief notes are proffered by ZL3PD:

1. New Zealand consists of a mainland and two islands totalling approximately 103,772 square miles. (We talk kilometres now, however, which has the effect of making the country sound bigger than it really is.)

2. The mainland (see 1 above) is sometimes referred to as the South Island.

3. The natives speak English and **do not** wear grass skirts.

4. New Zealand enjoys ample sunshine (see Tourist Promotion Brochures) and heavy rainfall (all Kiwis wear Wellington Boots).

5. The capital city is Wellington (see 4 above) which, perversely, is sited on the windiest portion of the North Island rather than the windiest portion of the Mainland.

6. The most used amateur band in ZL is 80 metres, and many operators still actually use home-brew equipment.

7. There is no such thing as a New Zealand accent. The funny voices sometimes heard on 80 are VK's.

8. Bill is the present Prime Minister of New Zealand. He was preceded by Big Norm and Honest Jack. No New Zealand Prime Minister ever appears to own up to a surname.

9. If a ZL "goes crook" it does **not** mean he has turned to criminal activities. He is simply letting off steam (certain areas of the North Island also do this.).

10. When two or more Kiwis are gathered together a Committee will always be formed. Such Committees are often seen to meet around half-gallon jars (refer Austin Mitchell).

11. Any male Kiwi seen wearing a hat is suspect.

12. Agriculture is New Zealand's livelihood. The farmer is a romantic figure beloved by city workers, and "Bloody Cocky" is used as a term of endearment.

13. New Zealand television (now in colour) is heavily laced with Australian-made commercials, BBC documentaries and American soap operas. A New Zealand made programme is shown at least once a year, generally on Waitangi Day (February 6th).

14. TVI from Amateur Radio transmitters is not a great problem in New Zealand. This is thought to be due to the universal use of 300-ohm balanced feeders for TV antennae plus the relatively low power used by "Ham" transmitters. A pre-occupation with half-gallon jars (see 10 above) rather than microphones and Morse keys during evenings also helps the situation.

Mr. Editor, I could list many more fascinating facts about our fascinating country, but I must not use up too much valuable space in *The Bulletin*. Genuine enquirers seeking more information about Godzone Country, are invited to write to Bill (see 8 above) enclosing six IRCs or a half-gallon jar. Regret to say 807's are no longer legal tender; we use Nippon 6JS6's now. (PO Box 73, Tai Tapu, Canterbury, New Zealand)

—Ex-G Radio Club Bulletin

QST collecting

Phil Sager, WB4FDT

The purpose of this article is to inform the beginner *QST* collector of approximately what prices he should expect to pay for older issues of *QST* and to suggest ways of finding copies cheaply.

Prices fluxuate widely. I have seen a complete year of 1935 *QSTs* selling from one to 20 dollars at hamfests. I suspect this price variance stems from the high regard the seller has of his copies. For example, an OT who is forced to sell his nostalgic issues will want a higher price for them than an XYL who wants them out of her house!

The key factor in collecting is condition. Copies in superb condition naturally command a premium. This is especially important in classic issues, as we shall later see.

For the beginning collector, *QST*'s dating between 1935 to date will be the easiest to find. (The ARRL had a large membership increase in the mid-1930's which accounts for their commonness.) Generally, from 1935 to date, the magazines have little monetary value. I have often seen these years being given away at club meetings, or being sold for a dollar or two per year at hamfests.For example, at a local hamfest last year a fellow was selling *QSTs* in superb condition, dating from 1934, for one dollar per year. At another hamfest, after some negotiating, I bought a complete collection dating from 1940 for only $3.00. That comes to 12 cents a year!

Generally I have found there are two things an amateur throws out. These are his logs and his *QSTs*. Most amateurs are more than happy to get rid of their older copies. My advice for the newcomer wishing to increase his collection is simply to let it be known through your local repeater or radio club, ect., that you are interested in obtaining *QSTs*. I once made an announcement that I was looking for older *QSTs* at a local radio club, and the next meeting I was handed some issues dating between 1922-25!

Usually, issues dating between 1930-34 sell, in good condition, for between $1 to $3 each, or around $10-15 per year. Incidentally, only once have I seen *QST*'s dating prior to 1930 on sale at hamfests.

Issues dating between 1925-29, (*please turn to page 12*)

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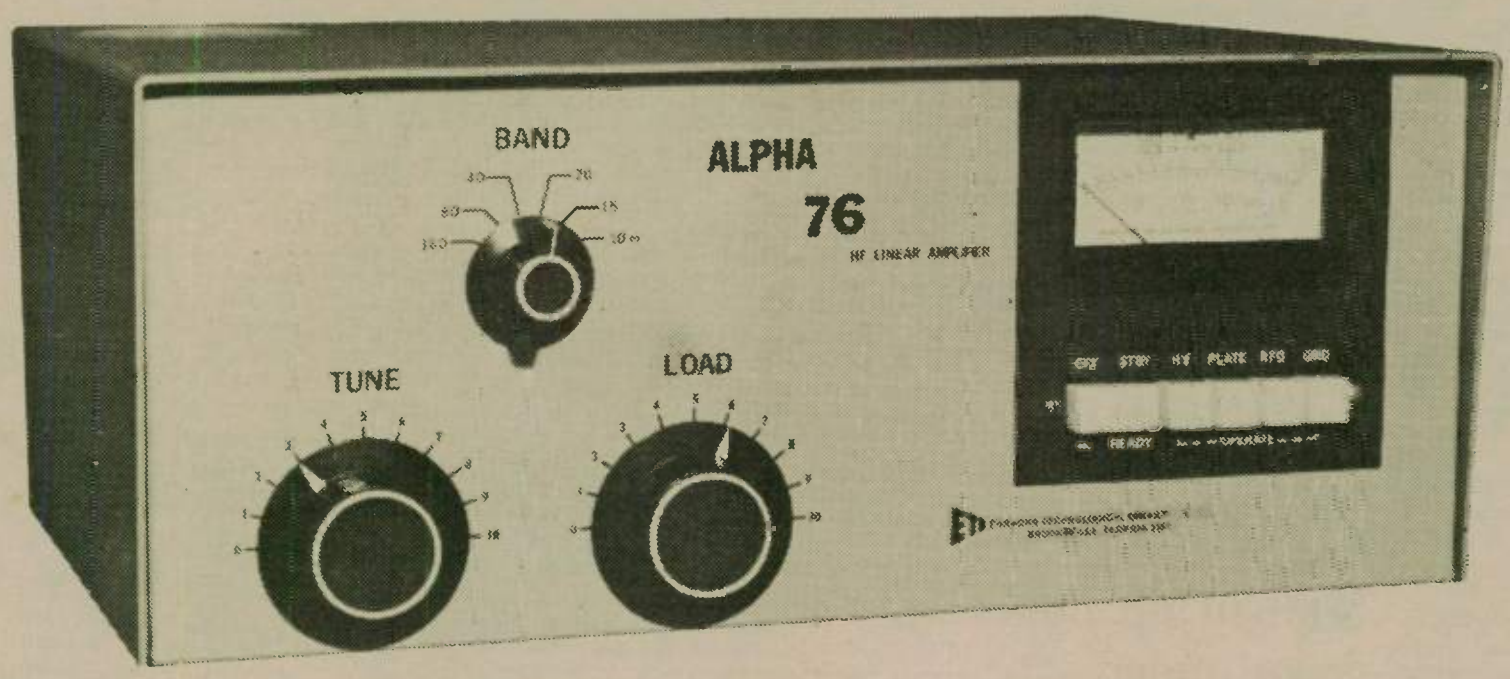

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Hong Kong's first balloon mobile with the Law Courts, the Mandarin Hotel and the New Cannaught Centre in the background. Geoff, VS6DA, takes Cathay balloon into the air to make the first contact. [Photo by courtesy of South China Morning Post Newspaper.]

Balloon mobile, or What's the latest in hot air!

Geoff Green, VS6DA

Hong Kong (VS6) and West Australia (VK6) have both had a touch of hot air recently with the advent of that much inflated new group, the Balloon Mobile Club.

On 21 November 1974 - the 191st anniversary of man's first hot air balloon free flight - Cathay Pacific launched its hot air balloon right in the centre of downtown Hong Kong.

The hot air balloon, made in England, is a Cameron 77 and is in the livery of Hong Kong's own airline, green and white with red lettering. It was piloted by Geoff Green, one of the airline's 707 captains, who also happens to be VS6DA, so what more normal thing than a balloon mobile!

Using a Standard SR-C145B 2-metre hand-held, contact was made from the balloon basket, via the Hong Kong repeater, with Drake Drakeford, VS6EK, and Rudy Gmelin, VS6AX. However, because local air regulations at this time do not permit free flight for balloons in Hong Kong, this was a tethered flight. To do the job properly we had to take the balloon to Australia, and our first free flight balloon mobile was arranged to coincide with some demonstration flights to be carried out in Perth, Western Australia. The Callsign VK6XB (Xenon Balloon?) was obtained, and on New Year's Day we took off from near Perth and climbed to 3000 feet. 2-metre contact was established with Jim Rumble, VK6RU, and Cecil Andrews, VK6AO, and just to add more excitement during the flight, two parachutists made a jump from the balloon.

Back in Hong Kong again, the latest 2-metre balloon mobile was made on a tethered demonstration during the Royal visit to Hong Kong of Her Majesty Queen Elizabeth and H.R.H. Prince Philip on 5th May. The balloon used on this occasion, called "Square Baby", is operated by the Cathay Group of balloonatics! Special Balloon Mail was carried.

Just for the record, we have two balloons in Hong Kong:

Cathay I, 77,000 cu. feet, registration G-BCNS, as described; Square Baby, 56,000 cu. feet, registration G-BDBK, purple & yellow chequered. Cathay II, being made at the moment, is a 56,000 cu. ft. repeat of Cathay I, to be based in Japan.

For us it's the only kind of inflation! We are now trying to obtain permission for a balloon mobile H.F. station - how about a balloon - balloon contact?

QCWA 10,000

Ethel Smith, K4LMB

The 10,000th member of the Quarter Century Wireless Association has just been accepted into membership. Recipient of this distinctive honor is J. H. "Hank" Johnston, W5COC, of Waco, Texas.

The Quarter Century Wireless Association is an organization of "old timers" who have been licensed Amateur Radio operators for at least 25 years. First organized in New York State in 1947, the membership has grown from the original 54 charter members to this historic milestone of 10,000 members.

Hank is an outstanding representative of these old time operators. Starting out about 1915 with a "wireless" receiver built from the Boy Scout manual, Hank was first licensed in 1923 as 5 ANW and he has been active on the air ever since. Now 73 years old, he lists his other hobbies as photography, rifle shooting and blondes!

His original receiver was the proverbial Quaker Oats box, wound with the required number of turns of wire to reach 200 meters - more or less. The transmitter was the usual Ford spark coil "borrowed" from one of the jalopies of the times. With the aid of another fellow "amateur" who built similar gear, the DX record of the time was something in the order of 2 miles.

Hank developed an interest in the clicks and clacks coming from the railroad depot and this led him to try for a job at the local telegraph office. It turned out, however, that they did not use the same dot and dash system as taught in the railroad station, but another type of clatter that didn't make much sense. They did need a "check boy" around the office, though, so Hank got the job.

Up to this time Hank's amateur operating had been done without benefit of any government license - as was common custom in those days. But pressure began to mount against the non-licensed operations, and in 1923 Hank obtained his first call - 5ANK.

He worked as a technician on the Multiplex printer for awhile, then got a job as an operator in New York so he could attend some of the electronic schools. While there he operated under the call of W2AXC. Next he was transferred into Faximile work. During the war years he was in the Telemeter department and some repeater and wire department work. Shortly after the war the company began using VHF radio and, as he puts it, "The boss, thinking this would be a good place to lose me, put me in radio." That started him using VHF radio at the home station - 144, 220 and 420 MHz, along with RTTY.

After retiring from commercial work and returning to Texas, Hank began doing some two-way radio maintenance and television work to keep in practice. The last three years have been filled with loafing, a little hunting and fishing and some hamming - and blondes.

Antenna ordinance

Jerry Broderick, WB5NXB

Amateur radio operators in Tulsa, Oklahoma received a set back 18 September 1975.

The "Tulsa Metropolitan Area Planning Commission" adjustment board ruled that amateur operators do have the right to have a radio tower and antenna at their residences. However, they ruled: although antenna height was unlimited as far as they were concerned, the tower is a structure and, as a structure, was limited to a 26 ft. maximum height.

This ruling is being appealed of course. The board stated that the city ordinance was unclear and needed to be clarified or rewritten. This ruling was made in the case of a group of local residents vs. Jim Pickett, K5LAD. The Tulsa Repeater Organization, in cooperation with the Tulsa Area Radio Club and the Broken Arrow Radio Club, is drawing up an ordinance proposal to present to the TMAPC to use as a guide for adopting a new city ordinance.

Anyone wishing to contribute specific wording or ideas for the ordinance, or the K5LAD Legal Defense Fund, may do so by sending to Box 1422, Tulsa, OK 74101.

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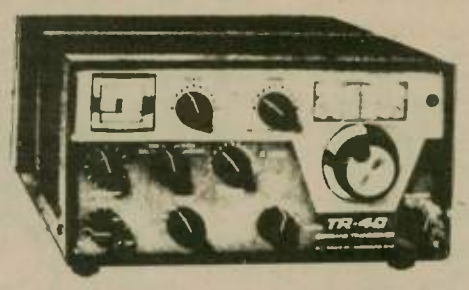

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(*continued from page 1*)
is our biggest opportunity to air our feelings. He said he personally read all the comments that came into the FCC on that docket. He told how he was impressed with the amateur's strong feelings towards the Amateur Radio Service.

Johnston, who took office as Chief on 29 September, said there are many knowledgeable people in the amateur community who could help in the preparation for the upcoming World Administrative Radio Conference. He believes we have the resources, but we have to get it organized and "get it together."

He mentioned that the Citizens Radio Service has been growing by leaps and bounds and something will be done there to overhaul the licensing.

As Chief of the Amateur and Citizens Division Johnston is most concerned with licensing, rules and legal, interpretation of the rules and rule making. He is also Chief of the Disaster Radio Service. He commented that most people haven't heard too much about the Disaster Radio Service and that amateurs are eligible to participate. We told him we would appreciate the opportunity to inform our readers about the Disaster Radio Service upon receipt of material we could publish.

Johnston joined the FCC in early 1972 as Chief, Rules and Legal Branch, Amateur and Citizens Division, Safety and Special Radio Services Bureau. After nearly two years in that post he was appointed Deputy Chief of the Spectrum Management Task Force in the Office of Chief Engineer. He held that position for a year until being chosen to head up the Amateur and Citizens Division. He replaced Prose Walker, W4BW, who retired 31 July at the age of 65.

Considering the controversy that swirled around Johnston's predecessor, we told the new Chief that we didn't know whether congratulations or condolences were in order regarding his new job. He said, "Well, I did apply for the job and I'll do my best to carry out the responsibilities."

The word around Washington was that those ahead of Johnston in the office he left were nearing retirement age and that he (highly regarded at the FCC) would be moving into more responsibilities with higher ratings. His move to his present job was not a vertical rise but merely a horizontal move.

When asked about that he said that he saw many challenges in the Amateur field and many very interesting projects. He feels he has something to offer both the amateurs and the Commission in the area of de-regulation. And he said he thinks he will like the job "just fine."

Prior to joining the FCC Johnston held various engineering positions in research and development projects with RCA, GE and Sperry Rand. Born in Zanesville, OH, he received his BS in electrical engineering from Ohio University. He has written numerous articles on radio topics that have been published in various publications.

Word from other sources inside the FCC say they now expect to see Docket 20282 out in its final form before the end of the year.

•

CPARA's project continues

The CPARA licensing project at the Harry S. Truman Children's Neurological Center has developed sufficient interest that other organizations are now aiding in the effort to help handicapped individuals and Center staff to obtain their amateur licenses. While CPARA members are providing instruction and coordination the Lee's Summit (Missouri) Council of The Telephone Pioneers of America is providing monetary support, and the WECOMO (Western Electric) Amateur Radio Club is building solid state keying devices to be used by the Center.

•

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Mart (*continued from page 36*)

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275W matchbox, $50; HD-15 phone/patch, $25; SWAN 350, mint, never mobile, late model with 117XC supply, manual and extra finals, $300.00. SASE for more info. K6SRM, 272 Fourth Street East, Sonoma, CA 95476.

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Eloise (*continued from page 3*)

to note that most hurricane information discussed on two meters was at least two hours ahead of commercial news media . Following the hurricane's tragedy, newspapers and television stations commended radio amateurs for another job well done. Many TV stations televised amateur radio setups as they handled hurricane traffic. (What a time for SSTV!)

This report is being written while most of our amateurs here in Alabama catch up on sleep lost during the hurricane. Some of the gang worked 36 hours straight. It is presently impossible to list all the dedicated amateurs involved in assisting communication during this crisis. However, they know who they are, and to this we say, "Bravo."

MARS (*continued from page 2*)

call letters assigned by the Armed Services of the United States of America.

Section 2. This act shall take effect July 1, 1975. LEGISLATIVE SUMMARY. Provides that the call letters assigned by the Armed Services of the United States to an Amateur Radio operator are to be used, when applicable, as prefix to the operator's official call letters on his motor vehicle license plate. . ."

—Florida Skip

North Carolina QSO Party

Start 1 November 1975 at 1900Z. **End** 3 November 1975 at 0100Z.

Frequencies — CW: 3560, 7060, 14.060, 21.060, 28.060; Novice: 3720, 7120, 21.120, 28.120; SSB: 3900, 7270, 14.290, 21.390, 28.590.

QSO Exchange — Out-of-state stations send signal report and state, province or country. North Carolina stations send standard signal report and NC county.

Scoring — Out-of-state stations count one point for each NC contact. (Same station worked on different band, mode or in different NC county counts as new contact). **Total contacts times total number NC counties worked equals contest score.** NC stations count one point for each contact. **Total contacts times number of states plus number provinces plus number foreign countries equals contest score.** NC mobiles use number of counties operated from for an additional multiplier.

Logs — Please send us your signed log. Logs will not be returned. Logs must clearly indicate signal report, band, mode, GMT, state, province, country or NC county. On a separate sheet list the following: (1) your name, call sign and mailing address; (2) your total score; (3) county, state, province, country from which you were operating; (4) call signs of operators. Mail logs postmarked no later than 12 December 1975 to Alamance Amateur Radio Club, Inc., 2822 Westchester Dr., Burlington, NC 27215 (SASE appreciated).

Awards — Trophies will be awarded to the highest scoring out-of-state station. NC Station Certificates will be issued to the highest scoring station in each: (1) state, province and foreign country; (2) NC county. A certificate will be issued to the highest scoring NC mobile station. The NC counties award certificate will be issued to any station in the QSO party whose log certifies his contacting 30 or more NC counties during the party time period and has not previously been issued such a certificate by AARC, Inc.

73 good luck de K4EG.

MARAC Newsletter

●

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Novel twist

Ben Russell, W6NYB

In your Teacher column of WRN, August 1975, you solicited new ideas for instruction to be shared with others. Consequently, we think you may find the following to be of interest.

For the past several years we have graduated students from a typical course for Novices, but this year we received a rude awakening that that method of instruction leaves a lot to be desired.

That revelation came about this past Field Day when, for the first time, our club entered the three-transmitter class, and thereby qualified to run a "free" Novice station without going into the next-transmitter level. We expected our recently-graduated Novices to augment our other score by a respectable percentage. Sorry to say, they did not: only 11 contacts in many hours at the controls.

It wasn't the equipment or antennas as they were, for Novices, as good as they come. No, it was stage fright and lack of technique. They couldn't make the transition from the quiet, relaxed atmosphere of the practice room with its code characters coming through in neatly separated bunches of text and numbers, to the somewhat uncomfortable tent with code coming through in a mixed assortment of letters, numbers, punctuation, abbreviations, and "Q" codes, along with generous amounts of static, QRM, and barking dogs. In short, they just couldn't cope in the contest environment.

This year things are going to be different; we are using the basic idea of QSO-oriented instruction. After a preliminary introduction to the code and its cast of characters, we'll start in with QSO's. We'll start each session with a QSO, continue with QSO'S, and end with a QSO. We will not use letters and opposites: no 1,2,3,4 and 5 character sets, no five-letter groups ad nauseam, no separate numbers and separate punctuation. After the preliminary introduction to the code, our first and second letters will be C and Q, not E and T or A and B. Our first sentence will be "CQ CQ CQ de WN6VPZ", not "Mary had a little lamb."

We'll stress making a hook-up, openings, RST reports, QTH's, a little chatter, closings, and what QRQ, QRS and QRZ mean. We'll have actual QSO's between student pairs across the big table. Operator technique will be thoroughly covered. In later sessions other students will make noises, talk and we'll add QRM from off the air. We'll use actual log sheets to be filled-out in real time (not using scratch paper first) and dupe sheets to check on possible repeats. Like we said, it's QSO-oriented all the way.

We suspect the QSO method may take a little longer to reach the five WPM level and, therefore, we are starting some three months earlier than usual to allow for the combined effects of longer time to pass five WPM, longer processing time by the FCC and more actual on-the-air QSO's before the real battle.

Our classes are free and all we ask in return for many weeks of instruction is a worthwhile contribution at contest time. Remember, the idea of a Novice class is not to produce licensees too timid to operate, but to produce gung-ho graduates who are, by their training, already experienced and confident contest operators. We think we have found a better way to do that, and that Field Day 1976 just might see our Novice tent out-score any other set-up.

•

QST

(*continued from page 6*)

in good condition, sell for between $3 to $6 each, or $10-20 a year depending on condition.

Issues dating between 1920-24 sell in good condition, for between $5-$10 each, or about $30 to $50 a year. Copies in superb condition can be worth an additional 30% more than the above prices.

QSTs dated prior to 1920 are what I call "Classic Issues." They are extremely hard to find, and one very rarely sees them advertised in the amateur press.

The first issued of *QST* was printed in December 1915. It continued publication monthly until September 1917 when it ceased during the first World War. *QST* resumed publication in June 1919. Generally, 1919 issues sell for around $25 each. Issues dating from the beginning of publication to September 1917 sell for between $25 to $75 each, depending on condition. *QSTs* of this period without covers sell for about $15 to $20 each.

What does the very first issue of *QST* sell for? The December 1915 issue sells for around $100 with cover. Surprisingly, considering the circulation was only around 600, there seems to be a large number of this issued preserved. In the past year this author has seen five copies offered for sale.

What? You want a **complete** collection? In the spring of 1975 a complete collection was offered for sale in the classified ads section of *QST*. It sold for $1,200! Bruce Kelly, Secretary of the Antique Wireless Association, has told me of "library bound" collections selling for upwards of $2,000. However, I have seen a number of collections, in poor condition, with many classic issues without covers, or missing several 1916 issues, selling for between $300 to $500.

I have noticed that the number of early *QSTs* available for individuals has been declining in recent years due to the owners donating their collections to tax-deductible institutions such as libraries and various amateur or antique radio organizations.

One may think that all early *QSTs* are in the hands of amateurs, but I have discovered that early issues can sometimes be had for bargain prices by haunting various large antique shows. There is always at least one dealer who specializes in magazines of the 1920's and '30's. Invariably radio magazines show up. Usually these issues are from various Gernsbeck publications (themselves highly valued collectors items), but sometimes a *QST* shows up in the pile. I have seen odd issues dating around 1924 selling for $2-$3 each. I have a feeling that sooner or later some "classic" issues will show up.

So best of luck in finding your *QST* collection. Incidentally, my collection, complete from November 1916, takes up a book shelf which is over 6 feet tall and 4 feet wide. (Should any of my readers have any of the 11 issues I need to complete my collection, I'd like to hear from you.)

Wisconsin

(*continued from page 1*)

The world of Amateur Radio is conversations with people of all descriptions who could be anywhere in the world. The operators have contests and competitions for contacting the most countries.

All four of the DXers at Pahr's garage are members of the DX Century Club, which means they have made proven contacts with more than 100 countries.

Sometimes amateurs even create countries. Once a station was set up on a coral reef south of Hawaii, called Kingman Reef, and since the reef was not part of a governed territory, that station qualified as a different country for the amateurs who contacted it. They didn't have much time, however. A storm forced the operators to leave the reef after only a few hours.

Why would anyone want to set up a station on a reef in the Pacific Ocean? According to Pahr, "It's like the guy who climbed Mt. Everest. He did it because it was there."

Some amateurs are also prefix chasers, meaning they like to contact the most different call sign prefixes. The call sign Pahr has for Wonderful Wisconsin Week, WW9, has never been used before, so the Sheboygan County DXers have had lots of calls from people who want to log the new prefix in their records.

After a few years an amateur can build up quite an impressive collection of QSL cards. George Menart has one from King Hussein of Jordan whose call sign is JY1, and he just identifies himself as Hussein on the air. "He's just one of the guys," said Pahr.

Pahr has a card from a man named Tom Christian, VR6TC, on Pitcairn Island, South Pacific. Tom is the only amateur on the island, but his real claim to fame is that he is a direct descendant of Fletcher Christian of "Mutiny on the Bounty."

WW9WWW signed off the air at midnight GMT, 20 September, which is 7:00 p.m. here. The club received a letter of commendation from Governor Lucey when they received their special license, but that's about the only support the group received. Otherwise they were on their own, transmitting in the evenings from the cheese capital, telling every amateur they contacted, "We like it here."
—The Review, Plymouth, WI

VHF

(*continued from page 34*)

situation in hand. We were leaders once; we can be again. By setting the example through more effective spectrum utilization, we may regain the stature we once held. Get out and get started.

The October issue of *Ham Radio* has an excellent article about noise figure, etc., and is worthy of everyone's time to read it through.

How about some news from you guys? I'm still at 4519 Narragansett Ave. San Diego, CA 92107. I'm also here most all the time now, so calls are welcome also: 714-222-8381.

VE YL

I am writing a book on the history of Canadian YLs and Amateur Radio, and would appreciate any info you might have on this subject. I am especially interested in the "old stuff," pioneers in the different facets of amateur radio; the "first" for YLs, the youngest, the oldest; those who were ops in the service, ships, public service, traffic; Canadian YLs (amateurs) who have been well known in other fields.

Any info you might have I will try to follow up. Your help will be most appreciated. I'll be looking forward to hearing from you. 73/33/88 as the case may be. **Cathy Hrischenko — VE3GJH,** 30 Lisburn Crescent, Willowdale, Ontario, Canada M2J 2Z5.

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A proud heritage and challenging future

Presented to the American Radio Relay League, 12 September 1975, Reston, VA

Maj. Gen. Robert E. Sadler

Thank you Commissioner Lee.

I'm really pleased to be here tonight to participate with you in this 21st National Convention of the American Radio Relay League. It is a privilege indeed to share this opportunity with this head table of dedicated and distinguished Americans and the professionals of Amateur Radio.

This is a particular pleasure for me as a military communicator because this is also the 50th anniversary of founding of the Military Affiliate Radio System. While the League and MARS organizations function autonomously, they both have public service foremost among their objectives, and they both have established public service as part of their heritage. With the theme of this convention being Public Service, it is positive that you are going to build on this heritage by keeping it up front.

You can't associate with either of these organizations very long without becoming impressed with the strong role played by the ladies, both as leaders in their organization and in the day-to-day activities of their hobby. I can tell you for sure that recently a very satisfying smile came over my face when I saw in *QST* that AFW6-HTS was credited with being one of our hardest working members on McClellan Air Force Base. As the base MARS Director, Mildred probably doesn't remember me, but I remember her well when just under five years ago as the Commander of Northern Communications Area, she took me on a tour of one of my facilities — her base MARS station. She not only had that function well in hand and running smoothly, but she put out an exceptional newsletter as well. Thanks, Mildred.

