World Radio

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Commendation for radio amateurs

On 02 November 1983, Senator Barry Goldwater, K7UGA, addressed the Senate on the subject of Amateur Radio and the role amateurs played in the Grenada crisis. Following are his comments:

Mr. President, I would like to speak briefly about something this nation and its people are built on; namely, traditions.

Over the past week, there have been a lot of activities which our country has lived and suffered through with no small measure of courage and determination. Our Marines are still in Beirut, despite the tragic bombing and the loss of many of their comrades — yet, they go about this task in a tradition filled with courage and resolve. In Grenada, our Rangers, Marines and Seal teams, along with those of the joint Caribbean force helped a tiny nation to rid itself of what most surely would have been a reign of tyranny and communism. The United States came to the aid of those nations to help them in a time of need and to protect our citizens in a foreign nation.

Students who were evacuated from the island of Grenada spoke of our military and our country with patriotic pride — a tradition that in recent years has been missing in the United States. I hope that we can continue to strengthen these same traditions that have made this a great nation.

Mr. President, with all due respect to our fighting forces and what they have been through in the last several weeks, there are other traditions which perhaps have been less noticed — especially in the case of Grenada — that I do not think should go unnoticed.

As you and my other colleagues know, my hobby is Amateur Radio. It is not only a hobby, but to most hams, as they are known, it is also a service. And it is this tradition of service from the Amateur Radio fraternity that I speak of today.

During the first two or three days during which our forces were conducting operations in Grenada, the island was virtually cut off from the outside world communications-wise. Yes, we have spent millions of dollars on communications for our military for use in crisis and wartime situations. However, on this particular occasion, probably the most up-to-date accounts of what was happening, in and around St. George's Medical College area, were given by ham radio operators.

Mark Barettella, KA2ORK/J3, and Don Atkinson, J37AH, maintained communications throughout a very critical situation and were, at times, the only sources of information coming from Grenada. Ham radio operators here in the United States monitored frequencies used by Mark and Don and stayed in contact with them night and day.

Ham radio operators provided a great service, not only to their government, but also to the people of the United States.

(*please turn to page 2*)

A government committee calls on the Amateur Radio operators for emergency assistance and ponders how to best utilize the resource.

Emergency Radio operation

Peter Onnigian, W6QEU
Sacramento, California

The Joint Committee on Fire, Police, Emergency and Disaster Services of the California State Legislature held a one-day hearing in Sacramento, on 17 November 1983, to determine how radio amateurs might help this state's communication needs during times of emergency.

The committee heard 17 witnesses over a four-hour period. They represented ARES, RACES, MARS, ARRL, and the Associated Public Safety Communication Officers, American Red Cross, Salvation Army, California Highway Patrol, California Department of Forestry, the Federal Emergency Management Agency, and several California cities and counties.

The Joint Committee was looking for direction, to recommend laws and regulations which would provide the basis for the effective use of Amateur Radio communication capabilities during periods of civil emergency, as declared by city, county or state governmental agencies.

All the testimony was in favor of using amateurs, although it was stressed that there are a few problems in doing so. Some departments are hesitant because they feel emergency communications is their problem, and they are best equipped to handle it. Others worry about workman disability compensation insurance matters, should an amateur be injured while donating his services to the government.

Stan Brokl, N2YQ, and John Walsh, N6UK — both employees of Cal Tech's JPL — announced that a letter of understanding had recently been signed with the city of Los Angeles.

It provides for: 1) a uniform plan for activation and utilization of Amateur Radio operators by various agencies of the city of Los Angeles; 2) the ability to effectively establish a functional network of Amateur Radio operators, able to support city agencies during a declared emergency; 3) further guidelines for long-term maintenance and support of the program.

(please turn to page 4)

Importance of SETs highlighted

It is doubtful if anyone in Idaho does not remember what they were doing at 8:06 a.m. Friday morning, 28 October 1983. It is doubtful if anyone in Idaho is not aware of the major earthquake that occurred Friday morning at 8:06 a.m.

The most immediate result was considerable comment on the 2-meter repeaters from all parts of the area. Information from the HF bands was also relayed to the 2-meter repeaters, so the hams had the best information available.