You know, there is just something about enthusiasm that you can't forget, and I have noted that this is something that you have in abundance among your professional amateurs.

Now let me make a confession — I am not a licensed amateur — I'm not even a CBer. But I have had a long and pleasant association with Amateur Radio.

I guess I first became aware of Amateur Radio back in the mid 30's when we started to hear a neighbor on our radios whether we wanted to or not.

I can't tell you how impressed I was over the fact that we had a guy right there in our neighborhood who was smart enough to build all of that complex equipment, and I guess that impression stayed with me because I've never forgotten the call sign — W9DJY.

And just the other day I met another kind of amateur operator who really left an impression on me. I was going down 81 taking my son to college when this orange streak went by. About 10 minutes later I stopped at a gas station and there was the orange streak — a hopped-up Torino. I said to the young driver: "I don't know where you are going, young man, but you sure seem to be in a hurry," and he responded: "I was only going 85, but if I had my CB I'd be going 95 and not worrying about it." Now,

Major General Robert E. Sadler

not everybody has this attitude. In fact, CBers have a pretty good image with the general public because a great number of them are also interested in public service. But I thought that was interesting because it reminded me of the message from the President, Mr. Dannals, on the Class E issue in the March *QST*.

I'm sure I don't have to remind anyone here that the issue is how some part of the spectrum between 220 and 225 MHz is going to be used. This has been of great interest to you and is of interest to us, too.

We have some systems operating within this band that are very important to all of us here. You know, we don't have many weapon systems today that are vital to this country that don't rely heavily on frequency support. But we all need to keep in mind that the effective use of the spectrum is vital to all of us. No one should bank frequencies and not make good use of them. None of us draws interest on that.

I had planned to attend the convention. However, I was out of town all this week until late last night. I think it would have been great sport listening to you discuss some of the issues before the convention — I have noted from your correspondence in *QST* that this is not a bashful organization and you can expect to hear all aspects of an issue covered.

I would have particularly appreciated the opportunity of

(*please turn to page 15*)

(*continued from page 14*)
sitting in on the RFI Symposium. You can't be in the communications business without being concerned about radio frequency interference and electromagnetic compatibility.

I would guess that if I had been here, I would have heard the word "restructuring" more than just a few times. I imagine that just about everyone here was among the 56,000 responding to the League's survey on this matter.

I've certainly no intention of getting deeply into the details of this issue with you because I'm not totally familiar with it and this group is. But I would like to offer just a thought or two on the subject from my viewpoint as a professional communicator, but a non-amateur.

First, it would seem that any licensing structure should allow the newcomer to experience the great advantages of Amateur Radio and motivate him to improve his communicating skills and knowledge. Secondly, whatever structuring system is involved, it must be workable and streamlined from an administrative standpoint.

There is a tremendous pressure in our country for personal use of the radio spectrum. Such a force is certainly evidenced by millions of citizen band radio enthusiasts. The pressure of numbers alone is hard to ignore. Today, there are over six million CBers. *The Wall Street Journal*, *Barrons* and *Electronics News* all report that manufacturers of CB equipment can't keep up with the demand. In fact, business is reported to be so good, it's bad. With this interest, and pressure to grow, there may be well over 10 million in the citizens band by 1980, and this represents a voice that **will** be heard.

As I indicated earlier, CBers have a growing public image — they have good press, and incidentally, they are building up a record of public service. *The Wall Street Journal* reports it is estimated that 5.2 million emergency calls on channel 9 are completed each year, and WA1QME points out the value of their radio emergency associated citizens teams in the August *QST*.

Therefore, restructuring, in whatever form, should make room within the Amateur Service for a broad spectrum of individual citizens interested in radio as a hobby.

It seems to me that you have a golden opportunity to expand your excellence and professionalism in a more broadly based Amateur Radio Service. I know the position of the League is that it would rather have a small, strong professional group than a larger group of less professional members, but I don't think there is anything wrong with a **strong** large professional group — it is certainly good for the country.

There are great opportunities here! While you need the pressure of CB numbers, the citizens radio service needs your operational and technical expertise to solve current CB problems of overcrowding, spurious radiations, emission, procedure violations and others. Moreover, they could benefit from YOUR leadership, YOUR tradition of responsible actions and YOUR history of integrity in following the rules of radio operation.

We all want the citizen to be able to share spectrum privileges in our democratic society. We want responsible citizens and a responsible radio service. So the goal, as I see it, is to foster increased participation in your hobby without losing any of the necessary quality aspects of Amateur Radio. For example, the concept of providing a basic class of amateur license with endorsements for demonstrated proficiency in more advanced skills is an ideal way of channeling some of the pressure for spectrum use.

I am, of course, partial to our professional amateur. I would be ungrateful if I weren't because you have made tremendous contributions to the Military. I think one of the most significant ones you make is through the young people you train who eventually join our ranks. I have personally noted that many of our sharpest communicators are amateurs. They are strongly motivated people who have communications as both their vocation and avocation and they are enthusiastic and inquisitive about both of them. So they don't just work at their profession on the basis of a duty day — they go home and continue communicating and experimenting and getting sharper in their profession.

These people are easy to spot — they stand a little taller than most of the rest. They not only know their job technically, but they have a lot of practical, hands-on operating experience that many people, particularly our officers, don't have. They have designed things, built them and fixed them; consequently, they have an understanding of the maintenance and operational problems of their people, and therefore they are able to relate to their people and their people have confidence in them.

I have been fortunate to have one or more of these dedicated amateurs in my organization everywhere I've been. I have three now, and it may be interesting for you to know that one of my best squadron commanders, W3JZJ, worked in ARRL Headquarters before he came into the Service.

I think you can see why I appreciate your programs. And one of the best programs that I know anywhere is your use of OSCAR in the classroom with demonstrations by local amateurs. This program can't help but attract all of those who have an aptitude for Amateur Radio.

It is a great tribute to Amateur Radio that you have the calibre of volunteers who can design and build satellites that have the record of success that your OSCAR series has had. It is absolutely amazing to me that you can build one as complex as OSCAR 7 for $60,000. We could use a little of your budget stretching techniques in the Military because we are having a hard time making our limited budget stretch to do the things we need to do.

Now this might be a surprise to many of you that we have these kinds of problems because I know you have heard that our budget is higher than it's ever been and keeps going up. However, I know I don't have to tell the ladies in this audience that their grocery bills are also higher than they have ever been; they can't buy as much as they used to and that cost also keeps going up. Of course we both have the same problems — our budgets, our incomes, are not keeping pace with inflation. In actual terms — in terms of what the dollar will buy — our budget is the smallest it's been since before the Korean conflict. At the same time personnel costs with 1.7 million fewer people will be 11 billion more this year than in 1968. So all in all our power is significantly lower than it has been in a long while. One of the best deals we have, however, is our MARS program.

Today we have nearly fourteen thousand MARS members in the Army, Navy/Marine Corps and Air Force programs. Of course the great majority of our people are amateur operators from the civilian community, and many of our stations are completely manned by your amateur volunteers. In addition to providing emergency communications MARS provides invaluable voice and teletype communications for our servicemen stationed throughout the world.

Having served as Commander of all Air Force communications personnel in Vietnam, I can testify first hand to the increased morale and welfare provided our servicemen by this link to their wives and families. As an example of the MARS support provided during the SEAsia Conflict, the Air Force MARS handled in excess of three million radio phone patches to and from SEAsia. One of our military stations, at McChord AFB, Washington, heavily augmented by civilian amateurs, completed over 200,000 patches, and three Air Force MARS stations completely manned by amateurs, passed in excess of 400,000

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A proud heritage

(*continued from page 15*)
messages: AFA7UGA — 156,000; AFC6YPX — 137,000; and AFA7-HQF — 130,000.

MARS activity has continued at a high level and last year the Navy/Marine Corps MARS program handled more than 108,000 phone patches for their personnel throughout the world while the Army MARS program handled nearly 180,000 messages.

MARS has more recently responded to the SEAsia refugee communications requirement and one Air Force MARS member handled over 650 messages through his home station. I can't help but mention that recently during the annual Armed Forces Day Amateur-Military Crossband Exercise, the Comm Group at Andrews completed 1686 contacts in a 16-hour period. Some of the participants may even be here tonight because the Andrews station was augmented during the competition by 24 civilian MARS volunteers. Congratulations!

With our natural interest in emergency communications I was very pleased to see the article on EMP in the September *QST*. I hope that those of you who have an interest in disaster communications noted the implication here. EMP spells disaster. If we ever experience it you'll really be needed, and we'll need every radio we can keep in operation. This is another good reason why it is good to work with other groups — they have resources that won't be useful unless you are experienced in working together, have solved your interface and procedural problems and have exchanged ideas on problems such as EMP.

You certainly have a proud heritage — one based on a solid foundation of public service and on good professional people.

With this strong foundation, these good people and the inertia you have going, I don't see a challenge ahead that you can't handle, but I would like to comment on what I see as your biggest challenge for the future.

The key to maintaining the strength and vitality of any organization is its youth. Youth are needed to perpetuate the organization as well as to continue to infuse it with new and vigorous ideas.

You have to keep in mind that the youth of today are more mobile than we were. They are not likely to be satisfied as we were with avocations in the home because it is easier to go and see than it was in our day. While many of you learned about the world from your basement or garage, the youth today doesn't have to.

Young people today aren't as interested in tradition as they are in progress, and there are whole new fields of interest available today that weren't readily available or practical to us. Computers, photography, and today's youth athletic leagues are examples. So there is going to be a lot of competition for the interest of our youth, but all organizations have the same problems and you have a lot going for you.

You demand discipline and youth wants it today.

You ask them to be professionals and they want to take pride in what they do. You have an effective program in making contact with them through your OSCAR program, and while you have tough standards, you are willing to work with them and show them the way.

In addition, you have what I think is the best set of technical publications of any professional organization which they can use to help themselves — and they like that too. The appeal of what you have to offer to them will determine the measure of your success. But keep in mind what may be appealing to you may not be appealing to them.

I guess the only thing that bugs me about all of you here is the term "Amateur." If you aren't professional, what are the other guys?

•

Major General Robert E. Sadler is Director for Communications-Electronics (J-6), Joint Staff, Organization of the Joint Chiefs of Staff, Washington, DC.

General Sadler was born in Eagle Grove, Iowa, on 3 September 1925. He was graduated from Clinton High School, Clinton, Iowa, in 1942, and earned his bachelor of science degree in electrical engineering from the University of Colorado in 1961 and graduated from the Air War College, 1967.

He joined the Enlisted Reserve Corps in 1943 and went on active duty as an aviation cadet in September of that year. He was commissioned as second lieutenant in February 1945 upon graduation from Navigator School, Hondo Army Air Field, TX. He then attended radar school at Victorville, CA, with subsequent assignment to B-29 aircraft units at Alamogordo, Clovis and Roswell, NM.

General Sadler was graduated from the Aircraft Observer Bombardier School, Mather Field, CA in October 1947, as a member of the first class of triple-rated observers and remained as bombardier instructor.

From December 1948 to August 1955 he was assigned in various positions as editor and editorial director of Air Force manuals relating to flying. During this time he was author of several navigation and radar in-flight maintenance manuals and was a member of the editorial staff of *Navigator* magazine.

General Sadler became an exchange student, in August 1955, in the Royal Canadian Air Force Specialist Navigation School, Ottawa, Canada. In July 1956 he was assigned to the United States Air Force Academy, CO, and became Chief, Advanced Flying Training. In this position he developed the curriculum and supervised instruction for the 2nd and 1st Class Navigation Training Program.

In September 1959 he entered the University of Colorado under the Air Force Institute of Technology (AFIT) program, and graduated in 1961 with a bachelor of science degree in electrical engineering.

In July 1961 he was assigned to Headquarters Air Force Communications Service (AFCS), Scott Air Force Base, IL, first as Chief of the Equipment Engineering Branch and then as an advance plans officer. He was involved with communications satellite planning and served on temporary duty as the Communications Plans Officer for Task Group 8.4, the Air Force test element for the DOMINIC series nuclear tests. He was named Chief of the Test and Evaluation Division in December 1965. While assigned at AFCS he was also the Command brieting officer.

General Sadler entered the Air War College, Maxwell Air Force Base, AL, in August 1966. He was assigned in June 1967 to Headquarters US Air Force, Washington, DC in the office of the Deputy Chief of Staff for Programs and Resources where he served as action officer; Chief, Program Management Branch; Deputy Chief, Plans and Programs Division, and later Division Chief.

During his 1970-71 tour of duty in the Republic of Vietnam, General Sadler held a triadic assignment as Deputy Commander of Southeast Asia Communications Region (Mainland), Deputy Chief of Staff for Communications-Electronics for Seventh Air Force, and Commander of the 1964th Communications Group, at Tan Son Nhut Airfield.

In July 1971 he became Commander of the Northern Communications Area, Griffiss Air Force Base, NY; in August 1972 was named Director, Communications-Electronics, J-6, United States Readiness Command, MacDill Air Force Base, FL; and in March 1974 became Vice Commander, Air Force Communications Service, Richards-Gebaur Air Force Base, MO.

In August 1974 General Sadler returned to Headquarters US Air Force for duty as Deputy Director of Command Control and Communications in the office of the Deputy Chief of Staff, Programs and Resources.

General Sadler became Director for Communications-Electronics (J-6), Joint Staff, Organization of the Joint Chiefs of Staff, Washington, DC, in June 1975.

His military decorations and awards include the Legion of Merit with two oak leaf clusters, Meritorious Service Medal and Air Force Outstanding Unit Award Ribbon with V device. He is a master navigator.

General Sadler is married to the former Kathleen I. English. They have six children: Kathe, Janet, Robert Edward Anthony, John Michael and Kathleen Tierney.

He was promoted to the grade of major general effective 1, June 1975, with date of rank 1 July 1972.

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CD drill

(*continued from page 5*)
ambulances left in bunches and the designated frequency of 147.3 MHz was quickly saturated. CFAR provided a second input and was used as extensively as .3 was.

Bill Marston, WB9IMN, is the Communications Officer for CCD and planned the communications aspect of the operation.

Net Control station was located in the Loop and was manned by Arnie Borenstein, W9FO, and Bob Seals, K9AHK. The disaster site operators were Gil Kowols, W9BUB, and Tom Kolvek, WA9CIO. This was Horner Park at Irving and California.

At various Hospitals were:

Belmont Community — Walt Fisher, WA9WUT

Cuneo Hospital — Phil Haller, W9HPG

Illinois Masonic — Greg, WA9GYT

Martha Washington — Harry Hootnick, WA9KTT

St. Joseph — Robbie Robertson, WA9INF
Bob Paculat, W9JBT

Thorek Center — Craig McCartney, WB9EGU

Booth — Ruddy Rubenstein, K9WZG

Columbus — Art Bierman, W9OIG
Marve Reitman, WB9KLY

In addition to these, Pete Peterson, W9SH, and John Wolf, WA9UCX, stood by to handle anything in the way of calls in or out that might be needed.

The final critique has not yet been held; however, from the comments received at the site as well as at the various hospitals, the communications filled a need and gave the hospital advance notice of an arriving ambulance as well as what type of injuries to expect. This assisted them in meeting the ambulances at the door with all of the needed personnel and material.

The disaster site dispatcher was glad to know what hospital had room for what type of injuries so he would not send an ambulance to a crowded hospital.

CFAR again demonstrated that it could provide the needed trained operators to handle the traffic and not interfere with the operation. CFAR members also provided their own equipment and CCD only provided the 147.3 MHz base station and remote receiver.

Finally, Amateur Radio again showed its unique ability to help the community and justify its existence for PICON.

This can't close without a comment that some of the above fellows took off from work and sacrificed a day's pay because they felt this was important enough. The next time an exercise such as this or another activity occurs, your help would be appreciated. Your participation will help maintain the image of CFAR and Amateur Radio.

Don't pass up that chance and let "George do it". Some day George won't be there.

—Mike-Shy, Chicago, IL

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What Amateur Radio has done for us

Franklin Cassen, W6PZU

1. It was responsible for a professional career in electronics.

2. It made possible a choice of a great retirement location.

It was in Memphis in 1951. My son (now W6OAP, ex-W4YMG) was ten years old. His major activity other than school work was baseball. He was too young for girls. Our only exposure to what went on over the air was broadcast radio and some TV. During a visit to a friend's home, who had a shortwave receiver, Quentin was given permission to twist the knob and he found there were other things to listen to. It was Amateur Radio (AM of course). He liked it and asked me more about it. I told him that when I was a youngster I got an operator's (only) license in 1919 issued by the Department of Commerce. It was good for one year. The code speed was ten wpm and the test was in line with the state of the art after WWI.

Back to 1952—

The FCC started the Novice class and that got my son on-the-air. The CW rig had a 6L6 in the final and was on a breadboard stolen from the kitchen. I don't remember what the receiver was. Anyway, and to make the long story short, Quentin got his BS and MS degrees in electronics and is now engaged professionally in microelectronics research and development. He might have become a professional ball player at 100K per year. Oh Well!

As for me, I had to keep up with him. In 1952 I too got my General, which required that time be shared at the slightly improved station. It was organized confusion. Quentin liked DX so I drifted toward the public service phase. In 1958 I was appointed EC (Emergency Coordinator) for Shelby County, Tennessee, and held other appointments up to and including SEC for Tennessee. Finally I was elected Vice-Director from the Delta Division in 1964 and was elected again in 1970 and 1972.

The friendships and the personal contacts made as SEC and Vice-Director proved to be the greatest. The exposure to the workings of ARRL (board meetings, etc.) was most gratifying and enlightening. In 1965 I joined the Eye Emergency Network representing the Memphis Eye Bank. As a result of the friendship and fraternalism of this group I met one happy individual, Russell Krebs, W6HZJ, who knew we were soon to retire and convinced us that a village in northern San Diego County was the ideal spot. So about a year and a half ago we left all our radio friends in Memphis and the Delta Division. Also left the heat, humidity, snow, ice, hurricanes, lightning, and tornado alerts behind.

I find myself associated with one of the greatest radio clubs (Palomar). The wife and I are really enjoying retirement. So, with a professional career and ideal retirement, I have concluded that there is more to Amateur Radio than on-the-air communicating.

Why be an Amateur Radio Operator?

Bill Morris, WA5RSC

Ever wonder why you have been an Amateur Radio Operator for so many years? I have. And I am thankful for it every time I think of the benefits it has given me.

I started listening to the shortwave bands when I was 12 years old. I'll never forget the night I told my dad I wanted to unwind copper wire from an old electric motor for use as a long wire antenna rather than go trick or treating on Halloween night. The anticipation of how well that copper wire would help my shortwave receiving capability was much greater than the childhood desire for another year of collecting treats from the neighbors on Halloween night.

That's the way it all started. I listened until I found an Amateur Radio Operator who lived close enough so that I could hop on my bicycle and visit for a while. By the time I was 14 I had taken my Novice license and was on the air with the call sign KN5EBH in Fort Worth, TX. I had to have a lot of help in those days and most of the "old timers" I knew enjoyed working with me, putting my antennas up and hooking up my first rig. Those were the good old days.

At the age of 15 I had passed my Conditional class license and was very much in the fraternity of "Amateur Radio Operators." During my three high school years I taught code classes to prospective operators and was president of the Abilene High School Amateur Radio Club. With this background and interest in electronics I entered college at Texas Tech University, Lubbock, TX, in the electrical engineering curriculum. I later changed to industrial engineering as a major and received my Bachelor of Science degree in Industrial Engineering in May, 1964. I attribute much of my success in obtaining an engineering degree to the sound foundation received in the field of Amateur Radio, a science in itself.

I must admit that between the time I graduated from high school in 1959 until after I had received a college degree and had been married a couple of years, I was very inactive. My studies had had top priority for nine years.

In August of 1968 I came down with a very serious case of bleeding ulcers. I spent 10 days in the hospital and even contacted a case of malaria from one of the pints of blood they gave me. My doctor asked me then if I ever relaxed. Did I have a hobby? I said, "Yes, I am an Amateur Radio Operator but I've been very inactive for the last few years." The doctor then proceeded to tell me that I had better get active again and relax with my hobby.

So I went down to the local distributor and traded all my AM gear in on an SSB rig, complete with antenna and microphone. All I had to do was hook it up. That took me about a day and overnight I was back "on the air". My wife never knew what Amateur Radio was and now she was married to an operator.

As time went on through the months of recuperating I had many radio contacts with people all over the world, and my wife became increasingly interested. Yes, interested to the point of taking a Novice test from another Radio Amateur in town and getting her license. Her call was WN5ZZL. I helped her get on the air by building her a small transceiver. She operated for about a year and learned to enjoy the world of Amateur Radio. When our second child came her time was restricted to family routines. I am forever thankful that my wife became interested in my hobby to the point of knowing why I enjoy "getting on the air".

In the last seven years I have been active in both ARRL traffic nets and Navy MARS nets. I enjoy handling formal traffic, but the handling of phone-patches is my favorite. I have handled many patches for US civilians located in the Pacific with their families here in the States. I even received a letter of commendation from one of the Marshall Island Club Stations for handling 6 phone patches in one night (2:00 a.m. to 4:00 a.m.).

About two years ago I decided to dress up the "Ham Shack" and instead declare it my "Communications Center." In order to do this I was determined to build or buy a desk that looked like a communications desk. After looking at the prices of commercially built desks, and after comparing the utility offered by the commercially built desks, I decided to design my own to accommodate the needs of most Amateur Radio Operators.

I proceeded to draw sketches, take measurements, and after about a year of deliberation, I finally made a trip to the local lumber yard and purchased the required material. I then set forth to isolate myself in the garage for about three weekends and came up with a Radio Desk/Console Cabinet that is functional in use, appealing to the eye and costs less than the commercial jobs. Besides, I had the satisfaction of building it myself and, as the old saying goes, "Labor ain't cheap to come by no more, unless it's your own."

I incorporated a few items in my design which most operators would like to have available but

(*please turn to page 19*)

Station Appearance

This month's award for "Station Appearance" goes to Dorman "Stub" Reeve, WA7NLC, of Reno, NV. He receives a one-year extension of his **Worldradio** subscription as the prize.

Stub gets the nod for many factors. The neat layout of equipment, which is in contrast to so many "jack-the-spider" type of lash-ups, is but one reason. He cares enough about the station's looks (and his own comfort) to have a nice chair in the radio room. We also like to see other momentos, souvenirs, etc., as decoration. The image of the radio room is enhanced if there are items picked up during travels to other countries. Stub got some more points because of the ARRL DX world map with pins designating the countries he has worked. The globe also added a very nice touch. *Callbooks* and radio publications in display got another "gold star". And he gets a tip of the hat for having a scope to make sure a clean signal is going out.

Then, the QSL cards protected and displayed in the rotary file (that sure beats pulling out the shoeboxes of cards) is a big image booster for Amateur Radio. We see the file is open to the card of VR6TC (see this month's DC column). That's a real conversation piece. Stub can tell the visitor about Tom Christian, hark back to the *Mutiny on the Bounty* days and our activity is linked to other things.

The reason for our "Station Appearance" awards is to encourage the upgrading of the way our radio installations appear to other people. The image others come away with will depend to a great deal on what they see. We can't expect others to think highly of Amateur Radio unless it appears that we do.

Many amateurs have dropped the word "shack" from their vocabulary. They call it a "radio room" or even "communications center".

In these days when "PR" is so very important it behooves us all to help put our best foot forward. A good guideline is to ask yourself, "If mine were the only amateur station that someone were to ever see, what would he think?"

You never know who your neighbor or other visitor may be talking to. It could be a city councilman, congressman or other influential person.

Send the pictures of your nice looking station to: **Worldradio,** 2509 Donner Way, Sacramento, CA 95818.

Why be . . .

(*continued from page 18*)

maybe never did put them all together as one package. I designed the back half of the top section at the angle required to allow all equipment on the desk to set facing the operator face to face. The front section of the top is at regular desk top height with 18" of writing area.

Underneath the desk is a storage shelf 12" x 60" to accommodate test equipment, tape recorders, spare parts, portable rigs, kit building supplies, or whatever you may want to have close by but not on the desk top in the operating mode.

A six-position antenna switch is built into the front panel of the cabinet base section. All antenna connections can come to this one central switch for ease in band switching operations and for concealing coax lines under the cabinet frame.

The feature I like most, and the

(*please turn to page 32*)

The American Radio Relay League

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

This month's article includes number six, continued from last month, and number seven in a series.

number six, con't.

The NTS is far from perfect. It does not work in every situation and is not designed to do so. It is just one organized way to solve the traffic distribution problem discussed above.

In an actual disaster very often point-to-point stations outside the system need to be set up to handle large amounts of traffic. We amateurs with our radio "know how", so well demonstrated during our Field Days, are prepared for this type of operation at any time.

For more information on the NTS, as well the AREC, see various League publications such as the **ARRL Operating Manual** or **How To Operate An Amateur Radio Station.**

The Radio Amateur Civil Emergency Service RACES, the third branch of ARPSC, was established by the Federal Government in the early 1950s. This service is designed to give amateurs an opportunity to provide communications in time of a war emergency when normal amateur operation is suspended.

RACES is a part of Civil Defense and operation is by plans made and approved for local, state, regional and national operation. The service is also designed to give service during natural disasters as well as the war situation.

At present the FCC is considering possible changes in RACES and amateurs have been asked and have commented on an FCC Docket with suggestions and proposals for what the service should be.

One of the problems with RACES in some areas is that local CD units have used the frequencies set aside for the service on a regular basis for communications on a 24 hour per day basis. Since the amateur service is not designed for this type of operation, this has caused problems which the FCC Docket should resolve.

There has been some conflict between amateurs in the various branches in ARPSC as to just how best to provide amateur service to the community. Some feel that operation should be all on regular amateur nets for the Red Cross or some other similar agency, some feel that all operation should be under RACES only, and others have plans for organizations with no contact with ARRL in any way.

These conflicts cause the amateur service to be much less effective than it could be if we had 100% cooperation between all amateur groups and the agencies we hope to service in time of disaster. ARPSC is designed to give all amateur groups a way to set up this cooperative effort.

One other question often asked by amateurs is what is the place of MARS? While this military service is of course a very worthwhile activity for amateurs (I've been a MARS member in one group or another for the past 25 years), the problem is the MARS operation is on military and not amateur frequencies.

While such military frequencies give a clear channel, we need to use our own amateur frequencies to provide communications service to the public if we are to justify the need for our frequency bands.

However, we do need to coordinate ARPSC operation with the MARS emergency operations, as well as the operations of any other similiar communications service that amateurs take part in such as Civil Air Patrol communications and others.

The ARRL, through the operations of the Communications Department, is constantly working to improve emergency and traffic operation by amateurs through ARPSC and needs the support of all amateurs, whether League members or not. We need to make our service most effective in order to justify the need for our amateur bands.

Continued from last month
number seven in a series

Among the many services of the ARRL, Headquarters offers a number of operating and achievement awards. These range from simple awards earned for short-time operating activity and obtainable upon application, to awards earned over a longer period of time and given only by recommendation of more than one individual amateur.

One of the first awards that every amateur, including the Novice, may earn is the *Rag Chewers Club Certificate*. This award may be obtained upon application after the amateur converses with another amateur for one-half hour or more and reports the conversation to ARRL Headquarters. This is often the first introduction on the part of Novice amateurs to the League awards program.

More difficult to obtain, but still earned by many Novice class amateurs, is the *Worked All States Certificate*. This award is earned by making contact with and receiving a QSL confirmation from an amateur station in each of the 50 United States. While it is easy to make contact with some of the states, others, such as Nevada or Idaho, are more difficult and one can often hear amateurs who are working for this award calling a directional CQ to these states.