When reports from Boise State geologists and other seismographic stations came in, locating the epicenter of the quake between Mackay and Challis and estimating the intensity at 6.9 on the Richter scale, it was apparent that Idaho had experienced a major earthquake.

When the Department of Disaster Services determined that they needed communications into the Custer County area, the emergency disaster plan was put into effect. Within two minutes after they had alerted Dean Bigler, KB7HN, the amateurs were in operation.

Leonard Wilson, WA7ESU, served as net control from his home station on 3.995 MHz and relay station to the Idaho State Department of Disaster Services. As soon as possible, the amateur station in the basement of the Jordan Building was activated. Ken KD7HZ, was the first one on the scene, followed soon afterward by Dave N7EZQ and Dean KB7HN.

Stations in the Custer County disaster area were brought on the air at Clayton by Dick Bowman, WA7WOW, and at Challis by Chris Martin, WA7SIG. The initial communications route was telephone to WA7ESU, 75 meters to Don KD7MU, and thence via the Pocatello repeater to WA7SIG or WA7WOW. Richard Clothier, WA7GFD, served as a link to Dan MacLerran, KA7CKE, at Mackay.

Other stations involved in relays were: Everett Borah, `N7GA; Rex McClain, K7DMZ; Jerry KX7C; Father Francis Peterson, W7RKI; and Kelly Klaas, K7SU. Later, direct contact on 40-meter sideband was established from the Jordan Building Emergency Services location to the Custer County stations. These stations were operating throughout the day Friday, handling both Disaster Services messages and health and welfare messages.

Important traffic handled concerned such information as damage to water, sewer and power services. Knowledge of damage to highways and structural damage to buildings, mines and mining operations was needed in Boise. It was necessary to ascertain any need for medical personnel, supplies and facilities.

In Boise, at the American Red Cross building, Alan Ross, W7IWU, with Walt Walstra, K7CXG: Paul Keller, KA7EWL; and Bob Stanfield, WB7PFQ, activated the Red Cross station on 40 and 2 meters. Alan contacted Randy K7RWZ in Coeur D'Alene, who notified Dennis Hall, KK7X, of the situation. The Red Cross was mobilizing their facilities.

The station was secured at 5:00 p.m. and reactivated on Saturday at 9:00 a.m. Additional stations and persons either manning the station or monitoring were: Gerald Larson, W7ASA; Robert Gregory, W7HPH; Roland Onffroy, W7JE; Bill

(*please turn to page 7*)

Special call signs for '84 Olympics

Richard Ward, of Hollywood, California, recently received good news from the FCC — news that many California amateurs will be interested in hearing. The letter follows:

This is in reply to your letter of 11 August 1983, requesting the use of "23", for the 23rd Olympiad, or "84", for the 1984 Olympics, in amateur call signs in California. The numbers "23" or "84" would be used in lieu of the digit "6", which is the number used in amateur call signs in California. In support of your request, you state that having the option to use a commemorative call sign would be "a chance to spread friendship, good will and excitement from the location of this international event to the world."

We believe that your request has merit and, therefore, waive the provisions of Section 97.51(b), which prohibit granting requests for specific call signs, for the period beginning 01 July 1984 and ending 31 August 1984. This waiver to use either "23" or "84" in lieu of the digit "6" will apply only to Amateur Radio stations located in California whose call signs contain the digit "6".

Sincerely,
Robert S. Foosaner
Chief, Private Radio Bureau □

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Worldradio (USPS 947000) is an international conversation. You are invited to take part. Our newspaper is written by its readers.

Our goal is to be a valuable resource of ideas and experiences beneficial to the Amateur Radio community. We publicize and support the efforts of those who bring the flame of vitality into this avocation.

Our readers are participants — an alliance of active radio amateurs who are concerned with reality, who use radio as a communications tool. We ask your cooperation in helping us develop the skill, quality and full potential of Amateur Radio.

We are positively-oriented. We print all the news of this great activity, and particularly desire an input of stories dealing with the dramatic, the personal and humanitarian uses of Amateur Radio.

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New repeater for Grenada

U.S. amateurs, aided by a major equipment manufacturer and a federal agency, have helped restore communications to isolated parts of the Caribbean island-nation of Grenada in the wake of the invasion there late in October by United States-led forces.

Through the concerted effort that involved many amateur operators, ARRL headquarters and the Agency for International Development (AID), a 2-meter repeater was rushed to the island to link outlying areas cut off from telephone communications with the capital at St. George's and to help in handling health-and-welfare traffic which was slowed dramatically as a result of the fighting.

Joe Hertzberg, N3EA, of Bryn Mawr, Pennsylvania, said first word of the need for a new 2-meter repeater came from Tony Monroe, J39CM, the director of telecommunications for the Grenadian government.

The mountainous island's 146.16/76 machine, which helped link it with remote areas, was destroyed when a grenade hit the building during a sweep of Grenada by U.S. forces following the October 25th invasion, Joe said.

"Practically all communications in and out of Grenada were severely limited," he said. "There were only five or six telephone circuits off the island, and they were in demand by the press and officials. There was no communications with the outlying areas of the island."

Amateur Radio operators in Grenada, equipped with hand-held gear, were able to get to those remote areas but unable to communicate with the capital, Joe said.

The request for a new repeater was relayed from J39CM to Herb Schoenbohm, KV4FZ, in Christiansted, St. Croix, U.S. Virgin Islands, who passed word to Jay Harrison, N5BHU, in Austin, Texas.

"I let Joe (Hertzberg) know about it because he's a retired official of RCA, and I figured he could help," Jay said.

From there, word went to Dave Sumner, K1ZZ, at ARRL headquarters, who turned it over to John Lindholm, W1XX, for action, Jay and Joe said later. ARRL arranged with a distributor in Miami for a repeater to be shipped off the shelf to Grenada, with the bill to be paid by AID, which was playing an active role in the post-invasion recovery of the island.

Unaware of this, Joe called Joe de Sourcelle, president of Spectrum Communications in nearby Norristown, Pennsylvania, and asked for help. Spectrum had a repeater almost finished for another client, Joe Hertzberg recalled, but the company — with the client's permission — agreed to rework it to 146.16/76 and make it available to Grenada promptly and without waiting for purchase orders or other paperwork.

"They were wonderful," Joe said of Spectrum.

But when he learned the Miami firm had shipped a repeater, Joe called off the arrangements with Spectrum.

However, when the repeater reached Grenada, it was discovered that instead of being the 146.34/94 machine that was ordered, it was for a reverse split, rendering it "most difficult" for amateur use because of interference from repeaters on nearby islands, Joe said.

At that point, AID stepped in, took over the reverse-split repeater to provide a link between St. George's and the Pearls Airport on the opposite side of the mountainous island, and offered to buy a second one for amateur communications.

Spectrum responded promptly to the second request from Joe, and the repeater was on its way to Grenada that afternoon. It was on the island and being installed next day. A replacement antenna also was shipped through ARRL help.

The cooperative effort resulted from a daily — but unofficial — net that has met since the Grenada invasion. Its participants have included N3EA; Bill Miller, K4MM, who helped with getting federal agencies' help in the Washington area; John Bickel, KC3KX, of Lancaster, Pennsylvania; N5BHU; and KV4FZ. □

Commendation

(continued from page 1)

Like hams that have gone before them, they have a tradition of service in times of local and national emergencies.

I think it is fitting today that we should honor these amateurs, and the Amateur Radio community in general, for also being a part of the finest traditions of this country. They are a national resource that we should be proud of and should appreciate.

Mr. President, in addition, I would like to enter into the record the call signs of at least a few amateurs that we know of at this point: N2DRA, K3RZR, W3DOS, KA3DTE, KC2PK, WD4CNR, KØIND, VE3AJN, K4MM, WA4ZHC, W4PP, W1ISO, WA4CCK, WD4AHE, WB4CKO, WR4S, WB4FTK, N4GFQ.

I am sure that there are many others who are known to us and who are not included in this list that should receive our thanks.

—Submitted by Dave Siddall, K3ZJ □

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New net time

The AACS Alumni Amateur Radio Net has announced a change in the net's meeting time and frequency. This change is based on radio propagation forecasts for the next six months.

As of 04 November, the new net time is 2200 UTC (5:00 p.m. EST) each Friday. The primary net frequency is 14297 kHz, with an alternate of 14287 kHz. If propagation or band conditions are not favorable for the net, it will be called again at 2230 UTC on 21397 kHz, with an alternate frequency of 21387 kHz.