Endorsements for specialty operation (all on one band, all by one mode, etc.) are available, but the 50 cards must be resubmitted for each such endorsement and all cards must clearly indicate what the endorsement is for.

There is also a *Five-Band WAS Award* available in which the amateur must submit cards for contact with 50 states on each of five amateur bands. This award is made to encourage amateurs to work on more than one band and thus to give more use of our bands, a justification for keeping them.

Perhaps the most sought after award in amateur radio is the *DX Century Club*, issued to amateurs who can submit confirmation of contacts with 100 or more "countries" in accordance with a standard list prepared by the League and designated Operating Aid No. 7. Contacts made prior to 15 November 1945 are not eligible for this award.

This award is sought after by amateurs all over the world and Headquarters makes a special effort to keep standards for the award high. The rules are very specific and therefore somewhat complicated. These rules may be found in the League publication *Operating an Amateur Radio Station*, available from League Headquarters.

Besides the award for the first 100 confirmed contacts, those who have already obtained the award may apply for additional confirmations for endorsement. Some amateurs have well over 300 countries confirmed. The new DXCC listings and the DXCC Honor Roll appear periodically in *QST*.

In addition to the regular DXCC the League offers a *Five Band DXCC* similar to the *Five Band WAS*. In this case the amateur must work amateurs in 100 different countries on each of five amateur bands. Several amateurs have already won the award which has only been available for some five years.

Another award that requires effort on the part of the amateur to obtain is the *Code Proficiency Award*. Amateurs may obtain this award by copying W1AW or W60WP (W6ZRJ Alternate) in one of the code proficiency runs made on a regular basis by these stations. Speeds offered are 10, 15, 20, 25, 30 and 35 words per minute on a regular basis, with special runs to 45 words per minute by W1AW. Times and days of these runs are announced in *QST*, including the special high speed runs.

To obtain the *Code Proficiency Award*, anyone, whether or not he or she holds a license or is a League member, only need copy the proficiency run at the highest speed desired and submit the copy. To qualify the copy must show at least one minute of solid copy out of the full five minutes at any given speed. There are also endorsement stickers available for higher speeds at later dates.

The League sponsors an *A-1 Operator's Club* award designed to promote a high calibre of operating in the amateur bands. To become a member, one must be nominated by two operators who already belong. Originally this award was for CW only, but now includes all operating modes and phases. The amateur, in order to qualify, must show proficiency in the following categories: General operating considerations, procedure, judgement and courtesy and copying abilities.

No one asks for nomination to the *A-1 Operator Club* since it comes as a spontaneous recognition of the amateur's value as an amateur operator by two of his fellow amateurs of proven ability.

An award that is achieved only on the basis of longevity is the *Old Timers Club* award issued to any amateur who had an amateur license 20 years or more ago. It may be obtained only upon application. Similar to this award are ARRL Membership Pins offered to amateurs who have been members of the League continuously for 25, 40 and 50 years. Since League records are incomplete, it is up to the amateur and League member to show proof of his qualification for any of these awards.

An award given by the Section Communications Manager in each of the 74 ARRL Sections each month to the amateurs who qualify is the *Brass Pounder's League Awards*. While the award implies CW operation, it is given for messages handled on the amateur bands on any mode.

To obtain the award the amateur must submit a traffic report to his SCM which shows that he earned 500 message points for traffic relay or 100 or more points of origination plus delivery.

When an amateur earns three BPL awards, he is given a BLP Medallion by ARRL Headquarters. The Medallion is engraved with the amateur's call and date of the award.

Another award given by the SCM is the *Public Service Honor Roll* which is listed each month in *QST*. To achieve the *PS Honor Roll* an amateur must make a certain number of points on the basis of checking into amateur nets, handling net control assignments, originating and handling messages, serving as a liaison station to other nets, handling messages, serving as a liaison station to other nets, handing emergency traffic, handling phone patches or for serving as a net manager. Specifics on this award appear in *QST*.

An award that can be earned by performing a real public service is the *ARRL Public Service Award*. This comes as a spontaneous recognition of an amateur's performance in a communications emergency during which amateurs performed service that could not be accomplished by other means. Award issuances are based on reports received at the Headquarters which resulted in *QST* credit, whether as part of the "Public Service Diary" or a separate feature article. This award shows real service to the public and to Amateur Radio since public service is a major justification to the use of the frequencies we enjoy.

There are a number of other special awards as part of the ARRL Contest Program, these awards being given to those who win in various catagories in events such as the annual ARRL International DX Competition or the annual Sweepstakes. A future article will carry details on contests and will (*please turn to page 28*)

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- The ICOM IC-21A and the DV-21 . . . a truly advanced and unique package well ahead of its time.

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Consider these reasons for owning an IC-30A.

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EDITOR'S LOG

Armond Noble, W6AJY
Editor, Worldradio

There is a deep, probing and very important question that we must ask ourselves.

Are the people in other activities and organizations more dedicated to their purposes than those who are in Amateur Radio?

In this column over the past few months we have discussed the attitudes of such organizations as Rotary, Sertoma and Partners of the Americas. Readers have responded by sending me the publications issued by the VFW, Elks and Lions. Reading such is a real eye and mind opener.

It appears that the Amateur Radio community must do some real thinking as to what is our purpose, role and mission.

As never before, we have problems on the international and local fronts. How these are resolved will hinge on the attitudes of others to Amateur Radio. It boils down to how well is Amateur Radio respected. First, what do the various governmental agencies think about us? Their view of us depends to a great part on how much we respect Amateur Radio.

How important is Amateur Radio to us? Then a person must ask himself — How important is he to Amateur Radio?

In the world the Lions International have about twice the number than are in the ranks of Amateur Radio. The Lions certainly receive more recognition from the public. There is a greater awareness of them than there is of our activity.

Why is that? Let us look through the August 1975 issue of their magazine.

The theme seems to be dedication to Lionism's principles. The publication is an inspiring one. They speak of the value of brotherhood and good will between men. They look at their role as being able to accept the opportunity of assisting those in distress.

The copy I saw contained the inaugural address of their new president, Harry Aslan. (Incidentally, I was able to have a bit of ethnic pride in the fact that the new president of Lions is an Armenian, the son of immigrants to this country.)

Aslan spoke of newer and greater challenges in enlarging the services they provide their local communities. The point he made was one of service and benefit to the community. And he also spoke of the Lions involvement in the world community.

He called the Lions International Foundation a beacon of hope, a self-less hand of assistance.

The Lions will raise one-million dollars this year for their foundation, this while the foundation available to radio amateurs doesn't even enter into the plans of the great majority. We have the opportunity of placing a stationary satellite in orbit and the donations to that have been miniscule.

The Lions speak (and act) in what they call "global service". They also have a program of high school age Lions involvement called the Leo Club. Last year alone they added 500 new clubs to the roster.

Compare that to our activity in which we do practically nothing in assisting the local high school radio clubs. We ignore them. We could work with the high school and colleges as "farm clubs" where they will eventually join the community radio clubs. But we do not.

Look at the number of old grads who make generous contributions to the colleges and universities. Is there any thought among amateurs to help fund their college Amateur Radio stations.

The Lions speak of humanitarian levels, leadership development and giving women a richer opportunity to share in the work of Lionism. How much of that type of thought do you see in Amateur Radio literature?

Is there a reason why the Lions have a far, far greater public recognition and support than we do?

We have the miracle of modern communications, bringing the entire world right into our homes, and we don't seem to be a fraction as involved in an international spirit as the Lions.

The magazine showed pictures of their national convention. Welcoming them was Texas Governor Dolph Briscoe and Dallas Mayor Wes Wise.

Would such come to an Amateur Radio Convention? Entertainer Danny Thomas was there to receive the Lions 1975 Humanitarian Award.

Do the Lions have more gusto than we do? Do our conventions give a spotlight and awards to the achievers in the divisions? Do we have recognition for those among us who make the contributions, whether it be in technical, emergency or international good will?

The Lions magazine mentioned people who had perfect attendance at their meetings. We read of those whose records were 22 years, 23 years, 15 years, 25 years, 18 years, etc. It seems they take it seriously.

There does seem to be a difference. The cry at our radio clubs when anyone is asked to do something is, "I don't have the time". Let's look at Lions president Harry Aslan: The owner of a 600-acre farm, a ranch and fruit packing cold storage company. He's the president of the Kingsburg Hospital District, member of the executive committee of the local Boy Scout Council, served as president of the Reedly College Advisory Council and was a board trustee of his high school district. He's active in a number of professional groups such as California Peach Association and Central California Farmer's Association.

Aslan, who joined Lions in 1949, has served as Zone Chairman, Deputy District Governor, District Governor, holds seven Presidential awards, served as an International Director, third International Vice-President and has the Amabassador of Good Will Award.

From their magazine we pick at random Lions Director Howard Towns of Lake Wales, FL. He is a wholesale jobber and a director of the Florida State Eye Bank and Florida Lions Foundation for the Blind. Towns teaches Sunday School, is active with the Boy Scouts, Little League Baseball and Chamber of Commerce. And, he has recorded 19 years perfect attendance.

Where are such active and gung-ho people in Amateur Radio?

Is this the time to bring a new enthusiasm to our activities?

Let's hear from you along these lines and put your ideas on these pages.

Southwestern Division CONVENTION

OCTOBER 24-26, 1975

Holiday Inn®
VENTURA, CALIFORNIA

Main Banquet Speaker - Mr. Roy Neal, K6DUE, NBC News Correspondent

The network's leading expert on aerospace coverage, Mr. Neal has been present at every one of America's major space flights. He was recently NBC-TV Correspondent for the Soviet-US space link-up from Mission Control in Houston.

Contests

1. T-Hunt on 146.52.
2. VHF/UHF Antenna Measurement. The highest gains measured on 144, 432, 1296 and 2300 MHz will receive prizes. Test antenna will be receiving 1000 Hz modulated vertically polarized signal.
3. QSL, CW and other contests, too!

Amateur of the Year Awards

Three Southwestern Division amateurs will be recognized for outstanding service or acts in three categories. Write for details.

1. Action or service to amateur radio not involving an emergency
2. Action in Public Service
3. Action in Emergency Communications

Prizes

1. The Early Bird prize will be a major prize drawn from the first 35% registered. Over 15% have already registered, so hurry!
2. All registrations received prior to October 10 will be eligible for the big pre-registration prize.
3. The main door prize will be given away at the banquet.

Other activities include:

- Hourly Prizes
- Steak BBQ Banquet and Dance
- No Host Cocktail Party
- Major Exhibitors
- Special Events Station/Talk-in Station
- Major Interest Breakfasts
- Tremendous Ladies' Program
- Wouff Hong Ceremony
- Hospitality Room with Free Coffee
- Excellent Technical Sessions
- 150 RV Spaces
- Swap Tables
- FCC Exams
- ARRL Forum with Gen. Mgr. Baldwin
- FCC Forum with the Commissioner
- Worldradio Forum with Armond Noble, W6AJY

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____	BANQUET ONLY (No Door Prizes)	9.00	9.50
____	REGISTRATION W/O BANQUET Tech Sessions and Exhibits	5.00	6.00
____	LADIES LUNCHEON/FASHION SHOW Not included in Registration Package	5.00	Not Available
____	RECREATIONAL VEHICLE SPACE	4.50 Nite	4.50 Nite

**REQUESTS FOR CANCELLATION MUST BE RECEIVED BY 17 OCTOBER, 1975.*

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- ☐ MARS
- ☐ TRAFFIC
- ☐ WCARS
- ☐ RTTY
- ☐ QRP
- ☐ DX
- ☐ LADIES
- ☐ FM

I WOULD ENJOY THE FOLLOWING ACTIVITY
- ☐ FCC EXAM
- ☐ TX HUNT
- ☐ SWAP TABLE
- ☐ CW CONTEST
- ☐ HOME BREW CONTEST

PLEASE SEND ADDITIONAL INFORMATION ON
- ☐ HEADQUARTERS HOTEL
  Single $18
  Double $24
  Suite $40
- ☐ OTHER HOTELS
  $8.00 and up
- ☐ RV SPACE
- ☐ HAM OF THE YEAR AWARD
- ☐ ANTENNA CONTEST

nets

PREAMBLE

This Net Directory lists all nets that have registered with ARRL since the latest printing of this directory. Annual registration is required for listing. 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. Listing does not give any net the right to prior or exclusive use of a frequency at any time.

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, 1/3 Sn = first and third Sundays of each month, etc. Days of operation are per GMT, not local time.

GMT [UTC] = Time net starts in GMT per daylight savings 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.

Net Name	Freq.	Days	GMT (UTC)	Purpose	Coverage	Mgr.
Knox County AREC Net	146,520	F	2230	ET	Knoxville, TN area	WA4ZBC
Kosciusko County Emergency Net	52,525	W	2330*	ET	Silver Lake, IN 50 mile rad.	W9ENU
Kumsch Net (KN)	146.940	Dy	0655	E	Coney Island, NY	WA2RRG
Lake Emergency Net	146,970	Sn	1300	E	Lake Co., FL	W4FIQ
L'Anse Creuse ARC Net (LC)	21,165	W	2330	T	Macomb Co., MI	WB8NII
	21,400		0000			W8PBO
Laurentian Net	3755	M-S	2345*	T	North Central & East ON	VE3EGC
** Louisiana Amateur Net (LAN)	3615	Dy	2330/0300	S	LA	WA5ZZA
Louisiana Post Office Net (LA PON)	3915	Sn	1200	ET	AR LA MS TX	W5KC
** Louisiana RTTY Traffic Net (LRN)	3587.5	M	0100*	S	LA	W5GHP
** Louisiana Slow Speed Net (LSN)	3703	TW	0100	S	LA	WA5ZZA
** Louisiana Traffic Net (LTN)	3910	Dy	2345	S	LA	WB5EKU
Maine Post Office Net	3940	Sn	2330*	T	New England & ME	W1VLU
Malden Amateur Radio Association Net	29,540	M	1930*	O	Malden, MA & vicinity	WA1HPS
Manitoba Evening Phone Net (MEPN)	3765	Dy	0000	T	MB SK North Western ON	VE4JP
** Manitoba Traffic Net (MTN)	3660	Dy	2345 (0025 during ST) 0400 winter only	S	MB	VE4LG
** Mansfield Amateur Service & Emergency Repeater Net (MASER)	146,520	Sn	0100*	L	Richland Co., OH	WB8GGR
Maritime Mobile Service Net	14,313	Dy	1900	T	International	WB5DWN
** Maryland Delaware D.C. CW Traffic Net (MDD)	3643	Dy	2300/0145	S	MD D.C. DE	W3QU
** Maryland DC Traffic Net (MDCTN)	3920	TThSSn	2200	S	MD D.C. DE	K3TNM
** Maryland Emergency Phone Net (MEPN)	3920	SSn	1700	S	MD	WA3RCI
		MWF	2200			
Maryland Hamateur Free Net (MHFN)	3733	M-F	2145	TW	W1-2-3-4-8	WA3SZX
Massachusetts Post Office Net (MA PON)	50,630	Dy	0000	T	East MA RI South NH	WA1IBL
Mecklenburg County 2 Meter AREC Net (in)	146,340	M	2300	ET	Piedmont area NC SC	WB5CZR/4
(out)	146,940					
Medicare Net	3825	M-S	0900	ETW	New England area	W1JB
Meriden ARC Net	145,350	M	2300	T	Meriden, CT area	W1WEE
Michigan Buzzards Roost Net	3930	M-S	2130	T	MI	W8NDI
Michigan Emergency Net	3930	Sn	1300	ET	MI	W8NDI
** Michigan Novice Net (MNN)	3720	Dy	2130	S	MI	WB8JAD
Michigan Post Office Net (MI PON)	3645	M-S	2300	T	MI	VE3DPO
** Michigan Section Net (QMN)--slow net	3663	Dy	2200	S	MI	W8JYA
fast net			2230/0200			
** Michigan Wolverine Single Sideband Net	3935	Dy	2300	S	MI	K8GBC
Middle Atlantic Region Net (MARN)	3715	Dy	2030	T	W2-3	WN2JRX
Middlesex Amateur Radio Society Net	23,600FM	Sn	2300	T	Eastern MA	WA1RRZ
Midwest Amateur Radio Service Inc. Net (MIDCARS)	7258	Dy	0715*	EW	Midwest States	WØWYJ
MIKO Net	7265	Sn	1100	TW	Continental USA	W8IHD
Minnesota Post Office Net	3925	Sn	1700	ET	MN	WAØYVT
** Minnesota Section Net (MSN)	3685	Dy	2330/0315	S	MN WØPFT &	WAØRRA
** Minnesota Section Phone Net (MSPN)	3925	Dy	2245	S	MN	WAØVYB
Mission Trail Net (MTN)	3928	Dy	0200	T	AZ CA OR WA	W6OCP
** Mississippi Novice Net (MNN)	3733	MWF	2300	S	MS	WB5KAN
** Mississippi Sideband Net (MSBN)	3987.5	Dy	2315	S	MS	WB5BKM
** Mississippi Traffic Net (MTN)	3665	Dy	2345	S	MS	WA5YZW
Missoula Area Emergency Net	3910	Sn	1500	ETW	Missoula, MT area	K7IMZ
** Missouri AREC Net (MoAREC)	3963	M	2236	S	MO	KØBIX
** Missouri CW Net (MON,MON2)	3585	Dy	0000/0245	S	MO	WØEV
Missouri Post Office Net (MO PON)	3963	M-S	2200	ET	AR IA IL KS MO	WAØTAA
** Missouri Single Sideband Net (MoSSB)	3963	Dy	2300	S	MO	WBØFND
** Missouri Slow Speed Net (MSN)	3715	Dy	2100	S	MO	KØONK
Mobile Sixers Net	50,550	Sn	0100	E	Delaware Co., PA WA3MRV &	W3AWA
Monroe County AREC Net	146,460	T	0100	ET	Monroe Co., MI	
Monroe County 2 Meter Net	146,940	F	0030*	E	Monroe Co., IN & vicinity	WB9EAY
Montana Post Office Net (MT PON)	3940	T-S	0030	ET	ID MT SD WA WY	WA7HDD
	3950	Sn	1415			
Montgomery County AREC Net	29,520	F	2300	ET	Montgomery Co., PA	W3ID
Montgomery County AREC 2 Meter Net	146,520	F	2330	ET	Montgomery & Bucks Cos., PA	W3ID
** Montgomery County 2 Meter AREC Net	146,520	1&3T	0000	L	Montgomery Co., MD	WA3SEE
** Morning Kentucky Phone Net (MKPN)	3960	Dy	1130	S	KY	WB4AUN
** Metropolitan Repeater Assn. Traffic Net (in)	146,400	TTh	0100	L	NYC Metro Area	WB2WFJ
(out)	147,000					
Nassau County AREC CD Net	28,720	M	0000	E	Nassau Co., NY area	W2ZAI
	145,680		0100			W2ELK
National Awards Hunters Club Int. Inc. Net	50,400	Sn	1300	T	North Eastern USA	WB2PSV
National Post Office Net (NA PON)	3597	M-S	0200	ET	USA	W8QCU
	7043		0130			
	14,058	0030(June July Aug. only)				
Nazarene Amateur Radio Fellowship Net	21,385	Sn	1900	T	World wide	K4PNJ

SEVEN POUNDS OF DYNAMITE!

DON'T LET ITS SMALL SIZE FOOL YOU. The Atlas transceiver is packed full of the most advanced, state-of-the-art engineering, and provides unequaled performance in both transmit and receive modes. There is no other transceiver on the market with as many outstanding superior features, regardless of size.

COMPLETELY SOLID STATE DESIGN. 4 I.C.'s, 18 transistors, and 32 diodes. Years of cool, trouble-free operating pleasure. The final transistors are fully protected against infinite SWR and thermal runaway. Even with constant operating they should never need replacement.

TOTALLY broadbanded. *No transmitter tuning* or loading controls. No receiver preselector controls. Modern design makes these unnecessary. Instant QSY and band change.

FREQUENCY COVERAGE: 1800-2000, (Model 215x only)', 3500-4000 kHz, 7000-7500 kHz, 14,000-14,500 kHz, 21,000-21,500 kHz, 28,400-29,400 kHz, (Model 210x only). The 10 meter band may be easily owner adjusted on the 210x to cover any 1000 kHz portion of the band. Tuning rate is 22 kHz per revolution, with 1 kHz increments on the dial skirt, (2 kHz on 10 meters).

MARS OPERATION: A crystal oscillator is available for fixed channel operation within the amateur bands, as well as outside the regular VFO band edges. For MARS operation, the extended frequency coverage is as follows: 1800-3000 kHz, (215x only), 3300-4600 kHz on 80 meter band, 6900-8000 kHz on 40 meter band, 13,800-14,900 kHz on 20 meter band, 20,600-21,600 kHz on 15 meter band, 27,500-30,000 kHz, (210x only).

THE RECEIVER FRONT END DESIGN results in spectacular performance. Antenna signals are coupled through tuned transformers directly into a double balanced diode mixer, where they are immediately converted to the I.F. frequency. Only one stage of I.F. amplication is employed before signals reach the crystal filter. As a result, intermodulation between strong signals is suppressed to unprecedented low levels; better than 70 db down with 5000 microvolt signals! Overload from adjacent channel signals is practically non-existent. *If you have not yet operated an Atlas transceiver in a crowded band and compared it with others, you have a real thrill coming!* Ordinary solid state receivers have always been rated as "practically as good as tube designs," even though they usually fall short. Now, Atlas finally provides you with a receiver that is truly superior to tube designs.

RECEIVER SENSITIVITY. The old fashioned R.F. amplifier is no longer necessary. With a low noise figure mixer, followed by a low noise I.F. amplifier, sensitivity specs on the Atlas are as good as the best and better than most receivers having an R.F. amp. (½ microvolt or better on all bands). This will be a little difficult for many to understand and accept, particularly old timers, but it is a proven fact. The Atlas truly has exceptional sensitivity.

MAXIMUM OPERATING PLEASURE. The front panel design of the Atlas has full size knobs and tuning dial, in spite of its small overall size. Small size should not sacrifice operating pleasure. Our fingers and hands do not become smaller. You'll find operating the Atlas transceiver a delightful experience.

MODULAR CONSTRUCTION. Most of the circuitry is on printed circuit boards. There are three plug-in boards for R.F., I.F., and A.F. circuits which provides easy servicing when required. All sections are readily accessible.

CUSTOMER SERVICE SECOND TO NONE. Built to the best commercial specs. Service will not be required very often. But, when required, Atlas Radio backs its product with a service policy second to none. *Your satisfaction is guaranteed!*

THE STORY OF ATLAS RADIO

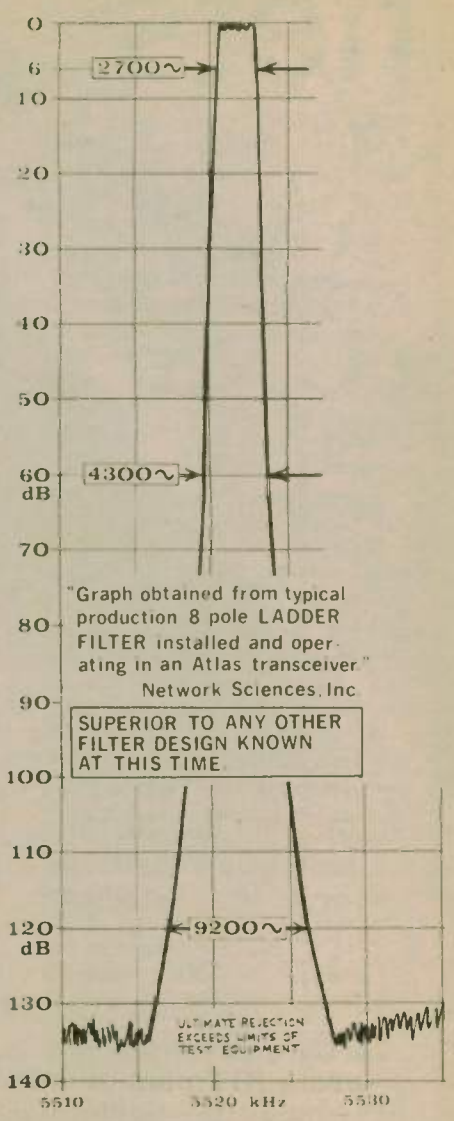
Atlas Radio, Inc., was formed in 1973 by Herb Johnson, W6QK1, who was the founder of Swan Electronics in 1961. Swan was merged with Cubic Corp. in 1967, and Herb as president, stayed on until 1972. In 1973 a meeting with Les Earnshaw, president and director of R & D at Southcom International, Inc., of Escondido, California, led to the formation of Atlas Radio. A license agreement with Southcom was arranged which provides Atlas with the very latest state-of-the-art developments in SSB military and commercial equipment manufactured by Southcom. Les Earnshaw, formerly ZL1AAX, and a pioneer in single sideband and solid state design, is widely recognized as one of the foremost radio engineers in the world.

The Atlas tranceiver uses much of the circuit designs of the man-pack AN/URC-87 military radio designed by Earnshaw, and manufactured by Southcom in great volume for many countries all over the world. They enjoy the same enviable reputation for performance and reliability. Both Les and Herb have the rare talent of improving performance by simplifying and removing unnecessary components. This is called value engineering, and leads directly to greater reliability.

TRANSMITTER SPECIFICATIONS: Circuit Design: Broadband design eliminates transmitter tuning. Single conversion produces minimum spurious mixing products. 2 section low-pass filters on each band provide excellent harmonic and TVI suppression. ALC with panel adjustment. Infinite SWR protection. **Frequency Control:** Internal VFO automatically transmits exactly on receive frequency. Rear socket provides for plug-in of external VFO or crystal oscillator accessory, (Model 10-X), 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, (50 ohm nonreactive load, and 13.6 DC supply voltage) 160 through 15 meters. 120 watts on 10 meters. **Power Output:** 80 watts minimum P.E.P., and CW on 160 through 15 meters. 50 watts min. on 10 meters. **Note:** Ratings are at 13.6 DC volts to transceiver at full load. **RTTY/SSTV Power Rating:** Approx. 90 watts input, depending on heat sink ventilation. Small fan recommended. **Unwanted Sideband:** More than 60 db down at 1000 Hz audio input. **Carrier Suppression:** More than 50 db down. **Third Order Distortion:** Approx. 30 db below peak power. **Harmonic Output:** More than 35 db below peak power. **CW Transmit:** Manual send-receive. Semi-break-in with CW accessory installed in AC console. Automatic off-set transmit freq. **Transmit Control:** Press-to-talk with Mic. button, or manual transmit with panel switch. Automatic voice control when VOX is installed in AC console. **Microphone:** Dynamic or Crystal, high impedance. Requires 1/4 in. diam. 3 circ. phone plug. **Audio Fidelity:** 300 to 3000 Hz, plus or minus 3 db. **Meter:** Reads P.A. collector current, 0-16 amps. **Linear Amplifier Control:** Aux. socket on rear provides for keying of linear.