All AFCC Amateur Radio operators — as well as retired AACS, AFCS and AFCC members — are invited to join the AACS Alumni Net. Net meetings feature informal discussions of past developments and trends in military and Amateur Radio communications.

A number of prominent retired members check into the net on a regular basis, including Brig. Gen. Ivan L. Farman, K6RG; Col. Ronald G. Martin, K6ZF; and MSgt. Julius W. "Jules" Wenglare, W6YO.

— AFCC INTERCOM □

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COLUMNS

New network serves Southeast

John Barrows, W1HCR

There have been queries about the new network, called SOUTHCARS (SCARS), operating in the southeastern section of the nation. SOUTHCARS is the derivative of the South Coast Amateur Radio Service. This new organization is the final link of a nationwide Instant-Service network serving the entire 4th call area and some 5th call states.

The idea of providing a valid Amateur Radio Service was the brainchild of Jim Hartwell, K7UDG — now a resident of Palo Alto, California, who in 1963 founded the West Coast Amateur Radio Service (WESTCARS). It was initially planned for fixed or mobile stations to assist campers and other mobile stations with vital information while traveling throughout the 23 western states. WCARS operates on 7.255 kHz.

In January 1968, the Midwest Amateur Radio Service (MIDCARS) was founded by Marv Cook, W9WWE, and Nick Geer, K9DDT. They meet on 7.258.

This was followed in December 1968 by the East Coast Amateur Radio Service (EASTCARS) by K1LTO; WA1KRN; Jean Strickland, WA3GAL; Bill Fulton, W3RAZ; and W3RSC (now W4MLF). They, too, chose to operate on 7.255.

Two years ago, Dick Eichhorn, KB0AE, and Steve Hendrix, KA0DEK, organized NORTHCARS, who operate on 7.250 and are manned primarily by handicapped amateurs in the area of Minnesota, Wisconsin, the Dakotas and the neighboring states.

The southeastern section of the country was the only area unable to provide this very effective and valid service. The organization and operation of SOUTHCARS was co-founded in January 1983 by Walter Rike, KE8O, and John Barrows, W1HCR, thereby completing the nationwide network. Although all CARS units operate using the same traditional procedures basically established by WESTCARS, all are independent of each other. 7.251 was selected as the SCARS operating frequency. It is now possible to check into a CARS unit in all sections of the United States and parts of Canada and Mexico.

From the beginning of SCARS, consideration was given to suspend its service during the hours of operation of the Florida Mid-day Traffic Net (7.247), by resuming its service at approximately 12:45 to 14:45 (local). Another policy is to suspend its service on Sundays while the Florida QCWA (7.253 conducts its business without interference. Upon the completion of that net, SOUTHCARS continues with its own operation.

Like all networks, there is a great need for net controllers. Increased membership is also required to enable the organization to accomplish its programs and to conduct its business in a non-profit manner. The primary goal of this new Instant-Service organization is to serve the public by assisting in emergencies, handling traffic, furnishing vital information and facilitating contacts. Its operators are dedicated and cordial personnel, located in Florida, Georgia, Tennessee, South Carolina, Pennsylvania and Alabama. The present SCARS operational hours are 08:00-10:00 and approximately 12:45-14:45 (local).

Membership dues are $3 a year (18 March 1983 to 17 March 1984, to coincide with the dates of the Orlando Hamcation). Applications for membership are being accepted by our Secretary-Treasurer Walter Rike, KE8O, 18 Pinewood Drive, Holiday, FL 33590. □

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Total funds received this statement $149.00

Metro Atlanta Net

Carol Hale, WA4WKC, has rejuvenated the Metro Atlanta Emergency Net. All are invited to check in every Tuesday evening at 9:00 p.m. on the 22/82 Atlanta Radio Club Repeater.

Carol says that the net will be more meaningful, with training in emergency communications, traffic handling, and other operating practices. If you are new to Amateur Radio, or are an old-timer in need of a refresher course, remember that we hams operate in the "public interest, convenience and necessity."