RECEIVER SPECIFICATIONS: Circuit Design: Direct conversion of signal to 5520 KHz I.F. using double balanced diode ring mixer, providing exceptional immunity to overload and cross modulation. **Sensitivity:** Requires less than 0.4 microvolts for 10 db signal-plus-noise to noise ratio, 160 through 15 meters. Less than 0.6 microvolts on 10 meters. **Selectivity:** Crystal ladder 8 pole filter. Bandwidth: 2700 Hz at 6 db down, 4300 Hz at 60 db, and only 9200 Hz at 120 db. Ultimate rejection greater than 130 db. 1.6 shape factor. **Image Rejection:** Better than 60 db. **Internal Spurious:** Less than equivalent 2 microvolt signal. **AGC:** Audio output constant within 4 db with signal variation from 5 microvolts to more than 3 volts. **Overall Gain:** Less than 1 microvolt for 0.5 watts audio output. (CW carrier, 1000 Hz heterodyne.) **Audio Output:** 2 watts at 10% distortion, 300 to 3000 Hertz, plus or minus 3 db. **Internal Speaker:** 3 in., 4 ohm, .68 oz. magnet. Rear jack permits plug-in of external speaker or low impedance headphones. AC console automatically disconnects internal speaker and connects front facing speaker. Plug-in Mobile Mount provides for automatic connection of external speaker if desired. **Meter:** Reads "S" units from 1 to 9, plus 10 to 50 db. **Calibrator:** Provides calibration markers at 100 KHz increments on tuning dial. **Dial Set:** Permits adjustment of dial scale calibration.

Se-lec-tiv-i-ty !!



"Graph obtained from typical production 8 pole LADDER FILTER installed and operating in an Atlas transceiver."
Network Sciences, Inc.

SUPERIOR TO ANY OTHER FILTER DESIGN KNOWN AT THIS TIME.

PLUG-IN AND-GO POWER

ATTN: Worldradio worldly ops de Doug, W6HVN, of M-TRON.

An amateur we know recently took an Atlas into an African country. It was in his camera bag. With his cameras. He went right through customs. They thought it was a radio to listen on. If that had been the "Band-smasher Mark IV-2" both the rig and he would still be there.

This is the rig we recommend to spies, soldiers-of-fortune, or those going to Wyoming for a fishing vacation.

Ever since they first came out, we at M-TRON have been a big booster of the Atlas. Now, they have even made a good thing better. Better AGC circuit, better S meter works, improved image and IF rejection, and piston-type glass insulated VFO trimmers.

Also, now full frequency coverage on all bands except 10 M. (28.4 to 29.4). Extended MARS capability is now a standard feature.

Halloween SPECIAL

see our used specials on page 10

Due to the possible hazard, we ask all radio amateurs to lower their towers during the flight of the great pumpkin.

If you're frightened of spending too much money on radio gear, come to M-TRON. Ghoul find we're the ghost of the days when prices were lower. Every full moon we slash prices. At M-TRON you don't get tricked; you get a treat.

For starters: The pile-up piledriver-Magnum six-for Heath, regularly $150, here $110. For Swan, reg. $180 here $138. Yaesu-regularly $150, here $114. (Please specify exact model of your rig.) Be a big boomer.

KLM ECHO II CW & SSB XCVR
Go oscar with this quality gear. 10w pep and 6w cw. Frequency coverage 145.000 to 145.230 and 145.770 to 146.000. Sensitivity is 0.3 microvolt for 10 db. Selectivity 2.4 kHz. CW break -in relay time: 3/10 of a second. 2w audio out. 12-16 v in, Built-in noise blanker. frequency synthesizer w/ 10 kHz steps and 6 kHz VXO. Seperate RIT:plus or minus 3 kHz. Remote transmitter keying jack and external speaker jack. All this for only $389.

DENTRON-DENTRON-DENTRON
160XV the 160 meter transverter, top band action for only $199.50. Antennas: 160-40 4 band vertical $79.95, radial kit for the above at $14.95. 40-10 vertical w/ radial kit $84.50. 160 M mobile antenna $59.50. center fed all band (160-10) doublet $24.50. And, the widest line of antenna tuners, here: 160 M long wire tuner 2kw $59.50, 80-10 long wire tuner 2kw $59.50, 160-10 long wire, open wire, coaxial, (load bedsprings, wire fences, mobile homes, keg of nails, Rusty Epps, whatever) 2 kw $119.50. All in stock for immediate delivery.

ITEMS OF PARTICULAR NOTE.....

The nifty Ten-Tec 80-10 all solid state rcvr $249...VHF swr/wattmeter/fsm for $69.95...Viking phone patch $36 50 ...Super X headphones $5.95...Keyer paddles, twin lever, heavy cast base $29.95...KE dual memory keyers $99 ...touch tone pads $14.95...Brass CW keys $4.95...CW oscillator w/ battery and earphones $17.95...CW records $3.95...CW casette tapes $4.95...100 foot rolls of stranded copper antenna wire $5.95...Wanted: customers in Akron, OH

WE'VE JUST GOT TO SAY A FEW MORE WORDS about Atlas. We know you'll be happy with it. If a friend of yours has one, try it out at his QTH. You'll hear why they are so very, very popular. It's fantastic. All Atlas accessories in stock here.

HUBBA HUBBA! This are it.....
KLM Multi 2000 - FM-SSB-CW

RF Power: 10w FM-10w CW-10w USB FM 144-148 MHz, 10 kHz separation w/ plus or minus 7 kHz VFO. FM has narrow (5) or wide (12) band dev. w/ 300-3000 Hz - 6 db. Sensitivity for FM is 1 microvolt for more than 30 db S/N. SSB sensitivity is 0.3 uv for 10 db. Selectivity better than 6 db at 15 kHz and better than 60 db at 20 kHz. For SSB better than 2.4 kHz at 6 db and less than 4.4 at 60 db. Audio output 2 watts into 8 ohms. Power input 13.8 v max dc or 117 vac. This truly remarkable radio is priced at $795.

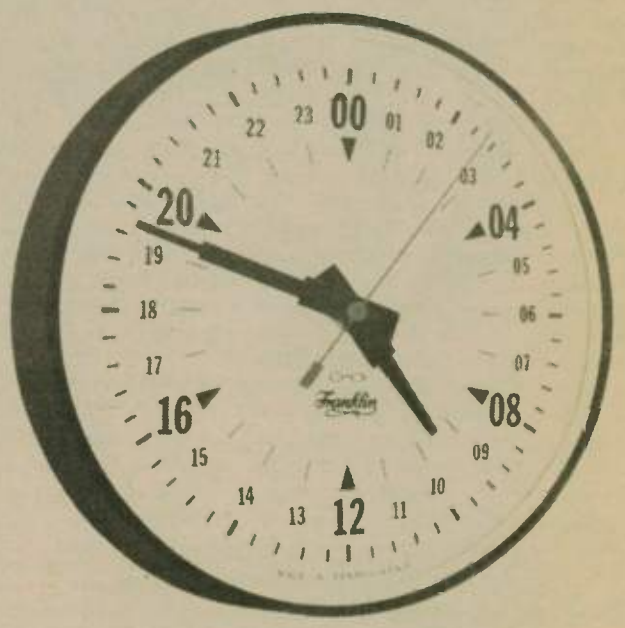
Sound good like you should. Get good reports. Shure 444 microphone. Send $32.70 and it's yours.

Talking about sounding good: For VHF/UHF FM we must mention ICOM. 144 get the IC-22A, 450 get the IC-30. And, we have ICOM UHF xtals in stock. 444.50 rcv. 449.50 xmt @ $6.95 each.

Sound good louder and further: KLM 2-meter amplifiers--2 in/12 out for $44.95. 10 in/40 out $79.95. And, be a tiger 10 in/70 out $129.95

HF sounding good. The quality of the Drake line: R4C $549, T4XC $580, MN4 $110, MN2000 $220, RV4C $110, 8-pole xtal filters, 1500, 500 or 250 Hz $50.00 each.

see you next month



CLOCKENSPIEL:
Give your shack the professional look. Impress visitors. This 24-hour clock has a 12-inch face and sweep second hand. 24-hours for 24 bucks. If you got the money, we got the time, haha.

SQUARE DEAL ON ROUND TURNER
CDE CD44 was $109.95, sale $89.95
HamII was $159.95, sale $129.95

Have a magnetic personality---get the Larsen 2-meter 5/8 wave mag mount antenna. This one is so good there is no second place. Send $35.

Save your assess: Drake's new TVI fighter TV-3300-LP at $19.75

Now, for Filter to operate properly you must have low SWR. Omega ant. noise bridge 1-100 MHz $29.95, and 1-300 MHz at $39.95

Wait till you see the trade in offer we give you on your S-38.

Master Charge, Bankamericard-OK
Write for package deals. Our hours: Mon.-Fri. 9 a.m. to 5 p.m. Sat-9-4. DX ops-we ship to all the world.

M-TRON

2811 Telegraph Ave. - Oakland, CA 94609
Doug Murray, W6HVN (415) 763-6262 Art Mayoff, VE2AQV/W6

DX DIGEST

Gary Stilwell, W6NJU

"Say dear, do you remember that tower and antenna you put up last July?" was a line I wasn't particularly anxious to hear. As I responded yes she continued, "Wasn't that temporary and didn't you promise to take it down before August?" Before I could say yes came, "Do you realize the tower is tilting 20 degrees to the west and is a danger to the house?"

What could one say? The energy that developed while the goal was ahead of me just didn't materialize after the event. It seemed like such a chore to even think of the work to take it down. Anyway readers will be happy to know that the temporary antenna and the tower came down and everything is safely on the ground. Unfortunately, thoughts in the back of my mind keep centering on DX Contests and Sweepstakes. Hummm, maybe I can have a temporary 20-meter beam up.

One of the nicest programs I've seen regarding a DX meeting was the beautiful 24 page program for the 23rd annual W9DXCC banquet/convention. The official program was sent out prior to the banquet and included a schedule, history of the W9DXCC past banquets and picture and biographical sketches for each of their guest speakers. The 9th call area knows how to do things that have a little zip and zing in them.

It is with sad regret that we note the passing of Ray Halkney, W6BUD. Ray was a real active DXer and a member of the Southern California DX Club for a number of years. Ray served as president of the SouthernCalifornia DX Club in 1952-53.

We also note the passing of Melvin Norman, W5AKI. Melvin had been active a great many years, with dates in his log going back to 1924.

CQ Magazine has announced the appointment of Hugh Cassidy, WA6AUD, as Assistant DX Editor and Manager of WPX and CQ DX Awards. Hugh, of course, has been the Editor and Publisher of the West Coast DX Bulletin for the past seven years. Information or applications (except for the WAZ program) can be sent to Hugh at P.O. Box 3388, San Rafael, CA 94901. Hugh will be writing his first DX Column for the October issue of CQ so BE PREPARED.

DX Advisory Committee

The DX Advisory Committee has voted to recommend that the words 'cross-mode or' be eliminated from the second sentence of the 5-Band DXCC Rule 4. The Committee is still considering the printing of the countries criteria on the DXCC Countries List. If interested, send comments to Committee members c/o ARRL.

DXCC

The independence of Papua took place on 16 September, 1975. There will now be a new country listing of Papua New Guinea (effective 16 September, 1975) and the deletion of both Papua and Territory of New Guinea (effective 15, September, 1975). Due to the next Honor Roll listing, official announcement is not expected until the December *QST*.

On 1 January, 1976, Tuvalu (presently the Ellice Islands) will have the status of a British Crown Colony and will be separated completely from the Gilbert & Ellice Colony, so effective 1 January, 1976, Tuvalu will be a new country. Announcement will also be made in the December issue of *QST*.

Mt. Athos — Holy Mountain

A nice note from Martin Laine, OH2BH, regarding the recent Mt. Athos DX-pedition. The QSL card and picture of Martin appear elsewhere in the column. The QSL had a nice picture of Martin and Aris Germanis, SV1GA, and were furnished by the Northern California DX Foundation. From the QSL:

"Mt. Athos, the holy Mountain, has been a source of inspiration for generations, both as an arena for ascetic endeavours as well as a beauty spot. And it can truly be said that everything about this mountain, the sea, its peaks and valleys, its rocks and ridges, its vegetation, its towers and churches, offers a multitude of the finest landscapes in the world.

"The monastic state, unique in the world, covers almost the whole area of the eastern peninsula of Chalkidiki in the Northern Greece. This promontory stretches for about 25 miles into the sea, its width ranging between 5 and 15 miles.

"The DX-pedition ran into much trouble all the way, just to mention that the only transceiver got burned. Only with the extra power prayed for to God was this operation happily completed. We would like to share our happiness with Greek PTT, the 1st Secretary of Holy Council, the Governor of Mt. Athos, the Metropolitan John of Helsinki, the chief at the customs in Dafni and Mr. Robert Thompson, K6SSJ, for making this operation successful."

DX-pedition to Montserrat

Chuck Taylor, W6KXT, had a real nice time operating VP2MCT from August 21st thru the 29th. He used a Swan 350 transceiver, Heath SB-200 with a 2-element quad on 20 and 15 and an 18 AVT vertical on 40. All areas were worked except Asia, with over 1,200 contacts with 111 countries and 50 states. QSLs go to Chuck Taylor, P.O.Box 8502, Oakland, CA 94662.

Iraq

Bill Guimont, W7KW, will be in Iraq for about two weeks starting November 1st and has requested a license (YK1KW). If Bill gets on the air he will be looking around 7095 and 3770.

Equatorial Guinea

Look for Ville, OH2MM, and Fernando, EA8CR, to activate Equatorial Guinea for the *CQ* Test October 25/26. The call should be 3C2DX.

NIUE

VK5XK plans to operate from Niue for about a month beginning November 1st.

Antigua

For those needing Antigua you might be on the alert November 1/2 during the Antigua QSO Party. Sounds like a good idea.

Ascension Island

Vic Walz, WA4TLB, will be operating from Ascension Island in late October, specifically during the *CQ* WW Phone Contest. He has been assigned the call ZD8AA. QSL's should be via W4USN or WA4TLB.

Here and There

The September issue of *CQ* carries an interesting aricle on 80-meter DXing by two accomplished West Coast 80-meter Dxers, Pete Dalton, W6NLZ, and Dale Hoppe, K6UA. The cover carries a photo of K6UA's full size rotable 2-element Quad for 80 meters.

W4LR has relinquished the

Martin Laine, OH2BH

WA4/WB4/WN4 QSL Bureau chores on 1 January, 1976. New duties will be assumed by the Sterling Park Amateur Radio Club, P O Box 599, Sterling, VA 22170. The new Bureau Manager will be Terry Norman, WA4HPF.

Last May, at the Fresno DX Convention, Roger Mace, W6RW, took a poll of the most wanted countries. The response was by W6's and was as follows: Mt. Athos (probably fallen from this spot by now), Iraq, Clipperton, China, Saudi Arabia/Iraq Neutral Zone and Bouvet.

The recent poll by Geoff Watts DX News-Sheet included input from 149 of the world's top DXers and goes: Clipperton, Bouvet, South Sandwich, China, Iraq, Iraq Neutral Zone, Burma, Kamaran, Bajo Neuvo, Mellish Reef, Spratly, Geyser, Heard, Malpelo, South Yemen Republic, Kingman Reef, Albania, San Felix, South Georgia, Annobon, Kermadec, Fanning, Palmyra, Revilla Gigedo, St. Peter & Paul, Tokelau, Juan Fernandez, Glorieuses, Willis, Manihiki, Abu All, Wallis, Taiwan, Campbell, Farquhar, Niue, British Phoenix, Republic of Guinea, Aves, Crozet, Juan de Nova, Mount Athos, Navassa, Khmer Republic, Bhutan, Cocos, Bangladesh, Central African Republic, Somali, Laccadives and South Shetlands. Anyone wants a place to go, there are plenty still needed.

QSL Information

C31GW to F5EQ	VP8OB to G4DIF
C31JI to DJ9EV	VQ9SS/C to G4DII
KC6CG to WA2MPE	YJ8DV to ZL30J
KC6MW to K7DDY	ZD8AA to W4USN
KD5OME to W5UK	ZF1AL to WA4SVH
KO2MA P to K2JOX	5R8AL to F6ACT
KX8BCF to W8BQV	9G5AC to W1YRC
WG4NEP to W4LRN	9J2MH to VE3AUM
WW9WWW to WA9UEK	9M2MA to JA2KLT

More QSL Managers

Bob Howell, WA1QBH, 1 Fernwood Drive, Simsbury, CT 06070, is QSL manager for the following:

HK7BDA
SVØWPP
VX1KE (1974 only)
XN1KE (8/75 to 8/76)
ZF1AH (4/74 only)

From 1 August 1975 to 31 July 1976, VE stations may use the XJ prefix and VO stations may use the XN prefix.

Bob Beaudet, W1YRC, 30 Rocky Crest Road, Cumberland, RI 02864, is QSL manager for:

Currently active:

YB7AAA
CT2BD
9G1AK

Past activity - now QRT

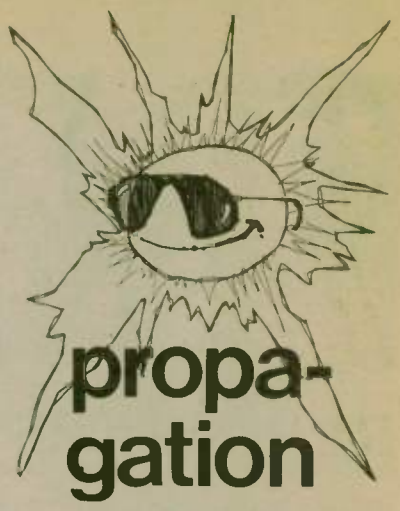
XU1DX	5T5AC
XV5AC	TT5AC
XU1AA	9M8FMF
1S1A	9M8FME
9X5AA	EP2TB
6O1GB	VK9KS

Many thanks for information used to Geoff Watts DX News-Sheet, West Coast DX Bulletin and QSL Managers Directory.

VR6TC

One of the more popular amateurs in the DX world is Tom Christian, VR6TC, on Pitcairn Island.

The island's electrical power is furnished by a generator. Thus, Tom's time on the air is limited by the operating hours of the village generator (which aren't many) and *(please turn to page 46)*



NOVEMBER 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

NOVEMBER 1975

UT	AFRI	ASIA	EURO	SOAM	SPAC
01	10.8	19.2	9.2	14.5	25.5
02	9.5	14.9	9.0	12.3	19.9
03	8.2	12.2	8.3	11.8	15.1
04	7.8	11.5	7.3	12.1	12.5
05	8.0	11.4	6.3	12.7	11.7
06	8.3	11.2	7.0	13.4	11.6
07	8.4	11.0	10.2	14.4	11.8
08	9.0	11.5	10.8	13.7	11.7
09	8.7	10.4	11.0	14.3	11.4
10	8.3	11.3	10.8	13.9	12.0
11	7.9	11.7	10.6	11.6	13.0
12	8.2	11.5	9.8	11.2	12.9
13	9.1	10.6	10.8	14.2	11.4
14	11.7	10.8	14.0	19.1	11.5
15	14.2	12.4	16.7	23.3	15.4
16	16.0	13.0	15.6	25.2	15.8
17	17.4	12.2	13.4	25.6	14.3
18	18.8	11.6	11.6	25.6	14.7
19	19.9	12.6	10.9	25.8	17.1
20	20.4	14.8	9.5	26.3	20.0
21	20.2	18.4	8.8	26.4	21.7
22	18.9	22.1	8.7	25.3	22.3
23	15.6	25.0	9.0	22.3	23.0
24	13.2	22.7	9.3	18.2	24.6

REPEATERS

Repeater Operator Guidelines

The Miami Valley FM Association exists for the primary purpose of providing public service and emergency communications. Because of this and our proven dedication to this goal, we are considered a "charitable" (tax exempt) organization by the Internal Revenue Service. We are also the only non-government radio service to be allowed to operate from the County-owned property in Kettering (highest point in southwest Ohio). Also due to our proven capability, we received a $7500 grant from the Rike Family Foundation which was used to purchase equipment for one of the finest, most dependable repeater systems in the country. The best way to retain this status is to observe good operating procedures and strive to improve our personal technique.

For the most part, the club realizes that no hard and fast rules about what the repeater is or is not used for will cover all cases. However, one of the basic ideas was to operate the repeater so that as many as possible could monitor the frequency for messages, emergency or otherwise, that were of some interest to them or the community.

With this in mind the following Guidelines are presented for all users of the MVFMA repeater systems.

Do...

A1. Do support the club with your membership if you use the repeater more than "on a rare occasion", then use the repeater as much as you desire within these guidelines. Your dues and support of our activities are paying for it, and it's there to be used.

A2. Do identify whenever you key the repeater. Even if you just want to hear the squelch tail, **identify** to stay legal and to let others know who tripped it.

A3. Do establish contact on the 04/64 repeater — then, if practical, switch to simplex or the 31/91 repeater. (Note: This does not mean that complete exchanges of information should **not** be concluded on 04/64. However, we want to encourage the use of simplex and our 31/91 secondary repeater. This makes it more enjoyable to continuously monitor 04/64.)

A4. Do think before you transmit. A little thought ahead of time will make you sound more professional.

A5. Do keep it clean. Hidden meaning or double meaning remarks may fall on non-amateur ears and may not be considered funny.

A6. Do keep transmissions short (one minute or less). Try to restrict length of your contact in accordance with repeater use. In the prime hours of going to and coming from work, 5 minutes may be long enough. During mid-morning or mid-afternoon, 10 or 15 minutes may be within reason. Then after several minutes of silence you may again want to establish contact. There is absolutely no excuse for timing out the repeater.

A7. Do allow time for breakers between each transmission and give breakers an immediate go ahead. If he breaks he believes he has some priority traffic based on these Guidelines. Give him the benefit of the doubt!

A8. Do be a gentleman. Temper is only an outlet for false pride or damaged ego. Let the other guy know that he is important.

A9. Do keep test transmissions short. Identify each transmission and allow breaks for other traffic. Test on the repeater **only** when not practical on a dummy load or on simplex.

A10. Do treat newcomers courteously; help them to become familiar with the FM scene and ask them to contact our Treasurer for a copy of "Repeater Operator Guidelines."

A11. Do listen before transmitting. Refrain from using 04/64 for non-essential traffic when it is being used for public service. If you need it, however, get permission from the control station, then try to make it short.

A12. Do make visitors feel at home. Go out of your way to help the visitor find his way and extend our Miami Valley friendliness. Give him the same treatment you would like when you are visiting his city.

A13. Do wait a reasonable time, after failing to get a station, before calling them again. A subsequent call in less than 5 or 10 minutes should be considered as a non-productive use of valuable repeater time.

Don't...

B1. Don't monopolize the repeater. There are over 130 other members who might like to talk.

B2. Don't **ever** key the repeater without identifying.

B3. Don't break unless you have good reason, such as: emergency traffic, club or personal traffic with a shortage of time, to offer information or to join the QSO. (Note: Time is usually important to the mobile operator. Even if his traffic may not seem important, he has only a given amount of time to get his traffic through.)

B4. Don't continue when you are poor copy. Get the important traffic through, but then knock it off.

B5. Don't use valuable repeater time in redundant identifying. Identify only as required by law.

Autopatch

Many operators, members and non-members, are under the mistaken idea that our auto patch is open to all! Club policy is as follows:

C1. Patch is open to all full members at any time.

C2. Patch is open to **all** amateurs on an emergency basis.

C3. If you have occasion to want to use the patch for other than an emergency, we expect you to help defray the cost of the service by joining the club and paying dues.

C4. The code shall remain simple, available to all as long as its use is not abused....* to open patch....# to close down.

C5. Always identify and **request patch,** then drop your carrier and allow time for a breaker. If you hear no objection, then access and complete the call. After cutting off phone line, identify again indicating "clear patch".

C6. Members should offer to access the patch for any itinerant mobiles as they are passing through the Dayton area.

C7. Long distance calls or calls of a business nature are prohibited.

C8. Your transmission always overrides the audio coming in on the phone line. This can be used effectively to prevent any unlawful or unwanted speech from being transmitted.

The above Guidelines were adopted by the MVFMA on 16 July, 1975. Guidelines Committee: M. E. Kohl, W8SLY, Chairman; Dave Taylor, WB8QXA; Lee Haas, WA8MSD; Jim Farley, WA8BNW;. Ed Lemaster, WA8LXT.

ARRL *(continued from page 20)* include the information on these awards.

All ARRL awards are administered by Headquarters under the direction of the Headquarters Contest and Awards Committee. The members of this Committee are George Hart, W1NJM; Lew McCoy, W1ICP; Bob White, W1CW; Ellen White, W1YL; Bob Myers, W1FBY; Dave Sumner, K1ZND; and Jim Cain, WA1STN.

This Committee determines what countries will be included on the DXCC list, rules for contests, reviews contest scores and determines disqualification of entries. The Committee meets regularly to review awards and contest matters and consider recommendations from Advisory Committees.

Many amateurs and League members mistake the ARRL Advisory Committees, specifically the Contest and DX Advisory Committees, as handling the matters that are part of the activities of the Headquarters Contest and Awards Committee.

This is not the case, as the Advisory Committees were established by the Board as a way for members to give recommendations primarily to the Board and also to Headquarters. While the Advisory Committees have certainly been very influential in determining the course of action taken by the League in many areas, they are not designed to handle the routine administrative matters that need to be centralized.

Hopefully the Advisory Committees serve as a means for members to make their wishes known, and a future article in this series will deal with the structure of this advisory system to help members understand how best to achieve change that they feel is needed.

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Bellaire, TX 77401

Bratty Communications
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Reseda, CA 91335

Buddy Sales
2445 Harbor Blvd
Ventura, CA 93003

Burghardt Amateur Electronics
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Watertown, SD 57201

C & A Electronics
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Carson, CA 90745

CDS Electronics & Hobbies
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Grand Forks, ND 58201

CFP Enterprises
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Lansing, NY 14882

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Tipton, OK 73570

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101 S 31st St
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CW Electronic Sales Co
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Denver, CO 80202

Craig Radio
29 Sherburne Ave
Portsmouth, NH 03801

Derrick Electronics
W. Kenosha Hickory
Broken Arrow, OK 74018

Douglas Electronics
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Down East Ham Shack
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Great Falls, MT 59401

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Portland Radio Supply
1234 SW Stark
Portland, OR 97205

Precision Radio Co
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Kansas City, MO 64132

Progress Electronics
825 Commerce St
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Quement Electronics
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San Jose, CA 95128

RMS Corp
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Littleton, MA 01460

Radio Pro Shop
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York Radio
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TELEVISION

Dave Ingram, K4TWJ

The advent of Fall again has many of the gang working on new equipment, chasing DX and giving local demonstrations of Slow Scan TV.

Since most large conventions which reflect SSTV interest have lulled briefly, we now have a chance to try some of the ideas gained during the Summer. What an ideal time for non-Slow Scanners to get involved with SSTV! Several newly announced designs now give newcomers a wide array of monitor circuits from which to choose. These circuits will not appear in publications for several months, so here's the inside story.

Mike Tallent, W6MXV, of 6941 Lenwood Way, San Jose, CA 95120, is finalizing the intricacies of his new MXV-100A monitor. This is an updated version of the sophisticated W6MXV unit which was described in the "SSTV Handbook" published by *73 Magazine*. The new monitor is available in printed circuit board type kits, with or without parts and cabinet. Write Mike directly for full details and prices.

Dr. Robert Suding, WØLMD, has designed a new video sampling monitor. Larry Pryor, WA9MFF, Carrollton Avenue, Indianapolis, IN 46220, is producing printed circuit boards for this P-7 unit. It is relatively straightforward in design and displays clear, lifelike pictures. A single printed circuit board is utilized and it incorporates all circuitry except the high voltage supply. Complete details on this monitor will appear in my forthcoming book *Slow Scan TV for Amateurs*.

Bob Tschannen, W9LUO, has refined his original "Mark I" monitor circuit and it will also appear in my SSTV book. Meanwhile, write Bob on the availability of schematics and printed circuit boards.

Gene Hastings, W1VRK, and approximately 15 others are building the WB9LVI Slow to Fast Scan converter described in March and May, 1975 *QST*. This unique converter incorporates digital averaging techniques to produce high resolution 256 line pictures from ordinary 120 line SSTV. Ed Arvonia, W3LY, coordinated building efforts which reduced the individual converter cost (including boards, parts, cabinet, memory chips, etc.) to approximately $450. W3LY may still be able to assist others interested in building this unit, so you might write to him for more details.

If you're interested in surveying the digital scan converter or SSTV Keyboard market, last month's column included full details on these items. Why not try a fall "building spree", and if you need technical assistance check in with us on the SSTV Net Saturdays at 1800Z.

The Fall season is also stimulating SSTV DX activity on the high frequency amateur bands. Quite often European SSTV has been extremely strong into the United States, and South American SSTV-ers have pegged my "S" meter. Bob Howell, WA7QBV, recently caught Peter Towers, ZS6PP, on 20 meters and they exchanged good quality SSTV pictures. "Bernie" Bernardini, K6UV; Jim Rogers, W4ATK, and I recently had an interesting time with Bill, KL7AIG — the first active Slow Scanner on the Aleutian Islands. ZS2VV is reported operating SSTV from South Africa, so you might keep an eye for him on 14.230 kHz.

Eddie Collins, W4MS, now boasts 102 countries on SSTV, so he probably won DXCC/SSTV NUMBER TWO. Connie Owens, WA1NXR, recently worked FC6-CPW on Corsica which placed her SSTV total at 81 countries. She may soon be pushing for a DXCC/SSTV certificate also.

Recently, Sunday afternoons and evenings have been good for catching SSTV DX. Don't give up if 20 meters dies out soon after sunset. Frequently I've noticed that it reopens around 0400Z, and propagation is fairly good. Naturally, there's much more happening in the world of SSTV DX. These were just some random picked monthly examples.

Several SSTVers are finding SSTV/QRP an enjoyable aspect of the DXing game. Possibly this is because the challenge of long distance video exchanges via low power requires more persistance than a P-7 phosphor. Not withstanding the odds of QRP, WA7-QBV is still doing great with his five watt Argonaut on SSTV. Bob had worked 24 states on video at last count — many of these were 5-9 reports. I've copied his SSTV several times and the Argonaut has always been "closed circuit". Obviously this proves that high power isn't necessary for SSTV operations.

The next time you are working around the shack, try leaving a rig tuned on some popular SSTV frequency like 14.230 MHz. It might lead to some very interesting contacts. Also, I would like to emphasize that 14.230 is **not** the only frequency relative to SSTV activity. SSTV may be transmitted in any advanced class band allocation so move around when QRM builds up. 3845 and 7171 kHz are also popular SSTV frequencies during mid-evenings when you like to contact other Slow Scanners near your area. Operation on 21.345 MHz and 28.680 MHz is presently somewhat sporadic due to sunspot activity and propagation. Watch for weekend openings on 15 and 10 meters, however, because SSTV activity is often very good.

I wonder if many of you operate SSTV on two meters. What kind of luck (good or bad) have you experienced? Logically, two is fine for experimental SSTV work, although it defeats the primary advantage of Slow Scan — long distance visual communication. After all, you can accomplish local video communication with Fast Scan TV on 432 MHz. Any comments or opinions?

Incidentally, if you have heard talk concerning FCC type acceptance restrictions on amateur gear, don't become too disturbed just yet. I understand this move is merely a countermeasure directed towards the unrestricted manufacturing of modern gear capable of high power 11-meter operation, and also towards 2-meter gear with spurious radiation which might fall near aircraft related frequencies. SSTV gear should not fall into the restricted catagory. It will be some time in the future before restrictions will be placed on homebuilt gear (transmitters, etc.).

Now let's talk about you. What new projects have you initiated? How many countries have you worked on SSTV? Maybe you have some suggestions on Slow Scan applications concerning useful communications. Contact me and let's get that information in print for all to know. I'm usually with the SSTV Net on Saturdays, or you can write me at Eastwood Village #604N, Rt. 11 — Box 499, Birmingham AL 35210.

73, Dave, K4TWJ

Here's looking at you! While rummaging through my SSTV library, this fiery set of eyes suddenly stared back at me from the monitor screen. Catchy picture isn't it?

Living the good and long life

Art Monsees, K4QG

Died-in-the-wool and enthusiastic radio amateurs enjoy the challenges of our hobby. These amateurs are too busy to worry or be concerned about entering old age. They are too busy operating, building, and just enjoying life. They, oftentimes, carry their vitality and enthusiasm into ripe old ages. On the other hand, the saying, "A person dies when he no longer contributes to his family, his hobby, his club," applies.

The critical period for these dying amateurs seems to set in when they reach their late fifties or early sixties. They feel that they are "over the hill" when their company places them "out to pasture." Many of these amateurs, then, simply exist—are not really living—just waiting to die!

Quite often amateurs with impressive DX and contest records, high monthly traffic totals, etc., realizing that they have gone as far as they can, find that there are no new challenges because they lack the energy and ambition to enter new areas within our hobby. As a result, they lose interest and find themselves in a rut. Soon they begin to refuse to attend radio club meetings, excusing themselves by saying, "I've done my share; let a younger man do his part." Well-meaning older amateurs' egos are further hurt when they run for elected club offices and are defeated by less-experienced, success-oriented younger men. The older men, then, may withdraw from their clubs, disassociate themselves from their friends and associates.

Getting involved in club activities may be one possible solution for living the good and long life. It will take force and it will take determination. Yet being alive and living are well worth the efforts.

Several ways in which one may remain mentally and physically alive are to keep up with the latest states of the art, studying for a higher grade license, even participating in Field Day or operating in the simulated emergency tests.

Give Father Time a wide birth. After all, it is your life.

Florida Skip

MARITIME MOBILE

Bill Yost, WA6PIU

QRP survival package

In prior issues I have emphasized the great potential of amateur radio in aiding small craft in distress. This month's column is devoted to such an application via the QRP mode.

de: **Jim Eakin, W6SBY**

Your February 1975 column on Survival Radio was read with great interest. Being a cruising boat sailor for the past ten years, considerable thought has been given just this problem as well as to the general QRP requirement for small sailboat communications.

The rig described here was put together as an all-purpose emergency portable for home, field, mobile or sailboat use. It produces 5 watts RF output, CW, over the 7.0-7.3 MHz band, drawing about 900 ma at 13 volts with the key down. The receiver is direct conversion with the transmitter PA tank circuit providing additional RF input selectivity while receiving. A diode T/R switch provides for smooth break-in operation with the receiver returning to full gain between letters during sending. An RF directional coupler allows easy driver and PA tuning with a reflected power position to indicate relative antenna VSWR.

The circuitry was developed by associates Bob Friess, K6HMO, and Roger Bunce, W6EFI. The packaging was the sailor's contribution.

The machine fits into a 50 calibre surplus ammunition box. It is hermetically sealed when closed, water tight. The box was first stripped and hot dipped galvanized to provide corrosion resistance against the salt water environment. It weighs about 5 kilos. It won't float, so therefore requires a safety lanyard.

As shown in the photos, the unit is self powered from eighteen 1.7 ampere hour Nicad D cells. Provision is made for operation from an external 12 volt negative ground battery source, car, boat or home emergency battery. A current limiting resistor and panel jack allow for recharging the Nicads without removing the case.

For truly low drain receiving with head phone the audio power amplifier is switched off. The receiver Q multiplier oscillates when the transmitter is keyed to provide monitoring.

The internal battery will permit 4-6 hours of normal CW operation. The receiver demodulates SSB and AM nicely so that it is possible to break phone nets or round tables in an emergency.

Insulators in the back stay of the 25 foot sailboat form a slant vertical antenna a little over a quarter wave on 40 meters. A small series tuning capacitor and ground from a drilled and tapped keel bolt complete the circuit for a flat resistive radiator.

Little rig with all accessories for field use

In the event of dismasting, a cabin mounted mobile loaded whip will replace the back stay antenna. In case of foundering, a very light-weight helical-wound short fiberglass whip is planned for use in a dinghy. A ground would be extended from the front panel binding post via a flexible bronze wire over the side to a small fish sinker, say a couple of meters deep.

For field operation a horizontal dipole fed with RG/59 is strung up in the trees. The external power cable connects to the first available car battery.

At home a fixed dipole, 150 ampere hour storage battery and rectifier charger form the complete station.

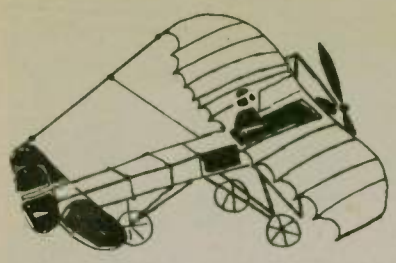
The little rig has given excellent service over the past four years. A dinghy survival test will hopefully

(*please turn to page 32*)

Rear view of the QRP rig showing the 18 Nicad D cells

AERONAUTICAL MOBILE

Vern Weiss, WA9VLK



Well, I have done it. I sold my two-meter FM transceiver and bought a used Hallicrafters SR-150. For those not quite abeam to what an SR-150 is, it is a low-band rig. I spell: Lima Oscar Whiskey Baker Alpha November Delta.

Surely there are thousands out there waiting for the provocation to string me up and this should do it.

Two meters is great and everyone on there is great and the equipment is great and the benefits are great and the greatness is great. BUT, (ropes ready, guys?) it began lacking; and when things begin lacking, I exit. Airplaning above the scenic blah of the Midwest has become a common activity heard on two meters. So, if everybody else is doing it, why should I?

Hence, I gave up the convenience of three simple wire hookups and tiny size for bulky equipment, engine noise, mounting problems, hookup problems, antenna headaches, drift, QSY tune-up, QSY tune-up, etc., etc., etc., and you know what? I am having a ball!

We are living in an era when convenience overrules desire, and while amateurs might really enjoy operating (low-band that is), the ease of a talkie in the pocket outweighs the other hurdles. But I would heartily like to encourage you to give it a try. Take a low-band rig aloft, wait for the pile-up...and enjoy. Amateur operators have always been known for their ability to overcome the most forbidding obstacles for the needs of their hobby, and I would very much like to see this ingenuity put back to work in the form of air mobile activity on the lower frequencies, where, still, the majority of the amateur population operates. A couple of meters are fine...but so are a few more!

I want you to take a look at the QSL I received from Kaye Ramsey, WØSBZ, Omaha, NE. He operates some two-meter FM from his Cessna Cardinal 177B and made several of the fly-ins in his 1946 Aeronca Chief. Kaye holds a commercial ticket, multi-engine, instrument rating, CFI and CFII and has outfitted his Cardinal with the very finest: dual nav/coms, ADF, marker beason, glide scope and transponder. I will reserve comment on Kaye and his situation for after I stop drooling.

WØSBZ's CFI and CFII brings me to an item of interest to flight instructors near and far. A net comprised of CFIs has formed on 40 meters to exchange ideas. I believe it is a CW net but am not certain; therefore, I will stop at that point and try to scrounge up the information by the October *Aeronautical Mobile*.

Also from the mailbag, a letter from William Cryer, W6RCC, which I print in its entirety.

"Have been reading your articles re Aero Mobile for some time now and enjoy them very much. Am a "Charter" member of Hartley's (WB6CQW) Happy Flyers group.

I have owned a Model J-35 Bonanza for ten years and have operated Amateur Radio in it for all that time. Started with a 2 meter AM rig with an antenna taped on the window. Had professionally installed an electric reel SunAir Model ER-14 long wire for use on the low bands. For last four years have been using a belly mounted helically wound vertical for 2 meters which works fine. Would advise others to mount theirs as far aft as possible to lower stray ignition noise on weaker signals that can leak out of a shielded system. Until a few months ago our air mobile operations on 2 meters was with an HR-2 but have updated to a IC-230. It seems every year I fly from here in the SF Bay Area to New Orleans. Have found with only using 34-94 machines there is no "gap" in repeater coverage for the entire flight. SFO, Bakersfield, Prescott, AZ, Albuquerque, Lubbock, Dallas-Fort Worth, TX and Baton Rouge, LA.

Am using an SBE-34 on that long wire with results like KW. Manufacturer recommends using a 3/4 wave length against the air frame as a counter poise, radial, ground or what have you. It tunes just beautiful. At first, measured wire on the ground and noted reading on digital counter drum at pilots control. In the air I use an SWR meter in the RF line for critical tuning (and boy is it critical as just a few inches either way makes a big difference). Most of this SSB operation is either on 20 or 40 meters. During US operations have worked stations in Japan, Okinawa, Hawaii, and with some help even Southern Rhodesia (all on 20 meters). On flights below the "border" we use 40 meters to get position reports home via the WCARS net on 7255. A fine bunch of operators.

Was air-mobiling two weeks ago to Grand Canyon, next week to eastern Wyoming for antelope hunting. Amateur Radio of course flies along as standard equipment on Bonanza N647T.

Vern, if anything above is of value, use it as you like. Am making an extensive flying vacation east next year during Bicentennial. Will turn around somewhere up in New England and start for home, maybe will overfly Kankakee. I remember your fair city during those long past years I was at Chanute Field, south of you.

73s and keep that fine Aeronautical Mobile section going."

You're a good man, Bill. Write again.

The FAA has just released their tabulation of the ten busiest airports in the country. They are:

Chicago's O'Hare	1
Santa Ana(CA)	2
Van Nuys(CA)	3
Long Beach(CA)	4
Hartsfield(Atlanta)	5
Los Angeles	6
Opa Locka(FL)	7
Torrance(CA)	8
Phoenix	9
San Jose(CA)	10

Once again, Kankakee didn't make it.

Our quote of the month comes from an operator right here in Kankakee who has been inactive for several years but nonetheless still holds his Technician Class license. The local newspaper ran a feature on him because he was very active with hot air balloons (in fact he holds a Commercial rating in one). The reporter wrote that the only problem he has run into is his ground-tracking, especially when rivers and lakes are crossed and the trackers in cars cannot keep up with him. He stated that this has been the only real problem experienced, but that will soon be remedied "with the addition of CB radio." Hmmmm.

So much for now. It's a shorty this month because of vacation. Doggone....I hate these stupid things always cutting into the routine of life yielding relaxation and rest. Can't stand 'em. They're evil. But nonetheless, maybe next month will be better. Send that news to me at 533 South Lincoln, Kankakee, IL 60901. Till then, out.

•

WØSBZ

OMAHA, NEBRASKA

MM *(continued from page 31)*

soon be conducted in San Francisco Bay. You will be the first to know of the results.

73 and good cruising.

Editorial note:

We look forward to the results of your tests, Jim. Anyone wishing a copy of the transceiver schematic, merely send a SASE in care of this column or get in touch with Jim.

Next month: Yacht racing and Amateur Radio. Til then, 73, Bill, WA6PIU.

Why be . . .

(continued from page 19)

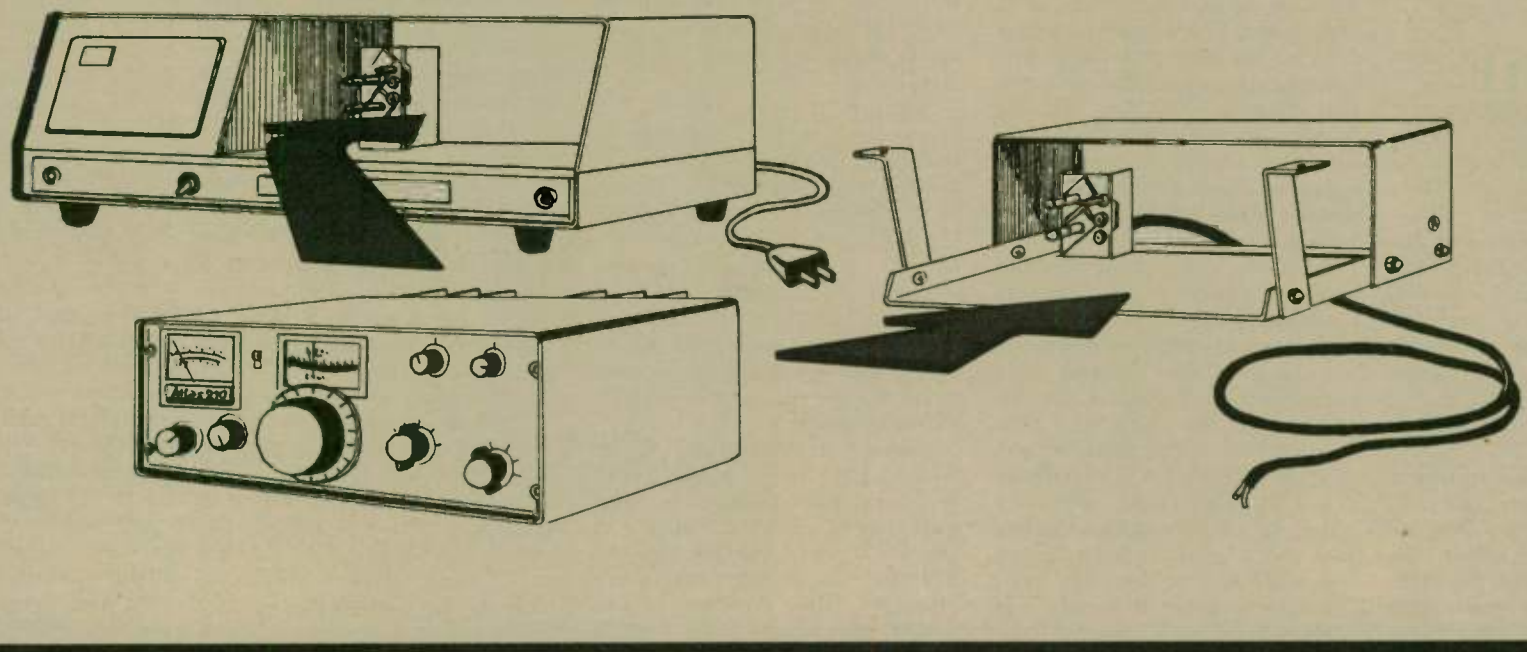
wife does too, is the set of casters I placed on the four corner posts of the cabinet frame.

By placing a set of caster wheels under the cabinet corner posts, the entire Radio Desk/Console Cabinet, fully loaded with equipment, can be rolled around the room for cleaning purposes and for that routine maintenance that we all have to perform at unexpected times.

To sum it up, my wife and I are both happy with our Communications Center in the living room where the entire family can share in the excitement of Amateur Radio. My six-year old boy talks on the rig with no hesitations and already shows an interest in kit building. He has asked to be taught the Morse code with code practice oscillator and tape recorder. Amateur Radio has been of great benefit to our family and we are all thankful.

A complete design package for the Radio Desk/Console Cabinet as described in this article is available as advertised. You will find the details in the classified section of this newspaper.

"QRX OM . . . Changing QTH . . .



. . . from ham shack to mobile. Will be back on in a minute."

This is one of the great features of the Atlas 210x/215x, the most versatile transceivers. It takes only seconds to slip the 7 pound midget out of the AC console, plug it into the mobile mount, and you're right back in the QSO.

It's only a midget in size, but in performance the rig is a real giant. With a solid 200 watts P.E.P. input you can easily work anyone you can hear, and the receiver offers you the ultimate in sensitivity, selectivity, and immunity to overload.

You have full coverage of all bands (except 10 meters, where coverage is 28.4 to 29.4 MHz). The Model 210x covers 10, 15, 20, 40, and 80 meters. The 215x covers 15, 20, 40, 80, and 160 meters.

MODEL 210x or 215x $649

MODEL 220-CS AC CONSOLE $139

MODEL 200-PS PORTABLE AC SUPPLY . . . . . $ 95

PLUG-IN MOBILE MOUNT . . . $ 44

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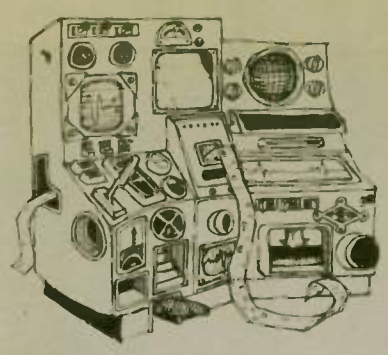

VHF-UHF

Lou Anciaux, WB6NMT

LATE FLASH

WA6LET EME tests for November will start at 0430 GMT, 23 November, and finish at 1530 GMT. WA6LET will transmit 432.100 MHz the first 30 seconds of each minute and will listen 432.000, minus approx. 5, to 432.075 during the last 30 seconds of each minute.

There will be a warm-up test at local noon on 31 October, 12-1 p.m. Pacific Standard Time, 2000 to 2100 GMT. Also, for liaison info **before** the test weekend, 3815 kHz 8:30 p.m. PDT, Sun. eves; 3970 kHz 9:30 p.m. CDT, Sun. eve; 14.300 MHz 1700 GMT, both Sat. & Sun.

Check next month's column for last minute changes, etc.

The September ARRL VHF contests are usually moderately well operated. This year, here in California, we had what appears to be an exceptional year. Several standing records were broken for this contest. In the East Bay sect. Carl Cook, WA6JUD, did an outstanding single op job with 13.6 K score from Mt. Diablo. The previous high was the one set by Jay O'Brien, W6GDO, in some distant past before Jay went FM only. Wayne Overbeck, K6YNB, from the Mt. Pinos location he has worked for eight years, managed well over 16 K for a new record.

Tropo conditions were quite decent for a change and many long haul contacts on 144 & 220 were made between Northern & Southern California. I managed a very excellent QSO from San Diego with Bruce Donecker, W6KQG, north of the Golden Gate.

In June several of us sent some gear to Arizona for 220 MHz. Only Wayne (K6YNB) was able to raise the station. This time the gear made its way over to Kingman, AZ and Lyle Henry, K9DKW/7, managed a few QSOs on 220 with the gear late Sunday. We had a rather decent path on 144, but the 220 path was vastly superior. Even off the side of his antenna, I could chat directly with Lyle on 220 SSB. On 144 the path was manageable only about 50% of time at best with weaker signals. Gary Frey, operating at his usual K6QEH location, managed 11 sections. Of course, compared to back East, that's poor for 144. But, on the other hand, not that many higher section scores include 500 plus miles to get the sections.

Dan Berg, WA7BJU, writes from his Oregon QTH of a rather impressive EME showing. To date he has captured 16 states via this half million mile route. His two-meter state total is 17, including his own. The list of calls he has worked gives one a good idea of the activity: K1WHS, W4WNH/8, K2RTH, W4DFK, WA6LET, WA7KYZ, WAØCHK, W8KPY, W5SID, VE2DFO, W6PO, K3PGP, WA2BIT, K9UIF, W7CNK, K8III, WB5LUA, W5ORH, WA5UNL, WA7BBM K9HMB and KØMQS. Danny was Dick Hart's 47th state on 144.

Tropo conditions across the Pacific have not been super, but have been able to obtain 500-1000 mile assists over the past month most of time. A Santa Ana, or hot off-shore wind, occurred about 21 September. This caused initially a drop in the local tropo duct between Los Angeles and San Diego. The path to OSCAR 7B also dropped to about 300 Miles max. extension. On the 24-25th the high began to abate and the resulting onshore flow returned things to normal.

While the start of the breakup was in progress, O-7B was available. Orbit 3929 was tried. I only obtained one minute of copy, hearing both the beacon and Katashi Nose, KH6IJ. I did not hear myself. At the time I was hearing Nose, the satellite was about 3100 miles (4975 KM) away. The next night pass of 0-7B I talked with Nose and found he had been able to copy me for well over five minutes that previous pass. The minute I heard signals was 0725Z.

The next day on orbit 3935 I lost my own sigs at 1939:30, and never did get them again. However, was able to get the beacon intermittently until 1945 GMT. The distances involved were 2770 mi. (4450 KM) for loss of own sigs, and 3600 mi. (5800 KM) for last beacon sigs. Initially I thought the lack of hearing myself, but hearing the beacon & Nose, was an indication that the tropo duct was very large, which did seem most likely in light of the very hot off-shore winds the preceding days. This large duct would mean a low MUF, and thus possibly the lack of 432 propagation.

However, after talking with Nose, his hearing me for some time tends to preclude that thinking. On 27 September, orbit 3954, Nose and I had a QSO which began at 0717 and ended about 3 minutes later. Sigs were still copiable here until 0726 GMT. The distance at start was about 3200 mi (5130 KM). During the entire QSO Nose was running anything from below noise to S2, very rapid QSB and difficult copy. All the while he was giving me S5-S7. I was able to hear myself weakly only a few times during our QSO.

From the above one can readily see the importance of having someone nearer the satellite when conducting tropo duct extensions. One other thing, most often when I initially lose sigs, which is after the satellite passes over horizon, it may take up to two minutes before sigs are heard again. I've noted others have lost their sigs in their own receivers, but I've had very good copy from them. I think the most important aspect of tropo duct assists is keeping with it long after you lose sigs. I'm sure many have also noted this on others. Even sigs from stations along the Eastern part of the US have been very good copy, while the guy is saying 73 and that sigs have gone. Keep with it for a couple of minutes longer and more of you may find you are able to gain a few hundred miles additional use.

As reported last month, some pending changes to the EME freqs, and schedule periods may be in the offing. However, as the subject is bantered about, several other ideas worthy of note have been brought up. Rather than a Universal Window, which is both Az & El variable, perhaps one which is GHA determined might be more appropriate? Such a window, such as 96 deg GHA, would require different motion by the users. Horizon mounted arrays do definitely have a place, and have been employed by both the Europeans as well as Japanese. The US horizon windows are pretty much in a special category now.

Another thought, which has been mentioned before, is somehow, someway, a means of helping the small EME station cope with the problem of fighting the big guns. In the same light almost, the sequencing period extension to 2½ mins. from 2 for 144 MHz, to match the 432 gang, is not especially appealing to the bigger stations on 144. They seem to favor a one min. sequence which might be better.

Perhaps a combination of the two might best handle both problems. For example, the small guys might operate primarily in the 144.05-144.1 portion and use 2½ mins. The big guys could more effectively use the one minute period, plus remain in the first 20 kHz or so. This is not to say they must remain in any one region of the band, but it would help align both types of stations to the particular operating characteristics most suitable to their capabilities.

All these are merely fodder for the thought machine. Get your ideas in so we can all be heard, and in the near future some decision may be made to give us all some guidelines, which hopefully will lessen the confusion level. Bear in mind also, these final guidelines are not ironclad rules but, rather, are very similar to the present procedures now existing for meteor scatter operation. As long as one remains in his own area, no problems. But, when you move to another area, or even point to a different direction, often another set of rules applies. Perhaps we might best consider this action a means of getting all EMEers under the same set of guidelines.

I trust those readers who do not have EME as their prime interest will indulge my predilection for this subject. What might appear to be a trivial matter to one who has not enjoyed EME, can be a rather grave disappointment. When one thinks he has completed a contact by this rather esoteric means, and of course is want to tell about it, it is most distressing to find out later it was not a complete two-way – the reason being a very simple problem, such as neglecting to send the Rogers, or some such thing.

In a completely different vein, many users of the VHF frequencies who are on the FM channels are well aware of some considerable crowding. Many other problems also exist. Some, such as the jammers and unlicensed operators, do pose a major problem in some areas. However, by far and large, the major problem is spectrum crowding.

Everywhere the cry is for more freqs. The major reason seems to be the 'very great need' for another repeater. The unfortunate part is that in many cases the need for this repeater is the need of just a very few. So, up goes another of the radios, and, often as not in the more populous areas, considerable QRM is the result. Just as often, when QRM does result, it can be dealt with by the concerned parties and all is well. In some cases, however, nearly all-out war results.

In some areas supposed groups are established to coordinate the freq. assignments. Ideally these are based upon present occupancy of the channels, intended coverage, overlapping coverage with other machines, etc., thru a long list of items. Unfortunately, there is evidence that in some instances no concern has been given to the above items. In other cases it appears the channel assignment was made on purely political reasons.

As more and more demand is placed, not only by us on our frequencies, but by the outside interests as well, we must be able to meet the demands. To meet them will require a vastly reorganized way of how we utilize our spectrum space. The key to our ability to hold onto what we have is through more effective spectrum utilization. Forget for the moment those grand ideas of a band every possible step from DC to Light. Just to retain our present assignments will be a minor accomplishment worthy of note by Kings and Emperors.

For example, to the question of more repeaters within a given area of frequency as well as geographical, only so many can be accomodated if they are all put on high hill tops, run maximum power, etc. However, if we consider smaller areas with limited coverage we may employ many more machines on the same freqs. without interference. Of course some considerable planning will be required. Likewise, the concept of covering just a limited area rather than everywhere within 200 miles must be learned.

This concept is presently employed in several variations by the commercial radio world. These unit cells, used to cover a limited region, do serve very well for what is a vast majority of present repeater traffic. The main effect is the more effective spectrum utilization that results. Many more conversations may be carried on at the same time than can be done with a few machines which cover everywhere.

Too long we amateurs have been in a following role. The time has come for us to get up and take the

(*please turn to page 12*)

New Larsen Magnetic Mount with super hold

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

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

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OSCAR AMSAT

AMSAT is going to hand out OSCARs. AMSAT announces a new operating award for satellite users, details as follows:

Purpose — The purpose of the award is to stimulate and maintain a continuing interest in satellite communications by providing recognition of continuing QSO accomplishments, AND to provide for recognition by AMSAT of special efforts and services by all radio amateurs.

Availability — The basic award is available for confirmed satellite contacts with either (1) 20 US states, Canadian call areas or countries, or a mixture thereof, or (2) six Australian call areas and two countries, or (3) any other requirements as specified by the AMSAT Board of Directors.

Notes — (1) All contracts made via any OSCAR spacecraft using any legal transmission mode are valid.

(2) QSL cards or other written confirmation of contacts must show that the QSO was via a satellite.

(3) In lieu of such QSL cards, applicants may submit a list of contacts confirmed by the awards manager of their national amateur radio society or AMSAT affiliate organization.

(4) All contacts must be made from the same QTH (within an area of 25 miles from a particular location).

(5) Sufficient postage must be supplied for the return of the QSL cards sent. The award is free to AMSAT members, and is available to nonmembers for the nominal fee of $1.00.

(6) Endorsements will be available for each ten (10) additional areas as defined in section (1) above.

(7) Send applications to AMSAT-Award Program, Box 27, Washington, DC 20044, USA.

—AMSAT Newsletter

The San Marino DXpedition

Piero "Pete" Moroni, I5TDJ

Luciano, I5FLN, and I went to San Marino as guests of Ceccoli Antonio, M1C; Giovanni Reffi, M1D; and Ivo Grandoni, M1I, taking our solid-state rig which worked very well. Unfortunately, the operation site, M1I's house, was screened from 270° to 0° by Titeno Hill, the hill that San Marino is located on, so we were unable to work the VE and W stations that we heard. For the other directions there were no nearby hills, and we succeeded in working V. Subramanian, Vu-2UV, with the satellite at 0° elevation.

The San Marino boys were very friendly, and Ivo's, M1I, XYL was very patient during her house "invasion"!

Tony, M1C, is interested in joining the satellite users ranks, and intends to build some VHF gear for this purpose (at present there is no VHF gear whatsoever in San Marino). I shall be helping, and thus should get a chance to work San Marino myself in the future!

Operations were made under the M1C call on Saturday 4 January, and under M1I on Sunday 5 January, and the following were worked:

4 January, M1C. OSCAR 7 - Mode 'B' 432/145 MHz. Orbit 627: I1TEX, F9FT, DJ2RE, I5ARS, all 2xCW. OSCAR 6 - Orbit 10158: CN8BO (2xSSB), I5ARS, G3IOR, I5CTE, all 2xCW.

5 January, M1I. (No OSCAR 6 QSO's as it was off all orbits) OSCAR 7 - Mode 'A' 145/29 MHz. Orbit 635: G8GP, OH2RK, G3IOR all 2xCW, G31OR (2xSSB), OK1BMW (2xCW) Orbit 639: VU2UV (2xCW), I5CTE (2xSSB), OK3ØCDI, OK3ØBDS, OH-2RK, G3IOR, ON4DY, G3-PEJ, all 2xCW.

The rig used was 40w. CW/SSB on 145/29; varactor tripler, 20w. out for 70 cm. Rx: Solid state with 145 MHz. converter; Antennas: 10 el. Yagi for 432 MHz. (vertically mounted) - 2x5 el. crossed Yagis for 145 MHz. - 2 el. quad for 29 MHz. (M1I's).

I did not find much of a "pile-up" - my feeling is that many satellite users prefer to stay on one frequency and call "CQ", perhaps a behavior common to VHF men. Several stations called CQ on our frequency and did not get our call when he answered them - bad Rx's or local noise?

QSL's for M1C go via his QSL manager Fausto Minardi, I4EAT. M1I's go via Roberto Carignano, IØBNZ. We greatly enjoyed the mild pleasant Wx, and visiting the town. I believe you know the place if you have been on holiday on the Adriatic Sea.

The famous "Murphey's Law" hit us, but not on the radio equipment. On the trip back to Florence on the Bologna-Florence autostrada, the oil pressure lamp came on the car and we were towed by an emergency vehicle off the expressway to have it fixed in 15 minutes at a repair shop. Five kilometres from Florence we stopped again, when my home-made electronic ignition system blew out after seven years of faithful service. We arrived back home from the 220 Km. trip after four and a half hours!

—AMSAT Newsletter

WA4JID/MM trip report

Richard Long, WA4JID

Equipment used: KLM Echo 2 - 10 watts to a 5/8 wave whip or 7-element beam, SB-303 receiver, Hustler vertical (with 20-meter coil).

Very successful trip. All systems operated as expected. No problems accessing AO-6 or AO-7. It was easier to access AO-7 much of the time, believe it or not!

Would have been on more often but had some boat problems that preoccupied my time. Was able to access under sail in ocean on SSB via AO-6, but nobody answered!

Another interesting fact - even with simple vertical antennas and low power, I was able to get usable signals right to LOS when I was in the water with no land to horizon. When there was land around, "birds" had to be about 20° up for access.

Also, I hereby lay claim to first mobile-on-a-sailboat contacts on AO-6 and AO-7. Also, all equipment was completely battery operated.

—AMSAT Newsletter

Radio Society of Kenya

R. Geary, 5Z4NH
Hon. Secretary

About twelve amateurs are getting together a set of 2 meter transmitters and are going to start to get on the air with a local net.

There is a Rose Bowl Cup, called the Jeremy Award, that will be awarded to the first person in Kenya to secure a 2M contact with someone outside of the African continent. There are two of these cups. One will be given to the local amateur and the other will be given to the person who makes the contact from outside of the continent. The method is by any means, moon bounce, OSCAR 7, direct or bouncing it off of your shoe, if that will work.

Peter Peham, 5Z4JJ, has succeeded in getting a signal into OSCAR 7, but due to the fact that no one was listening at his lower frequency he got no reply as yet. We did copy him here on the 10 meter link.

5Z4PO has the equipment but lacks the proper crystal to get into OSCAR 7, but soon PO is Al Woodward.

As we do get more activity, I shall let you know.

—AMSAT Newsletter

Mart (continued from page 48)

(please turn to page 10)

NOVEMBER — AMSAT-OSCAR 6

Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday

OSCAR 6 OPERATING SCHEDULE

Present schedule calls for Oscar 6 to be operational (145.9-146.0 MHz to 29.45-.55 MHz) on Sunday morning and evening, Wednesday and Friday evenings local time (Monday, Thursday, and Saturday mornings and Sunday evening GMT). Do not use Oscar 6 at other times even though it may be turned on. Latest information may be obtained on the AmSat nets, Sunday 1800 GMT on 14.280 MHz and 1900 GMT on 21.280 MHz from the Washington, D. C., USA area.

OSCAR 6 TELEMETRY AT 29.45 MHz

SAT 1 NOV 1975 (305)

ORBIT	ASCENDING TIME	NODE LONG
13917	01:29:2[illegible]	[illegible]3.3
13918	03:24:20	102.1
13919	05:19:19	130.8
13920	07:14:19	159.5
13921	09:09:19	188.3
13922	11:04:19	217.0
13923	12:59:18	245.8
13924	14:54:18	274.5
13925	16:49:18	303.3
13926	18:44:17	332.0
13927	20:39:17	.8
13928	22:34:17	29.5

SUN 2 NOV 1975 (306)

ORBIT	ASCENDING TIME	NODE LONG
13929	00:29:16	58.3
13930	02:24:16	87.0
13931	04:19:16	115.8
13932	06:14:15	144.5
13933	08:09:15	173.3
13934	10:04:15	202.0
13935	11:59:14	230.8
13936	13:54:14	259.5
13937	15:49:14	288.3
13938	17:44:13	317.0
13939	19:39:13	345.8
13940	21:34:13	14.5
13941	23:29:12	43.3

MON 3 NOV 1975 (307)

ORBIT	ASCENDING TIME	NODE LONG
13942	01:24:12	72.0
13943	03:19:12	100.8
13944	05:14:11	129.5
13945	07:09:11	158.3
13946	09:04:11	187.0
13947	10:59:10	215.8
13948	12:54:10	244.5
13949	14:49:10	273.3
13950	16:44:09	302.0
13951	18:39:09	330.8
13952	20:34:09	359.5
13953	22:29:08	28.3

TUES 4 NOV 1975 (308)

ORBIT	ASCENDING TIME	NODE LONG
13954	00:24:08	57.0
13955	02:19:08	85.8
13956	04:14:07	114.5
13957	06:09:07	143.3
13958	08:04:07	172.0
13959	09:59:06	200.8
13960	11:54:06	229.5
13961E	13:49:06	258.3
13962E	15:44:05	287.0
13963	17:39:05	315.8
13964	19:34:05	344.5
13965	21:29:04	13.3
13966	23:24:04	42.0

WED 5 NOV 1975 (309)

ORBIT	ASCENDING TIME	NODE LONG
13967	01:19:04	70.8
13968	03:14:03	99.5
13969	05:09:03	128.3
13970	07:04:03	157.0
13971	08:59:03	185.7
13972	10:54:02	214.5
13973	12:49:02	243.2
13974	14:44:02	272.0
13975	16:39:01	300.7
13976	18:34:01	329.5
13977	20:29:01	358.2
13978	22:24:00	27.0

THUR 6 NOV 1975 (310)

ORBIT	ASCENDING TIME	NODE LONG
13979	00:19:00	55.7
13980	02:14:00	84.5
13981	04:08:59	113.2
13982	06:03:59	142.0
13983	07:58:59	170.7
13984	09:53:58	199.5
13985	11:48:58	228.2
13986E	13:43:58	257.0
13987E	15:38:57	285.7
13988	17:33:57	314.5
13989	19:28:57	343.2
13990	21:23:56	12.0
13991	23:18:56	40.7

FRI 7 NOV 1975 (311)

ORBIT	ASCENDING TIME	NODE LONG
13992	01:13:56	69.5
13993	03:08:55	98.2
13994	05:03:55	127.0
13995	06:58:55	155.7
13996	08:53:54	184.5
13997	10:48:54	213.2
13998	12:43:54	242.0
13999	14:38:53	270.7
14000	16:33:53	299.5
14001	18:28:53	328.2
14002	20:23:52	357.0
14003	22:18:52	25.7

SAT 8 NOV 1975 (312)

ORBIT	ASCENDING TIME	NODE LONG
14004	00:13:52	54.5
14005	02:08:51	83.2
14006	04:03:51	112.0
14007	05:58:51	140.7
14008	07:53:50	169.5
14009	09:48:50	198.2
14010	11:43:50	227.0
14011	13:38:49	255.7
14012	15:33:49	284.5
14013	17:28:49	313.2
14014	19:23:48	342.0
14015	21:18:48	10.7
14016	23:13:48	39.5

SUN 9 NOV 1975 (313)

ORBIT	ASCENDING TIME	NODE LONG
14017	01:08:47	68.2
14018	03:03:47	97.0
14019	04:58:47	125.7
14020	06:53:47	154.4
14021	08:48:46	183.2
14022	10:43:46	211.9
14023	12:38:46	240.7
14024	14:33:45	269.4
14025	16:28:45	298.2
14026	18:23:45	326.9
14027	20:18:44	355.7
14028	22:13:44	24.4

MON 10 NOV 1975 (314)

ORBIT	ASCENDING TIME	NODE LONG
14029	00:08:44	53.2
14030	02:03:43	81.9
14031	03:58:43	110.7
14032	05:53:43	139.4
14033	07:48:42	168.2
14034	09:43:42	196.9
14035	11:38:42	225.7
14036E	13:33:41	254.4
14037E	15:28:41	283.2
14038	17:23:41	311.9
14039	19:18:40	340.7
14040	21:13:40	9.4
14041	23:08:40	38.2

TUES 11 NOV 1975 (315)

ORBIT	ASCENDING TIME	NODE LONG
14042	01:03:39	66.9
14043	02:58:39	95.7
14044	04:53:39	124.4
14045	06:48:38	153.2
14046	08:43:38	181.9
14047	10:38:38	210.7
14048	12:33:37	239.4
14049	14:28:37	268.2
14050	16:23:37	296.9
14051	18:18:36	325.7
14052	20:13:36	354.4
14053	22:08:36	23.2

WED 12 NOV 1975 (316)

ORBIT	ASCENDING TIME	NODE LONG
14054	00:03:35	51.9
14055	01:58:35	80.7
14056	03:53:35	109.4
14057	05:48:34	138.2
14058	07:43:34	166.9
14059	09:38:34	195.7
14060	11:33:33	224.4
14061E	13:28:33	253.2
14062E	15:23:33	281.9
14063	17:18:32	310.7
14064	19:13:32	339.4
14065	21:08:32	8.2
14066	23:03:32	36.9

THUR 13 NOV 1975 (317)

ORBIT	ASCENDING TIME	NODE LONG
14067	00:58:31	65.7
14068	02:53:31	94.4
14069	04:48:31	123.2
14070	06:43:30	151.9
14071	08:38:30	180.6
14072	10:33:30	209.4
14073	12:28:29	238.1
14074	14:23:29	266.9
14075	16:18:29	295.6
14076	18:13:28	324.4
14077	20:08:28	353.1
14078	22:03:28	21.9
14079	23:58:27	50.6

FRI 14 NOV 1975 (318)

ORBIT	ASCENDING TIME	NODE LONG
14080	01:53:27	79.4
14081	03:48:27	108.1
14082	05:43:26	136.9
14083	07:38:26	165.6
14084	09:33:26	194.4
14085	11:28:25	223.1
14086E	13:23:25	251.9
14087E	15:18:25	280.6
14088	17:13:24	309.4
14089	19:08:24	338.1
14090	21:03:24	6.9
14091	22:58:23	35.6

SAT 15 NOV 1975 (319)

ORBIT	ASCENDING TIME	NODE LONG
14092	00:53:23	64.4
14093	02:48:23	93.1
14094	04:43:22	121.9
14095	06:38:22	150.6
14096	08:33:22	179.4
14097	10:28:21	208.1
14098	12:23:21	236.9
14099	14:18:21	265.6
14100	16:13:20	294.4
14101	18:08:20	323.1
14102	20:03:20	351.9
14103	21:58:19	20.6
14104	23:53:19	49.4

SUN 16 NOV 1975 (320)

ORBIT	ASCENDING TIME	NODE LONG
14105	01:48:19	78.1
14106	03:43:18	106.9
14107	05:38:18	135.6
14108	07:33:18	164.4
14109	09:28:17	193.1
14110	11:23:17	221.9
14111	13:18:17	250.6
14112	15:13:16	279.4
14113	17:08:16	308.1
14114	19:03:16	336.9
14115	20:58:16	5.6
14116	22:53:15	34.4

MON 17 NOV 1975 (321)

ORBIT	ASCENDING TIME	NODE LONG
14117	00:48:15	63.1
14118	02:43:15	91.9
14119	04:38:14	120.6
14120	06:33:14	149.4
14121	08:28:14	178.1
14122	10:23:13	206.8
14123	12:18:13	235.6
14124	14:13:13	264.3
14125	16:08:12	293.1
14126	18:03:12	321.8
14127	19:58:12	350.6
14128	21:53:11	19.3
14129	23:48:11	48.1

TUES 18 NOV 1975 (322)

ORBIT	ASCENDING TIME	NODE LONG
14130	01:43:11	76.8
14131	03:38:10	105.6
14132	05:33:10	134.3
14133	07:28:10	163.1
14134	09:23:09	191.8
14135	11:18:09	220.6
14136	13:13:09	249.3
14137E	15:08:08	278.1
14138	17:03:08	306.8
14139	18:58:08	335.6
14140	20:53:07	4.3
14141	22:48:07	33.1

WED 19 NOV 1975 (323)

ORBIT	ASCENDING TIME	NODE LONG
14142	00:43:07	61.8
14143	02:38:06	90.6
14144	04:33:06	119.3
14145	06:28:06	148.1
14146	08:23:05	176.8
14147	10:18:05	205.6
14148	12:13:05	234.3
14149	14:08:04	263.1
14150	16:03:04	291.8
14151	17:58:04	320.6
14152	19:53:03	349.3
14153	21:48:03	18.1
14154	23:43:03	46.8

THUR 20 NOV 1975 (324)

ORBIT	ASCENDING TIME	NODE LONG
14155	01:38:02	75.6
14156	03:33:02	104.3
14157	05:28:02	133.1
14158	07:23:01	161.8
14159	09:18:01	190.6
14160	11:13:01	219.3
14161	13:08:00	248.1
14162E	15:03:00	276.8
14163	16:58:00	305.6
14164	18:53:00	334.3
14165	20:47:59	3.1
14166	22:42:59	31.8

FRI 21 NOV 1975 (325)

ORBIT	ASCENDING TIME	NODE LONG
14167	00:37:59	60.6
14168	02:32:58	89.3
14169	04:27:58	118.1
14170	06:22:58	146.8
14171	08:17:57	175.5
14172	10:12:57	204.3
14173	12:07:57	233.0
14174	14:02:56	261.8
14175	15:57:56	290.5
14176	17:52:56	319.3
14177	19:47:55	348.0
14178	21:42:55	16.8
14179	23:37:55	45.5

SAT 22 NOV 1975 (326)

ORBIT	ASCENDING TIME	NODE LONG
14180	01:32:54	74.3
14181	03:27:54	103.0
14182	05:22:54	131.8
14183	07:17:53	160.5
14184	09:12:53	189.3
14185	11:07:53	218.0
14186	13:02:52	246.8
14187	14:57:52	275.5
14188	16:52:52	304.3
14189	18:47:51	333.0
14190	20:42:51	1.8
14191	22:37:51	30.5

SUN 23 NOV 1975 (327)

ORBIT	ASCENDING TIME	NODE LONG
14192	00:32:50	59.3
14193	02:27:50	88.0
14194	04:22:50	116.8
14195	06:17:49	145.5
14196	08:12:49	174.3
14197	10:07:49	203.0
14198	12:02:48	231.8
14199	13:57:48	260.5
14200	15:52:48	289.3
14201	17:47:47	318.0
14202	19:42:47	346.8
14203	21:37:47	15.5
14204	23:32:46	44.3

MON 24 NOV 1975 (328)

ORBIT	ASCENDING TIME	NODE LONG
14205	01:27:46	73.0
14206	03:22:46	101.8
14207	05:17:45	130.5
14208	07:12:45	159.3
14209	09:07:45	188.0
14210	11:02:44	216.8
14211	12:57:44	245.5
14212E	14:52:44	274.3
14213E	16:47:44	303.0
14214	18:42:43	331.8
14215	20:37:43	.5
14216	22:32:43	29.3

TUES 25 NOV 1975 (329)

ORBIT	ASCENDING TIME	NODE LONG
14217	00:27:42	58.0
14218	02:22:42	86.8
14219	04:17:42	115.5
14220	06:12:41	144.2
14221	08:07:41	173.0
14222	10:02:41	201.7
14223	11:57:40	230.5
14224	13:52:40	259.2
14225	15:47:40	288.0
14226	17:42:39	316.7
14227	19:37:39	345.5
14228	21:32:39	14.2
14229	23:27:38	43.0

WED 26 NOV 1975 (330)

ORBIT	ASCENDING TIME	NODE LONG
14230	01:22:38	71.7
14231	03:17:38	100.5
14232	05:12:37	129.2
14233	07:07:37	158.0
14234	09:02:37	186.7
14235	10:57:36	215.5
14236	12:52:36	244.2
14237E	14:47:36	273.0
14238E	16:42:35	301.7
14239	18:37:35	330.5
14240	20:32:35	359.2
14241	22:27:34	28.0

THUR 27 NOV 1975 (331)

ORBIT	ASCENDING TIME	NODE LONG
14242	00:22:34	56.7
14243	02:17:34	85.5
14244	04:12:33	114.2
14245	06:07:33	143.0
14246	08:02:33	171.7
14247	09:57:32	200.5
14248	11:52:32	229.2
14249	13:47:32	258.0
14250	15:42:31	286.7
14251	17:37:31	315.5
14252	19:32:31	344.2
14253	21:27:30	13.0
14254	23:22:30	41.7

FRI 28 NOV 1975 (332)

ORBIT	ASCENDING TIME	NODE LONG
14255	01:17:30	70.5
14256	03:12:29	99.2
14257	05:07:29	128.0
14258	07:02:29	156.7
14259	08:57:29	185.5
14260	10:52:28	214.2
14261	12:47:28	243.0
14262E	14:42:28	271.7
14263E	16:37:27	300.5
14264	18:32:27	329.2
14265	20:27:27	358.0
14266	22:22:26	26.7

SAT 29 NOV 1975 (333)

ORBIT	ASCENDING TIME	NODE LONG
14267	00:17:26	55.5
14268	02:12:26	84.2
14269	04:07:25	113.0
14270	06:02:25	141.7
14271	07:57:25	170.4
14272	09:52:24	199.2
14273	11:47:24	227.9
14274	13:42:24	256.7
14275	15:37:23	285.4
14276	17:32:23	314.2
14277	19:27:23	342.9
14278	21:22:22	11.7
14279	23:17:22	40.4

NOVEMBER — AMSAT-OSCAR 7

Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday

OSCAR 7 OPERATING SCHEDULE

Present schedule calls for Mode A (145.85-.95 MHz to 29.40-.50 MHz) on odd-numbered days of the year, Mode B (432.125-.175 MHz to 145.975-.925 MHz) on even-numbered days. Mode is indicated in the orbit number. An "X" in the orbit number indicates that the satellite is reserved for experiments and educational use. Users are requested not to transmit on X-orbits even though the satellite is turned on. Latest information may be obtained on the AmSat nets, Sunday 1800 GMT on 14.280 MHz and 1900 GMT on 21.280 MHz from the Washington, D. C., USA area.

OSCAR 7 TELEMETRY AT 435.10 MHz and either 29.50 MHz (Mode A) or 145.975 MHz (Mode B)

SAT 1 NOV 1975 (305)

ORBIT	ASCENDING TIME	NODE LONG
4389A	00:34:[illegible]	[illegible].5
4390A	02:29:3[illegible]	[illegible]7.2
4391A	04:24:[illegible]	116.0
4392A	06:19:26	144.7
4393A	08:14:23	173.4
4394A	10:09:[illegible]	202.2
4395A	12:04:16	230.9
4396A	13:59:13	259.6
4397A	15:54:10	[illegible].4
4398A	17:49:06	[illegible].1
4399A	19:44:03	345.8
4400A	21:39:[illegible]	14.6
4401A	23:33:[illegible]	43.3

SUN 2 NOV 1975 (306)

ORBIT	ASCENDING TIME	NODE LONG
4402B	01:28:53	72.1
4403B	03:23:50	100.8
4404B	05:18:47	129.5
4405B	07:13:43	158.3
4406B	09:08:40	187.0
4407B	11:03:37	215.7
4408B	12:58:33	244.5
4409B	14:53:30	273.2
4410B	16:48:27	301.9
4411B	18:43:23	330.7
4412B	20:38:20	359.4
4413B	22:33:17	28.1

MON 3 NOV 1975 (307)

ORBIT	ASCENDING TIME	NODE LONG
4414A	00:28:14	56.9
4415A	02:23:10	85.6
4416A	04:18:07	114.4
4417A	06:13:04	143.1
4418A	08:08:00	171.8
4419A	10:02:57	200.6
4420A	11:57:54	229.3
4421A	13:52:50	258.0
4422A	15:47:47	286.8
4423A	17:42:44	315.5
4424A	19:37:41	344.2
4425A	21:32:37	13.0
4426A	23:27:34	41.7

TUES 4 NOV 1975 (308)

ORBIT	ASCENDING TIME	NODE LONG
4427B	01:22:31	70.5
4428B	03:17:27	99.2
4429B	05:12:24	127.9
4430B	07:07:21	156.7
4431B	09:02:17	185.4
4432B	10:57:14	214.1
4433B	12:52:11	242.9
4434B	14:47:08	271.6
4435B	16:42:04	300.3
4436B	18:37:01	329.1
4437B	20:31:58	357.8
4438B	22:26:54	26.6

WED 5 NOV 1975 (309)

ORBIT	ASCENDING TIME	NODE LONG
4439AX	00:21:51	55.3
4440AX	02:16:48	84.0
4441AX	04:11:44	112.8
4442AX	06:06:41	141.5
4443AX	08:01:38	170.2
4444AX	09:56:35	199.0
4445AX	11:51:31	227.7
4446AX	13:46:28	256.4
4447AX	15:41:25	285.2
4448AX	17:36:21	313.9
4449AX	19:31:18	342.7
4450AX	21:26:15	11.4
4451AX	23:21:11	40.1

THUR 6 NOV 1975 (310)

ORBIT	ASCENDING TIME	NODE LONG
4452B	01:16:08	68.9
4453B	03:11:05	97.6
4454B	05:06:02	126.3
4455B	07:00:58	155.1
4456B	08:55:55	183.8
4457B	10:50:52	212.5
4458B	12:45:48	241.3
4459B	14:40:45	270.0
4460B	16:35:42	298.8
4461B	18:30:38	327.5
4462B	20:25:35	356.2
4463B	22:20:32	25.0

FRI 7 NOV 1975 (311)

ORBIT	ASCENDING TIME	NODE LONG
4464A	00:15:29	53.7
4465A	02:10:25	82.4
4466A	04:05:22	111.2
4467A	06:00:19	139.9
4468A	07:55:15	168.6
4469A	09:50:12	197.4
4470A	11:45:09	226.1
4471A	13:40:05	254.9
4472A	15:35:02	283.6
4473A	17:29:59	312.3
4474A	19:24:56	341.1
4475A	21:19:52	9.8
4476A	23:14:49	38.5

SAT 8 NOV 1975 (312)

ORBIT	ASCENDING TIME	NODE LONG
4477B	01:0[illegible]:[illegible]	[illegible]
4478B	03:04:4[illegible]	[illegible]
4479B	04:59:3[illegible]	1[illegible].7
4480B	06:54:3[illegible]	1[illegible].5
4481B	08:49:3[illegible]	1[illegible].2
4482B	10:44:2[illegible]	[illegible].9
4483B	12:39:26	[illegible].7
4484B	14:34:23	[illegible].4
4485B	16:29:1[illegible]	[illegible].2
4486B	18:24:16	[illegible].0
4487B	20:19:13	35[illegible].6
4488B	22:14:[illegible]	2[illegible].4

SUN 9 NOV 1975 (313)

ORBIT	ASCENDING TIME	NODE LONG
4489A	00:09:06	52.1
4490A	02:04:03	80.8
4491A	03:58:59	109.6
4492A	05:53:56	138.3
4493A	07:48:53	167.0
4494A	09:43:50	195.8
4495A	11:38:46	224.5
4496A	13:33:43	253.3
4497A	15:28:40	282.0
4498A	17:23:36	310.7
4499A	19:18:33	339.5
4500A	21:13:30	8.2
4501A	23:08:26	36.9

MON 10 NOV 1975 (314)

ORBIT	ASCENDING TIME	NODE LONG
4502B	01:03:23	65.7
4503B	02:58:20	94.4
4504B	04:53:17	123.1
4505B	06:48:13	151.9
4506B	08:43:10	180.6
4507B	10:38:07	209.4
4508B	12:33:03	238.1
4509B	14:28:00	266.8
4510B	16:22:57	295.6
4511B	18:17:53	324.3
4512B	20:12:50	353.0
4513B	22:07:47	21.8

WED 12 NOV 1975 (316)

ORBIT	ASCENDING TIME	NODE LONG
4527BX	00:57:01	64.1
4528BX	02:51:57	92.8
4529BX	04:46:54	121.6
4530BX	06:41:51	150.3
4531BX	08:36:47	179.0
4532BX	10:31:44	207.8
4533BX	12:26:41	236.5
4534BX	14:21:38	265.2
4535BX	16:16:34	294.0
4536BX	18:11:31	322.7
4537BX	20:06:28	351.4
4538BX	22:01:24	20.2
4539BX	23:56:21	48.9

TUES 11 NOV 1975 (315)

ORBIT	ASCENDING TIME	NODE LONG
4514A	00:02:44	50.5
4515A	01:57:40	79.2
4516A	03:52:37	108.0
4517A	05:47:34	136.7
4518A	07:42:30	165.5
4519A	09:37:27	194.2
4520A	11:32:24	222.9
4521A	13:27:20	251.7
4522A	15:22:17	280.4
4523A	17:17:14	309.1
4524A	19:12:11	337.9
4525A	21:07:07	6.6
4526A	23:02:04	35.3

THUR 13 NOV 1975 (317)

ORBIT	ASCENDING TIME	NODE LONG
4540A	01:51:18	77.7
4541A	03:46:14	106.4
4542A	05:41:11	135.1
4543A	07:36:08	163.9
4544A	09:31:05	192.6
4545A	11:26:01	221.3
4546A	13:20:58	250.1
4547A	15:15:55	278.8
4548A	17:10:51	307.5
4549A	19:05:48	336.3
4550A	21:00:45	5.0
4551A	22:55:41	33.7

FRI 14 NOV 1975 (318)

ORBIT	ASCENDING TIME	NODE LONG
4552B	00:50:38	62.5
4553B	02:45:35	91.2
4554B	04:40:32	120.0
4555B	06:35:28	148.7
4556B	08:30:25	177.4
4557B	10:25:22	206.2
4558B	12:20:18	234.9
4559B	14:15:15	263.6
4560B	16:10:12	292.4
4561B	18:05:08	321.1
4562B	20:00:05	349.8
4563B	21:55:02	18.6
4564B	23:49:59	47.3

SAT 15 NOV 1975 (319)

ORBIT	ASCENDING TIME	NODE LONG
4565A	01:44:[illegible]	76.1
4566A	03:39:[illegible]	104.8
4567A	0[illegible]:34:49	133.5
4568A	[illegible]:29:45	162.3
4569A	[illegible]:24:4[illegible]	191.0
4570A	11:19:39	219.7
4571A	13:14:35	248.5
4572A	1[illegible]:0[illegible]:3[illegible]	277.2
4573A	17:0[illegible]:[illegible]	305.9
4574A	18:59:26	3[illegible].7
4575A	20:54:2[illegible]	[illegible].6
4576A	[illegible]:49:19	32.2

SUN 16 NOV 1975 (320)

ORBIT	ASCENDING TIME	NODE LONG
4577B	00:44:16	60.9
4578B	02:39:12	89.6
4579B	04:34:09	118.4
4580B	06:29:06	147.1
4581B	08:24:02	175.8
4582B	10:18:59	204.6
4583B	12:13:56	233.3
4584B	14:08:53	262.0
4585B	16:03:49	290.8
4586B	17:58:46	319.5
4587B	19:53:43	348.3
4588B	21:48:39	17.0
4589B	23:43:36	45.7

MON 17 NOV 1975 (321)

ORBIT	ASCENDING TIME	NODE LONG
4590A	01:38:33	74.5
4591A	03:33:29	103.2
4592A	05:28:26	131.9
4593A	07:23:23	160.7
4594A	09:18:20	189.4
4595A	11:13:16	218.1
4596A	13:08:13	246.9
4597A	15:03:10	275.6
4598A	16:58:06	304.4
4599A	18:53:03	333.1
4600A	20:48:00	1.8
4601A	22:42:56	30.6

TUES 18 NOV 1975 (322)

ORBIT	ASCENDING TIME	NODE LONG
4602B	00:37:53	59.3
4603B	02:32:50	88.0
4604B	04:27:47	116.8
4605B	06:22:43	145.5
4606B	08:17:40	174.2
4607B	10:12:37	203.0
4608B	12:07:33	231.7
4609B	14:02:30	260.5
4610B	15:57:27	289.2
4611B	17:52:23	317.9
4612B	19:47:20	346.7
4613B	21:42:17	15.4
4614B	23:37:14	44.1

WED 19 NOV 1975 (323)

ORBIT	ASCENDING TIME	NODE LONG
4615AX	01:32:10	72.9
4616AX	03:27:07	101.6
4617AX	05:22:04	130.3
4618AX	07:17:00	159.1
4619AX	09:11:57	187.8
4620AX	11:06:54	216.6
4621AX	13:01:50	245.3
4622AX	14:56:47	274.0
4623AX	16:51:44	302.8
4624AX	18:46:41	331.5
4625AX	20:41:37	.2
4626AX	22:36:34	29.0

THUR 20 NOV 1975 (324)

ORBIT	ASCENDING TIME	NODE LONG
4627B	00:31:31	57.7
4628B	02:26:27	86.4
4629B	04:21:24	115.2
4630B	06:16:21	143.9
4631B	08:11:17	172.6
4632B	10:06:14	201.4
4633B	12:01:11	230.1
4634B	13:56:08	258.9
4635B	15:51:04	287.6
4636B	17:46:01	316.3
4637B	19:40:58	345.1
4638B	21:35:54	13.8
4639B	23:30:51	42.5

FRI 21 NOV 1975 (325)

ORBIT	ASCENDING TIME	NODE LONG
4640A	01:25:48	71.3
4641A	03:20:44	100.0
4642A	05:15:41	128.7
4643A	07:10:38	157.5
4644A	09:05:35	186.2
4645A	11:00:31	215.0
4646A	12:55:28	243.7
4647A	14:50:25	272.4
4648A	16:45:21	301.2
4649A	18:40:18	329.9
4650A	20:35:15	358.6
4651A	22:30:11	27.4

SAT 22 NOV 1975 (326)

ORBIT	ASCENDING TIME	NODE LONG
4652B	00:25:[illegible]	56.1
4653B	[illegible]	84.8
4654B	04:15:02	113.6
4655B	[illegible]:09:5[illegible]	142.3
4656B	[illegible]:[illegible]:55	171.1
4657B	[illegible]:59:5[illegible]	199.8
4658B	11:54:4[illegible]	228.5
4659B	13:49:45	257.3
4660B	15:44:42	286.0
4661B	17:39:38	314.7
4662B	19:34:35	343.5
4663B	21:29:32	12.2
4664B	23:24:29	40.9

SUN 23 NOV 1975 (327)

ORBIT	ASCENDING TIME	NODE LONG
4665A	01:19:25	69.7
4666A	03:14:22	98.4
4667A	05:09:19	127.2
4668A	07:04:15	155.9
4669A	08:59:12	184.6
4670A	10:54:09	213.4
4671A	12:49:05	242.1
4672A	14:44:02	270.8
4673A	16:38:59	299.6
4674A	18:33:56	328.3
4675A	20:28:52	357.0
4676A	22:23:49	25.8

MON 24 NOV 1975 (328)

ORBIT	ASCENDING TIME	NODE LONG
4677B	00:18:46	54.5
4678B	02:13:42	83.3
4679B	04:08:39	112.0
4680B	06:03:36	140.7
4681B	07:58:32	169.5
4682B	09:53:29	198.2
4683B	11:48:26	226.9
4684B	13:43:23	255.7
4685B	15:38:19	284.4
4686B	17:33:16	313.1
4687B	19:28:13	341.9
4688B	21:23:09	10.6
4689B	23:18:06	39.4

TUES 25 NOV 1975 (329)

ORBIT	ASCENDING TIME	NODE LONG
4690A	01:11:03	68.1
4691A	03:07:59	96.8
4692A	05:02:56	125.6
4693A	06:57:53	154.3
4694A	08:52:50	183.0
4695A	10:47:46	211.8
4696A	12:42:43	240.5
4697A	14:37:40	269.2
4698A	16:32:36	298.0
4699A	18:27:33	326.7
4700A	20:22:30	355.4
4701A	22:17:26	24.2

WED 26 NOV 1975 (330)

ORBIT	ASCENDING TIME	NODE LONG
4702BX	00:12:23	52.9
4703BX	02:07:20	81.7
4704BX	04:02:17	110.4
4705BX	05:57:13	139.1
4706BX	07:52:10	167.9
4707BX	09:47:07	196.6
4708BX	11:42:03	225.3
4709BX	13:37:00	254.1
4710BX	15:31:57	282.8
4711BX	17:26:53	311.5
4712BX	19:21:50	340.3
4713BX	21:16:47	9.0
4714BX	23:11:44	37.8

THUR 27 NOV 1975 (331)

ORBIT	ASCENDING TIME	NODE LONG
4715A	01:06:40	66.5
4716A	03:01:37	95.2
4717A	04:56:34	124.0
4718A	06:51:30	152.7
4719A	08:46:27	181.4
4720A	10:41:24	210.2
4721A	12:36:20	238.9
4722A	14:31:17	267.6
4723A	16:26:14	296.4
4724A	18:21:11	325.1
4725A	20:16:07	353.9
4726A	22:11:04	22.6

FRI 28 NOV 1975 (332)

ORBIT	ASCENDING TIME	NODE LONG
4727B	00:06:01	51.3
4728B	02:00:57	80.1
4729B	03:55:54	108.8
4730B	05:50:51	137.5
4731B	07:45:47	166.3
4732B	09:40:44	195.0
4733B	11:35:41	223.7
4734B	13:30:38	252.5
4735B	15:25:34	281.2
4736B	17:20:31	310.0
4737B	19:15:28	338.7
4738B	21:10:24	7.4
4739B	23:05:21	36.2

SAT 29 NOV 1975 (333)

ORBIT	ASCENDING TIME	NODE LONG
4740A	01:[illegible]:1[illegible]	64.9
4741A	[illegible]	[illegible]3.4
4742A	[illegible]:[illegible]:11	122.[illegible]
4743A	[illegible]	151.1
4744A	[illegible]	179.[illegible]
4745A	1[illegible]	[illegible]
4746A	1[illegible]	[illegible]
4747A	14:[illegible]	26[illegible].1
4748A	16:1[illegible]	[illegible]
4749A	1[illegible]	[illegible].5
4750A	20:[illegible]	[illegible].3
4751A	[illegible]:41	[illegible]1.0
4752A	23:[illegible]	[illegible]9.7

TRAFFIC

Paul Gagnon, WA6DEI

Is there a need for another "Q" signal?

Armond Brattland, K6EA, is one of the few commercial radio operators who is also active in amateur traffic nets. He travels up and down the West Coast on an oil tanker. He brings up an interesting point with the following letter.

"To be successful a traffic net needs coverage. It is essential that many amateurs check in, even if for only a few minutes, to pick up the traffic for their areas. Telephone coverage is such that, within a matter of only a few city blocks, amateurs within the same city can reach vastly different areas — so, even if you have only a few minutes to spend, be sure to check in! But...

How to tell NCS how much time you have to spend? If you say 'rush' you are likely to be immediately dismissed, and that defeats the purpose of checking in. You dislike taking net time to give a lengthy excuse, but say that you have only ten minutes? If you don't tell NCS something he assumes you have time to await dismissal after the normal flow of traffic, which may hang you up a longer time than you can spare. Perhaps if NCS had known, then you might have been advised where you can pick up your traffic to deliver later. After all, the main reason for having a net is to get the traffic picked up and delivered. So if you lead a busy life, rather than become a net 'drop out' or merely a net 'visitor'...when you have limited time to spend, let NCS know. But how?

Seemingly, although 'QN' signals even cover some of the official "Q" signals, they don't appear to fit your situation. Likely 'QRL ten' would be misunderstood to mean that you are busy for ten minutes. Perhaps you can say 'QRT ten', but it would clearly be improper for QRT means to immediately stop sending.

Since it is common practice to use the first and last letters of a word in abbreviations, such as 'NW', 'BN' and others, the latter being either 'between' or 'been', how about using 'QT' which could mean 'quit' as well as 'quiet'? If it were combined with time and then considerable usage it might soon be recognized as such a signal for checking into a net with limited time. Or would you rather 'ham it up', saying 'KT' for 'kwit'?

Anyone with other suggestions?"

What do you think about his idea? Are there others of you who are hesitant to check into the net because you don't have time to sit and wait while the net goes through its normal routine? Are you letting traffic for your area go undelivered because you don't have time to wait for the NCS to get around to you? Well, this may be the solution. Let's hear from you.

Net control comments

Don Gerue, K6YX, is the Traffic Manager for the busy Mission Trail Net which meets each day on 3928 kHz at 1900 Pacific time. The Net covers most of the West Coast and, due to band conditions, must use a system of relay stations on occasion. His comments in the following article are related to this type of operation.

"When 'the skip is out' the brightest part of an otherwise difficult session is a smooth running, well-disciplined net.

What is necessary for this kind of operation? First and foremost is correct action on the part of each net member aboard. I listened to a talk by a Civil Defense spokesman recently. The theme of his speech was, 'The most important ingredient in good radio communication is SILENCE.'

He could not have been more correct. Since HF radio is a simplex operation, one cannot hear when talking. If and when more than one transmits simultaneously the likely result is bedlam. The Net rules regarding transmissions are promulgated to prevent multiple transmissions and thereby preserve order. These rules are restated every night before Net. Only to the extent they are followed will good operation be achieved. Proper relays exemplify good Net conduct. Guidelines for proper relays follow:

1. The primary relays for each session are the selected Division Net Control assistants. Do not offer to relay unless you feel that the Division assistant will not be able to carry out that function.

2. When the time comes for you to relay, wait for an opportune time, and then give your **call** and the word **relay** only!

3. Offer to relay only when asked or when you are reasonably sure that neither the Net Control nor his assistants are copying the station to be relayed.

4. Let the Net or Division Control make the decision to change relay stations. Do not take over unasked.

5. If you are an Assistant Net Control, relays are your responsibility. If the need for a relay for Net Control or his assistant is apparent to you, give your call and the word relay and wait for recognition.

6. As a Net Control, ask for relays when they are required, but do not hesitate to stop everything and call for order if things get out of hand. If chaos is allowed to prevail you will soon have an infinite number of Net Controls, and no Net! [*From the MTN Blazer*]

HX prosigns:

These prosigns are used by the originator in the preamble as a short convenient means of giving additional handling instructions or requesting certain information from the operators who relay or deliver his message. Sometimes several prosigns are combined so that the originator can get all the extra information he requires, e.g., "HXCE" meaning: report date and time of delivery to originating station, delivering station get reply from addressee and originate message back. All traffic handlers should keep a copy of the prosigns list handy and check it when they have a message with an HX prosign in the preamble to see if any further action is required on their part, other than a simple relay or delivery. Even the "oldest" of "ole-timers" can slip up now and then! In the case of HXE, sometimes, for various reasons, the deliverer is unable to get a reply from the addressee. It is only courteous in such a situation to send a message to the originator explaining why a reply was unobtainable. [*From the Louisiana Amateur Traffic Bulletin* by **Jay Dixon, WA5ZZA**]

Reflections on NTS activity in Virginia

The Virginia section is an excellent example of versatility within the National Traffic System (NTS). Outlets to almost any area of our section are there if one is flexible enough to work SSB, CW and 2-meter FM.

This situation did not just happen; it was the work of a host of dedicated traffic types with leadership from our PAM, RMs, SEC and SCM. Note these examples: Virginia Sideband Net (VSBN) is the great volume net in our section. It has excellent coverage and liaison with other nets. Virginia FM Net (VFN) has outlets other nets don't have and is a mainstay in our network. Virginia Slow Net (VSN) continues to train CW operators. Virginia Net (VN) gives us outlets to 4RN and EAN as well as coverage to major areas within the state. The CVN has been a real blessing with outstanding coverage on 2-meter FM. Our Novice ops get practical experience on the Novice Net. RTTY types enjoy that mode on the Virginia Radioteletype Net (VRN). All of this is backed up by many 2-meter repeaters for local coverage.

What does all this mean? First, our section has seen the growth of a very practical development...the station that operates several modes. SSB stations are checking into the CW nets and the CW ops are getting good experience on SSB. This is excellent training for all operators since procedures do vary a bit. Secondly, our effective coverage is enhanced by the many nets and stations who operate them. Very little of our traffic has to be mailed these days. Years ago we had little or no liaison between various modes. I recall that years ago the VN would have traffic that just could not be delivered and ended up in the US Mail! •

The active NTS member in Virginia will strive to make his station as flexible as possible. With the many transceivers in use, CW and SSB operation is a breeze. Phone men need to get out their keys and CW types should dust off their mikes. Naturally many members cannot do this every evening, but you should try it! The welcome you will receive on our nets will overcome any reluctance on your part to try a net that you have never worked before. Not only will you be of assistance in the public service aspects of Amateur Radio, but you will enjoy your operating much more than if you are glued to just one net. You have the flexibility....now use it! Endeavor to get your station operative on several modes and get ready for some real fun and satisfaction. [*From The Virginia Ham* by **Buddy Smith, W4YZC**]

Who owns the Drake?

Many correct solutions were received to the quiz appearing several months ago. Woody Minar, KH6IAC, came up with the only different solution but he liberalized the statement "the brown house is to the right of the yellow house". The statement should have read, "The brown house is **immediately** to the right of the yellow house." Most of the solutions assumed this. The correct answer is Joe owns the Drake equipment and Jill likes to operate FAX.

	1	2	3	4	5
Mode	CW	SSB	FM	RTTY	FAX
Name	Joe	Jim	Jack	John	Jill
Color	Red	Green	Black	Yellow	Brown
Net	RN5	RN6	EAN	CAN	3RN
Eqpmt.	Drake	Heath	Collins	Swan	Atlas

Easy quiz

Dale Diehl, K5WUF, sent along the following quiz. There are six pieces of equipment on my desk. The transmitter is at the immediate left of the speaker. The keyer is one unit. There is an even number of pieces of equipment to the right of the receiver. The Transmatch is between the amplifier and the speaker. What is the order of the gear from left to right? Send me a message with the correct solution and I will ARL seven.

New ARL texts

The Communications Department of the ARRL has responded to the results of various polls and suggestions and made several additions to the list of ARL texts.

ARL 39 DX QSLs are on hand for you at the _____QSL Bureau. Send _____envelopes.

ARL 49 Greetings and best wishes for _____Day.

ARL 83 Heartiest congratulations on _____.

ARL 84 Wishing you the best of everything on Mothers Day.

ARL 85 Wishing your the best of everything on Fathers Day.

The various publications are being updated but in the meantime get out your CD form 3 list and make the changes.

Net notes

September 5 was the effective date for the Hit and Bounce Slow Net to re-establish the 7:30 a.m. EST sessions on 3714 kHz. Hit and Bounce Net meets at 8:30 a.m. on 7070 but the alternate frequency is 3600 kHz. Eastern stations particularly should QSY to 3600 if nothing is heard on 7070. Sit patiently; every minute or so send "HBN DE....." to see if you have company. Be sure 80-meter activity is reported fully to Ferd Thiede, W2EC.

PSHR

Last year Bill Heitritter, WB6AKR, asked for opinions on how the Public Service Honor Roll could be modified to give recognition to those who can't spend a lot of time as net control and liaison stations but who can check into traffic nets regularly and who are always available when needed to handle traffic. This was aimed at creating a greater interest in traffic by more amateurs. Bill collected a variety of opinions and submitted all of them to the ARRL. Next month we will take another look at the comments Bill received.

Convention time

The Southwestern Division Convention is being held in Ventura, California on 23,24, and 25 October this year. This will be a tremendous convention. Many fine activities are being planned. The plans call for a traffic breakfast to be held on Sunday morning. Plan on attending and meet that fist or voice you have been passing traffic to for years. There is also an Amateur Radio Public Service Corps meeting planned for Sunday morning that you will want to partake of. See you there!

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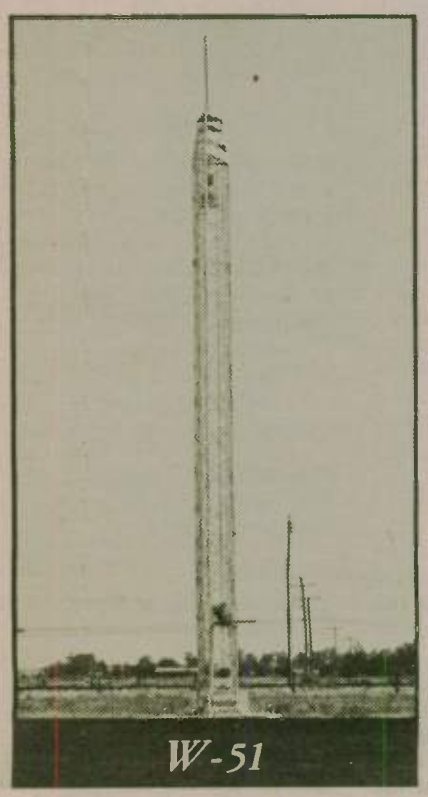
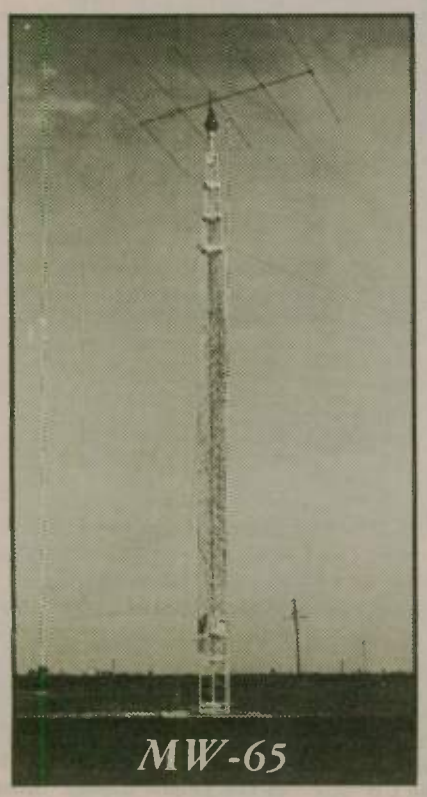
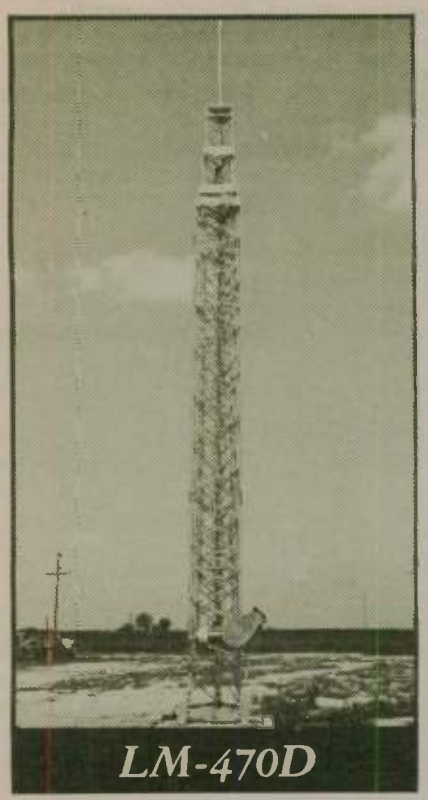


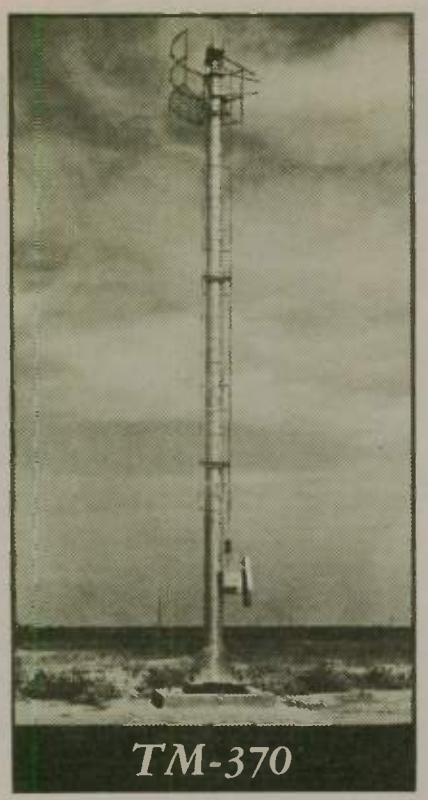
W-51



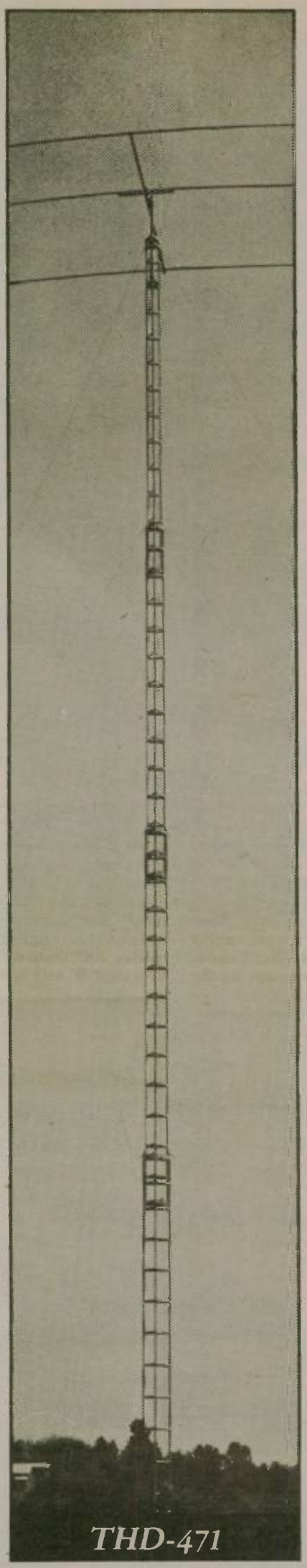
MW-65



LM-470D



TM-370



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CLUBS

Talk about Gung-Ho....

The article below is from the "Carrier" of the Mt. Diablo ARC that meets in Pleasant Hill, CA. Wouldn't it be nice if every club could run such an article?

Hal Mumford, W6CU

What's wrong with us anyway? Isn't it normal for people to sit back and let the "other fellow" do it? But we've got members spontaneously volunteering all over the place.

Without naming names, members have been volunteering in respect to radio classes, Sister Cities, helping the handicapped and novices, honoring silent keys, mailing the CARRIER and writing articles for the CARRIER, running for offices, taking care of door prizes, coffee, sodas, Christmas parties and picnics, taking care of the repeater, managing parades, walk-a-thons, etc., Field Day, trailrides, Walnut Festival etc., etc., etc.

And so, as editor of this paper, I wish to propose a resolution:

WHEREAS, a large number of members of the Club have been volunteering to do things, and

WHEREAS, it is not possible to recognize all such persons with plaques or certificates or even to compile a list of those who deserve recognition, and

WHEREAS, many of said volunteers don't want plaques or certificates anyway,

BE IT HEREBY RESOLVED that such recognition take place here and now,

TO WIT: This paragraph of the CARRIER is dedicated to all members of the Mt. Diablo Amateur Radio Club, Inc. who in the past, present, and future volunteer to do things.

Public service and you

Milt Kohl, W8SLY

There are many of our members who have never or rarely participated in a public service event.

This is certainly a matter for concern since the main purpose of our club is known to be public service, with the ultimate goal being to serve in case of emergency or disaster! It is quite possible that some of our members care less about this aspect and have no intention of participating in such activities. If this is the case, we do not want to exert any pressure or make such members uncomfortable in any way. As a matter of fact, we are very grateful for their financial support and they are very welcome to be as active or inactive as they choose. In the event that such members would **like** to be more active, but **not** on public service events, there are many more areas that need help and I'm sure that if you would make your desires known to the President or to committee chairmen, you could get involved as much as you'd like!

But getting back to public service and emergency preparedness — we feel that many more would participate if they once got into the swing. Like any other new activity, you may have to force yourself because it's human nature to have some fear of new things. The important thing is to break the ice and jump in. After you've been in for a while the water will start to warm up — you'll find you're among friends and you'll start to enjoy it! It's always nice to know people and to be known, but it never comes without effort.

The upcoming boat races and Air Fair will require maximum effort on our part and we need as many operators as possible. Not too many of us can afford to spend four complete weekends on radio communications in July and August, but most of us can spend a few days or a few half days! Our most sincere advice is, "Try it, you'll like it!" You may not be such a sharp operator and you may make a mistake and be embarrassed, but after a while you'll progress to being a sharper operator. You'll still make mistakes but you'll enjoy it so much you won't have time to be embarrassed! Join us and Good Luck!

But the real kicker to participating in public service events is to better prepare yourself for the emergency situation. You will start to see a much closer net control on any type of emergency — whether it's a drowning, lost child hunt, weather alert, tornado or whatever. If you are not adept at emergency type communications you'll find that the net control will not recognize you for participation. Once again, however, even in an emergency, there are always jobs which can best be done by amateurs but do not require rapid two way communication. In the final analysis we will need everyone's help, and hopefully you can help where your particular talents are most needed.

FM Scanner, Dayton, OH

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NOVICE

The past few columns have been tips on studying for and taking the General class exam. This column will concern itself with making sure that you are here to take the test.

Please be aware of the fact that the power in your low-power present transmitter is fully capable of sending you to the Silent Key list in *QST*.

A current of 50 milliamperers is enough to have you go QRT. Also, depending on your state of health, the position of the doors in your heart, amount of fluid in your body, etc., the "fini" level of current can be half of the 50 ma level mentioned.

Now, if your wife (or mother) isn't too crazy about Amateur Radio, just think of what her opinion of it will be if you get zapped.

We're trying to make a little light of a really rather serious subject without being too morbid about it.

Ask yourself, is but a moment of carelessness worth ending it all even before your QSL card from Vermont gets there?

Even leading amateurs, professionally employed in electronics, have gone to the big DXpedition in the sky because of a moment of carelessness. It's not worth it.

One would be hard pressed to come up with a situation where any transmitter (or receiver) work would have to be done with the power on.

Even if the shock itself were not fatal, it could and has happened that the unexpected would result in your head hitting some object. A shock from a low power stage could throw your hand over to a higher power contact.

If the shock were not fatal the movement of your body to the floor could cause serious injury.

Where the fatal dose of electrons does its sad job is when it crosses the heart. This could happen by tightening the plate cap on your 6146 with your right hand and having your left hand on the chassis. Dumb.

You're checking the plate voltage and your hand slips. You are standing on a cement floor. More dumb.

You have turned off all the power but you have not discharged the capacitors in the power supply. Oh, well.

There are some precautions that can be taken. If your workshop is in the garage, get some thick rubber mat to stand on. This keeps you from grounding out. Next, if you must go poking around with a test lead, put your other hand in your back pocket. This keeps you from getting right across the high voltage.

If you are going to work on the circuits where the potential is potentially dangerous, it is a safe practice to have someone else there. Their function is to kill the power to whatever device you are working on if you slip. Then they can call for help.

If you should be working alone and were shocked, and then went into a coma-like state and no one found you for some time, you could suffer irreparable brain damage. When you got out of the hospital you would head straight for 27 MHz and call yourself "River Rat" and that would be a fate worse than .

If you should be near someone who is grabbed by electricity, don't grab them to pull them away or you too will be a part of the act. The power must be turned off first. If that is impossible, push them with a broom or wooden chair.

Up to now we've talked about your rig and its lethal possibilities. Another part of the station that has entered into the actuarial tables of the insurance companies is the antenna mast falling and coming across power lines. This has happened mostly during the erection process and the effort has resulted in as high as three simultaneous deaths.

The key words in all of this are "careful caution."

Now that we have saved your life, the least you can do is send in your subscription to this newspaper. Who knows, maybe next month we'll have info on something really important, like how to work Wyoming.

Don't forget the **Worldradio** new Novice service. If you have any question about anything in Amateur Radio write to us at 2509 Donner Way, Sacramento, CA 95818 and you will receive a personal answer. We may also print your question and the answer here to help out anyone else with the same question.

Also, here's you're chance to be a news reporter. You know what they are. It's a real fun job. You can run through the city room yelling "stop the presses". Here's what we're looking for — if you are going to a class that leads to a General class license, tell us about it. Remember, where, when, and who is the instructor. We want to give a lot of publicity to the classes. We send a copy of this paper to every Novice. Your report can help someone else get their General.

It's funny the way things work. Let's say you get your news in about a class. Someone else reads about it and gets in the class. You might later meet that person and become one of their best friends. You would have never met them if they hadn't gone to the class and got their General. Strange the twists of fate.

— W6AJY

We want to help you enjoy Amateur Radio even more.

TEACHER

About the biggest news in the radio class instructor field lately is the ridiculous amount of time the FCC is taking to get people their licenses.

You may remember in our July issue we told that when you send in the Amateur Radio Service applications to the FCC in Gettysburg, PA to address it to Box 1020. The point of that was the FCC was going to have the Post Office do the first sort. The other radio services had other box numbers. Well, it turns out that the Post Office paid no attention to it and just poured everything into the same bag.

The word is that the situation has finally been taken care of. Hopefully.

You must tactfully and diplomatically prepare your students for a long wait, first to get their theory exams after sending in their applications, and then a lengthy wait to get their licenses.

We find that, unfortunately, this whole debacle is putting a bad taste about Amateur Radio into these new amateurs. They can't understand why it can take more than one-fourth of a year to get a license back.

You can explain to them that the FCC in Gettysburgh, PA gets more mail than the rest of the town put together. You can tell them that they are flooded with 150,000 CB applications a month. They wonder what CB and amateur applications have to do with each other. Good question.

The FCC says they are undermanned (or womaned, or now personned) and don't have the budget to put on more people. That is probably quite true. While there has been an explosion in the number of people working for the federal government, for some strange reason the FCC never gets any of it.

The Department of Agriculture grows at a faster rate than the rate of the decline in the number of farmers. But the FCC is at the same level of many years ago. Some Field Offices actually have less staff than they did ten years ago.

But anyway, there must be a solution to this wait for the new licensees. There is nothing in this world that we know of that takes as long to find out the results as the FCC amateur examination. Why is this on the bottom?

What solution is there? We would like to see the FCC just hand it over to the ARRL. Pay them a set fee and have some standard of performance.

We feel this is very important and ask your support in a letter writing campaign, petitions to the FCC, etc.

The present system does not work. It is a psychological blow to the new licensee to study, take a test and then wait three months to find out if he passed. The enthusiasm, the momentum, the spirit, is lost.

We want to hear the opinions from the instructors on one particular topic. At present the student doesn't know if he passed or failed the test. We can't look at the test. So he (or she) wanders around wondering for weeks, upon weeks, upon weeks. This is ridiculous. We propose that the instructor be allowed to look at the test and then mail a postcard to the student telling him if he passed or failed.

Tell us your thoughts on this. Give us your input as to how it should be done and we'll make a formal petition to the FCC.

And don't forget, the teacher column is open to all ideas to do with teaching licensing classes.

GOVERNMENT SURPLUS

Interpretation of equipment designating systems

article one of a series

Col. Wayne Russell

Several systems have been employed by the different branches of the armed forces for identification and accounting purposes. While only one system is continued, understanding of the various sytems is required as much equipment is offered as surplus which was designated under one of the older systems.

The current system, known as the "Joint Electronics Type Designation System," is easily recognized as the system indicator, the first two letters, is always "AN". This does not mean that all the services use the equipment, but only that the type number was assigned under the AN system. The AN is followed by a slant sign and three identifying letters. The letters to the right of the slant sign are significant because they give a brief description of the equipment. The three equipment indicator letters are followed by the model number. After the model number may appear additional letters to indicate a modifcation of the original equipment.

Consider, as an example, the equipment designation - AN/GRC-3. The AN represents the system indicator. A check of the table gives the meaning of the equipment indicator letters: G-ground (general use), R-radio, C-

[*continued in column 5*]

1st letter (designed installation classes)	2d letter (type of equipment)	3d letter (purpose)
A—Airborne (installed and operated in aircraft).	A—Invisible light, heat radiation.	A—Auxiliary assemblies (not complete operating sets).
B—Underwater mobile, submarine.	B—Pigeon.	B—Bombing.
C—Air transportable (inactivated).	C—Carrier.	C—Communications (receiving and transmitting).
D—Pilotless carrier.	D—Radiac.	D—Direction finder and/or reconnaissance.
F—Fixed.	E— Nupac (nuclear protection and control).	E—Ejection and/or release.
G—Ground, general ground use.	F—Photographic.	G—Fire control or searchlight.
K—Amphibious.	G—Telegraph or teletype.	H—Recording and/or reproducing (graphic, meteorological, and sound).
M—Ground, mobile (installed as operating unit in a vehicle which has no function besides transporting the equipment).	I—Interphone and public address.	L—Searchlight control (inactivated; use G).
P—Pack or portable (animal or man).	J—Electromechanical (not otherwise covered).	M—Maintenance and test assemblies (including tools).
S—Water surface craft.	K—Telemetering.	N—Navigational aids (including altimeters, beacons, compasses, racons, depth sounding, approach and landing).
T—Ground, transportable.	L—Countermeasures.	P—Reproducing (inactivated).
U—General utility (includes two or more general installation classes, airborne, shipboard, and ground).	M—Meteorological.	Q—Special, or combination of purposes.
V—Ground, vehicular (installed in vehicle designed for functions other than carrying electronic equipment, etc., such as tanks).	N—Sound in air.	R—Receiving, passive detecting.
W—Water surface and underwater.	P—Radar.	S—Detecting and/or range and bearing.
	Q—Sonar and underwater sound.	T—Transmitting.
	R—Radio.	W—Control.
	S—Special types, magnetic, etc., or combinations of types.	X—Identification and recognition.
	T—Telephone (wire).	
	V—Visual and visible light.	
	W—Armament (peculiar to armament, not otherwise covered).	
	X—Facsimile or television.	
	Y—Data processing	

[*continued from column 2*]

communications (receiving and transmitting); the figure 3 is the model number.

Until the AN system was adopted the Signal Corps used a serial system, identifying their equipments by SCR (Signal Corps Radio), followed by the model number, for example, Radio Set SCR-508. Individual equipments within this system were also serially numbered such as the BC-603 receiver, BC-604 transmitter, BC-605 amplifier, all of which are components of the SCR-508 radio set.

The Navy used two systems at once, one for identification and one for accounting. First, Navy equipment may be identified by use, by the first letter of a two or three letter identification, such as T-transmitter, R-receiver, S-radar, etc. "A" is used to prefix these letters when the equipment is used by aircraft. The second system used by the Navy is a two, three or four letter arrangement followed by five numbers. The first letter is always C, standing for contractor, the following letters identify a particular contractor. The first two numbers identify a particular equipment class. The remaining three numbers are serial numbers, for example, CRV-46147-D, C(contractor) RV (Radio Corp of America) -46 (radio receiver) 146 (type) -D (model). This sytem causes a lot of confusion as several identification numbers, all different except for the initial C, would all identify the same equipment — different only by having been manufactured by

(*please turn to page 45*)

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INTERFERENCE

Dr. Theodore Cohen, W4UMF

ARRL RFI Technical Symposium a success

Attended by more than 200 persons, including representatives from government and industry,the RFI Technical Symposium held as part of the 1975 American Radio Relay League (ARRL) National Convention provided the most up-to-date overview available on the RFI problem as it affects the amateur. As noted in last month's INTERFERENCE column, talks were presented by individuals representing the ARRL, the ARRL RFI Task Group, the Congress, the IEEE and the EIA, and covered such diverse subjects as Congressional legislation, manufacturers' policies on RFI to home-entertainment devices, and RFI susceptibility tests which can be used in establishing susceptibility standards. In the months to follow we will publish portions of the presentations given so that readers of Worldradio News may better keep abreast of developments in the field of RFI.

One of the presentations given at the convention was read by Frank L. Rose, W3RO/W30WU, Chief, Technical Standards Branch, Office of the Chief Engineer, FCC. Entitled "A Regulatory View of Radio Frequency Interference and Electromagnetic Compatibility", the talk began with Mr. Rose's view of the relationship which should exist between a regulatory agency and the regulated community:

"The...relationship must be founded upon cooperation...cooperation in identifying a problem, cooperation in formulating a reasonable solution and cooperation in establishing a program to implement the solution. In all these phases of regulatory activities the licensees and the equipment manufacturers must work together with the Commission if the goal of obtaining the most efficient utilization of the radio frequency spectrum is to be achieved."

Mr. Rose went on to discuss a variety of subjects including equipment design, technical standards, susceptibility standards and marketing rules and legislation. With specific reference to the latter, we were told that "...the Commission will vigorously seek legislation to obtain such authority as may be required to address the problem of electromagnetic compatibility..." In the meantime, however, Mr. Rose stated that if all parties involved cooperate, it should be possible to establish equitable susceptibility standards which effectively serve the public interest, and which will define for the electronics community those guidelines which, if followed, will alleviate the RFI problems we now experience. Such guidelines could become a part of the Commission's rules once they were evaluated by the electronics community and once the Commission had enabling legislation to control the susceptibility of various devices.

You may be surprised to learn that there are still a large number of groups operating around the country which attempt to resolve radio-interference problems. One of these groups, and one which is also active in performing susceptibility tests on home-entertainment equipment, is the Santa Barbara Interference Assistance Committee. This group was formed by members of the Santa Barbara Amateur Radio Club to help all (!) radio services in solving interference problems and to improve the amateur's image in the process. As

Dr. Theodore Cohen, W4UMF

part of their work the SBIAC, and in particular Dennis C. Rasmussen, W6MCG, and Don R. Gerue, K6YX, recently prepared an article on harmonic television interference ("Harmonic TVI", *QST*, September 1975) which is highly recommended by virtue of its thorough treatment of the problem and its cures.

Another group which has been very active is the Inland Empire Cooperative Interference Committee of Spokane, Washington. This organization, which is FCC sponsored, deals largely with commercial and government-related RFI problems, but is frequently involved with cases related to Amateur and Citizens Radio Service RFI-related problems. The Chairman of the IECIC is Mr. William Wadkins and he can be reached through the Washington State Patrol, Spokane, WA 99206.

RFI complaints to the FCC for fiscal 1975 rose 30% over those reported in fiscal 1974 to a record 55,289 complaints. In discussing the complaints, Mr. Richard Smith, Chief, Investigations Branch, FCC, stated that 45,002 of the complaints involved home-entertainment equipment, and that of these 82% were the result of design deficiencies in this equipment and not in the transmitters. There is no question that increasing numbers of RFI problems, coupled with a greater awareness of RFI problems on the part of the amateur and the consumer, have produced the flood of complaints received. We urge readers to continue to keep the Commission informed on RFI problems experienced so that the Commission can continue to gather the statistics it needs to assess the level of activity required in the RFI field.

A representative of the Electronic Industries Association has gone on record against H.R. 7052, the RFI Bill now awaiting hearings in the 94th Congress. In correspondence to Mr. John Weber, K4JW, the EIA spokesman stated:

"H.R. 7052 is a 'motherhood' bill, poorly written, that by itself won't solve anything. It does not have the support of the FCC, but was prompted by an activist within the ARRL."

The comment in regard to the Commission's position is inconsistent with that stated in a letter dated June 1975 from Richard E. Wiley, Chairman, FCC, to Congressman Charles A. Vanik. Mr. Wiley stated that the Commission was acutely aware of the problem of the susceptibility of home-entertainment electronic equipment and, specifically, the inherent inability of various home-entertainment devices to adequately reject signals from nearby transmitting installations. Mr. Wiley further stated that the Commission's staff is now engaged in a study to determine whether the Commission should seek legislation on this subject as part of its legislative program and that the report on this study should be completed in the near future. Similar comments were made by Mr. C. Phyll Horne, Chief, Field Operations Bureau, FCC, in a letter dated 29 July 1975 to Congressman Robin Beard (Tennessee).

At this time the FCC study has not been made public. Be assured,

(*please turn to page 46*)

ANTENNAS

Excited metal tower becomes vertical antenna

C.J. O'Brien

This story is baed upon a paper delivered by **Ralph O. Robinson, WA3YEE,** *at the 21st National Convention of the American Radio Relay League. The paper was titled, "A novel method for isolating and exciting a metal tower as an elevated vertical antenna for the lower amateur bands."*

No Ground Radials

A Johns Hopkins University Applied Physics Laboratory radio engineer with an avocation as a amateur radio operator has developed a way to convert a conventional metal antenna support tower into an elevated vertical antenna and to isolate and excite it so as to dispense with the ground radials normally associated with vertical antennas.

Developed by Ralph O. Robinson, WA3YEE, of Silver Spring, MD, largely out of a desire for a compact amateur antenna for a suburban Washington neighborhood, the system is particularly adaptable to space-limited urban areas and opens the way to improved and more versatile amateur communications. This technique also eliminates the need for feeding the tower at its base via a gamma match system or its equivalent.

The system, Robinson explains, was designed to accomodate lower frequency amateur bands, 40, 80 and 160, while sparing the radio operator the penalty of guy wires, wave traps, insulators and even auxiliary towers. With this system, a tower of any metal can be made to radiate or receive. . . and along the most desirable section of its length.

Keys to the system are the ground isolation and tower exciting devices, tuned quarter wave sections made from ordinary copper tubing. Tower isolation from the ground is achieved by the quarter wave sections appropriately placed not far from the ground. These reflect most of the RF energy back to the tower. Excitation is achieved by the copper piping quarter wave sections fed by RF transmission lines from the transmitter-receiver. These same quarter wave sections are also used for impedance transformation to match a coaxial transmission line of normal impedance.

Only minimal additions to the tower are needed and the structural integrity of the tower is not affected.

The radiating section of the tower antenna is so designed as to elevate the antenna from the ground, and the isolating unit restricts the flow of current to circuits or ancillary wires where they could shock, burn or interfere with local TV or radio reception or hinder communications.

The vertical antenna method also holds promise as a means of constructing vertical collinear arrays of higher gain and or adjustable vertical radiation angles.

"Actually," said Robinson, "the broad range of physical tower dimensions can be accomodated and it is of little concern if the tower is resonant.

"Specifically, the technique permits an existing tower of a size typical to support a Yagi or Quad antenna (10, 15, or 20 meter bands) to provide the capability of operating on 40, 80 or 160 meter bands by using a combination of the supporting tower and higher band antenna structures and arrangements of electrical hardware. The system can be used on any band or frequency."

Robinson, who began working with amateur radios in 1935, has also a long background in electronics, radar and supporting equipment. He was a member of the early technical team while at the Applied Physics Laboratory during World War II that developed the radio proximity VT fuse. He helped provide an antenna, only a half inch long, for a fuse which carried radar and was shot from a cannon.

He was also the inventor of the notch excited antenna widely used in commercial aircraft and guided missiles. When affixed to a wing of an aircraft or a missile, it makes the surface a receiving or radiating antenna.

He has a number of other inventions to his credit in the radio and electronics field.

—Applied Physics Laboratory, John Hopkins University, Laurel, MD.

•

Surplus

continued from page 42

different contractors.

Now that a basis to interpret the various identification systems has been established, subsequent columns will cover: "Obtaining Government Surplus Equipment," direct from the government, and thru dealers; "Use of Government Surplus Equipment," as originally intended and conversions for amateur use.

Then we will get into specific equipments (selected from your response), going into detailed descriptions and step by step conversions for your personalized use on 2-meter, business band, VHF weather, satellite and other amateur projects.

Inquiry and comment on specific equipment is welcome: 9410 Walhampton, Louisville, KY 40222.

TRAVEL

Do's and Don'ts when traveling in a foreign country

Compiled by **Larry Cotariu, WA9MZS**

Arrange hotel and other accomodations in advance of travel.

Inform family and business associates of your plans and where to reach you if need arises.

Avoid areas where disturbances exist or seem imminent. Your presence might bring you personal injury or detention causing considerable inconvenience and delay.

Communicate promptly with family and associates to allay concern for your safety if the area of your visit experiences a natural disaster (earthquake, flood, fire, etc.) or an outbreak of civil unrest.

Respect the law of the area of your travel. Heavy penalties are imposed by foreign governments for violations of narcotics control laws, which are being strictly enforced. A conviction for possession of, or transporting, a dangerous drug may result in a penalty of from 6 to 10 years in a foreign jail and a heavy fine.

Respect currency and customs regulations overseas and restrictions on travel in or photographing restricted areas. If in doubt on such matters, consult your travel agent or the embassy or consulate in the U.S. of the country to be visited.

Do not carry messages, money or packages of any kind into or out of any country for any other person, unless authorities of that country have confirmed that by so doing you will not be breaking their regulations.

Some countries impose severe penalties for activities directed against the State or its political system, including actions which might be thought insulting to the State or its national flag.

"Post Restante" (General Delivery) services exist at all large post offices in most countries. Mail for travellers should be addressed there. American embassies and consulates do not ordinarily handle private mail.

Before going abroad, contact your insurer to find out what medical services will be covered for you while outside the U.S. If your health insurance policy provides coverage abroad, take your policy identification card with you.

If you are injured or become seriously ill, and have no friends or relatives with you, the consul may be able to assist you in locating appropriate medical services and inform your next of kin or anyone you wish. It is a wise precaution to note in your passport the name and address of anyone you may wish to be informed of such an emergency.

more

G.L. Baker, W5QPX

The following list of Do's and Don'ts is intended as a general guide, representative of the situation one may encounter. It does not represent a complete and specific "code of conduct" that can be used as a substitute for good judgment. Let prudence and conscience be your guide.

DO's . . .

• Avoid all circumstances which can lead to moral indiscretions or vices, including excessive drinking, since these can lead to compromise, blackmail or embarrassment (not to mention the possibility of being jailed).

• Remember that eavesdropping and photographic devices are frequently used in hotel rooms, conference rooms and other places you may frequent.

• Avoid photographs of yourself in candid poses by total strangers — best to be in a family or group picture.

• Report, upon your return from foreign travel, any unusual incidents such as attempt at entrapment or exploitation, arrests or any other information which might be of value to the U.S. Department of State.

DON'TS . . .

• Make conversation about fellow employee's jobs, personalities, weaknesses, including your own, etc. with others who have no official need-to-know.

• Engage in blackmarket activity. Travelers should not barter or sell their personal possessions to foreigners, nor should they exchange money or purchase items from private persons. Violation of the laws pertaining to black market activity can cause considerable embarrassment to the travelers, the U.S. Government and the fraternity of Amateur Radio.

• Accept or mail letters or packages of any type for mailing or delivery to someone in another country or within the country unless you have knowledge of its contents.

• Sign any statement or petition, no matter how harmless it may appear, in which you admit wrongdoing of any kind on the promise that such signature will effect your release from an "offense" or from arrest and detention. Insist politely that you be permitted to phone the U.S. Mission in the country in which the incident occurs.

• Photograph military or defense plants, industrial plants or areas of strategic importance (power stations, railroads/air terminals, dams, etc.), panoramic scenes from airplanes, frontier or border crossings and slum areas. Request permission from the nearest uniformed guide or policeman if in doubt about photographing a particular object.

• Keep diaries of extensive notes on matter other than of general nature information. Under no circumstances should this written record contain opinions of personalities that could possibly be construed as negative towards persons or Governments or be of a sensitive nature.

• Share "secrets" or repeat sensitive information to which you have become privileged through chance-to "acquaintances" or domestic employees providing personal service to you.

Interference

(continued from page 44)

however, that **Worldradio News** is following this matter closely and will report on the Commission's findings at the earliest possible date.

As part of its continued, broad approach to the RFI problem, and to educating people to the situation vis-a-vis home-entertainment problems, the ARRL RFI Task Group will present a paper at the 1975 IEEE International Symposium on Electromagnetic Compatibility. Scheduled to be held in San Antonio, Texas on 7,8, and 9 October, the symposium will feature papers covering almost every aspect of the EMC problem. The ARRL's paper, entitled "The Susceptibility of Home-Entertainment Devices to Strong RF Fields", will review for the professional community a subject which has received relatively little attention in the electronics industry.

Finally, the Amateur Service must show its overwhelming support of H.R. 7052 if we are to convince the Congress to hold hearings on this bill. It is essential that every amateur write Congressman Macdonald and urge the Subcommittee on Communications to schedule early hearings. The RFI problem affects all of us...and we must act now if we ever hope to resolve the problem at the manufacturing level. Write today... lend your support.

Write:

The Honorable Torbert H. Macdonald
Chairman, Subcommittee on Communications
Rayburn Building
House of Representatives
Washington, D.C. 20515

It is also important that you write your own representative in Congress on this matter.

VR6TC

(continued from page 27)

sometimes it's broken down.

A group of amateurs, led by Dr. Charles "Mert" Moser, W6HS, would like to raise $2,500 so Pitcairn can keep on the air when the main generator is off. Looks like a "hands across the sea" help project for the DX clubs around the country.

The Transceiver you'd expect in 1980

is ready-now!

From the company that revolutionized hf ham radio by giving you the first all-solid-state low and medium power equipment, comes the entirely new **TRITON IV**, a transceiver that is truly ahead of its time. The forerunner Triton II gave you such operating and technical features as instant transmitter tune, full break-in, excellent SSB quality, superb receiver performance, pulsed crystal calibrator, built-in SWR indicator, a highly selective CW filter and efficient home, portable and mobile operation fron non-aging 12 VDC transistors.

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Unsurpassed selectivity is yours with the new eight pole i.f. crystal filter, and improved spurious rejection results from the new IC double balanced mixer.

The benefits of ALC now extend to output powers less than full rating with a front panel threshold control. When driving linears that require less than maximum available power from the **TRITON**, or when propagation conditions permit reliable contacts at reduced power levels, ALC will hold your output to the desired level.

Many small circuit improvements throughout, taken collectively, add more performance and quality pluses — such things are as individual temperature compensated integrated circuit voltage regulators for final bias control and VFO supply. And toroid inductances in the ten and fifteen meter low pass filters, LED indicators for offset tuning and ALC threshold, accessory socket for added flexibility, and sequentially keyed mute, AGC and transmitter circuits for even better shaped and clickless CW.

And to top it all off, the highly desirable case geometry has been maintained, but it has a handsome new look. Bold lettering on an etched aluminum front panel and textured black sides and top make the **TRITON IV** look as sharp as it performs.

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

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