Check out the Metro Atlanta Emergency Net — Tuesdays at 9:00. It's open to all, not just club members. □

Antenna fight

'First Amendment rights violated'

Last September — nine months after Steve McKeown, N6GUX, was granted a building permit for a 50 ft. antenna — the Claremont (California) City Council overturned a staff recommendation, changing the height restrictions on N6GUX's antenna.

This change came soon after neighbors began protesting construction of the antenna, on the grounds that the antenna destroyed their view of the mountains and would devalue their property.

The neighbors' protest was heard by the Planning Commission in September. However, only four of the seven commissioners were present, and the vote to lower the antenna was split 2-2. This meant that a staff recommendation to allow the antenna was reaffirmed.

At the council meeting, Roger Ginsburg, chairman of the planning commission, said members of the advisory panel had been concerned over the lack of a process to inform neighbors that the antenna was to be installed.

Unhappy with the commission's actions, Joanne Robinson filed an appeal with the city asking that the matter be returned to the Planning Commission for review by the entire board. Instead, City Attorney Wynne Furth ruled it was the responsibility of the council to decide the future of McKeown's antenna.

Marian Schneberger, an attorney who resides in the area, said neighbors feel that "the former staff members had used poor judgement" in granting a permit for the antenna.

"Those looking north from the tract have their views impacted," she said. "It could impact the value of our property, also."

Curtis, contacted recently by Bill Wojtkowski, community development director, said he understood that McKeown was going to put up an antenna that could be lowered to 26 feet during the day. Curtis, now employed in another city, told Mayor Enid Douglass that he granted the permit with that understanding.

No such agreement is on the permit or on city papers, Wojtkowski said at the council meeting.

Realtor Florence Cohn claimed that values of homes in the area "are diminished by the antenna; by the dreams of one man."

McKeown, a television producer, said he "was not ashamed, but weary" of defending his contention that what he did was right.

"Antennas are not an unusual appearance in the community as a whole. But I'm sorry about this six-to nine-months debate. I want it settled," he told the council.

The new terms state that the antenna may be raised to 50 feet between 8:00 p.m. and 7:00 a.m., but must be lowered to 26 feet during the day.

"If these terms are violated, the permit will be revoked. This means one minute, one time," stated Councilman Gordon Curtis. Neighbors immediately asked who to call if there were a violation. They were told to document the violation and call the city's code enforcement officer.

Outside the chamber, McKeown — visibly upset — said he had followed all the city's regulations and acted in good faith.

"You trust that you are being given a fair shot. Every citizen better think twice about doing anything. I have no problem about when I can use the antenna, but you just don't raise and lower a 700 lb. antenna at night or in a rainstorm. It's not safe.

"The case is not a matter of what I'll do. It's a matter of personal right and the free communication which is guaranteed under the Constitution. I have followed the law.

"Now, we'll go to court to defend my First Amendment rights," McKeown said.

The mayor asked that no more antenna permits be issued until new criteria can be instituted and a better system for the notification of neighbors can be established.

(ED: Clyde Stanfield, WA6HEG, informs us that the Tri-County Amateur Radio Association of Pomona, California is "behind this all the way," and that donations will probably be needed. For more information, write to Clyde Stanfield, 1570 Albright, Upland, CA 91786.)

— Information from The Daily Report (Claremont); submitted by WA6HEG □

●●●

If you are involved in any emergency communications incident, send story and photos to *Worldradio*, 2120-28th St., Sacramento, CA 95818.

South Carolina dam emergency

Chuck Clark, K4ZN

About 9:30 a.m. on Wednesday, 6 July, workers at the Jeffries hydroelectric plant observed water seeping up from the ground beneath the 70-foot high earthen dam and watched it quickly become a 500 gallon-per-second gusher calling for emergency action. In a matter of minutes, the water had gouged out a crater 30 feet in diameter.

The South Carolina Public Service Authority, the State agency which operates the Santee-Cooper System, of which the Jeffries plant is a part, immediately declared a Class C alert, as it appeared that the entire dam could give way, releasing the 225 square miles of water impounded in Lakes Moultrie and Marion. Persons downstream near the dam were warned to evacuate, and those assumed control of the net. Fifty-two stations checked in.

By early afternoon, it had been determined that the water was not leaking further downstream as far as Charleston were warned of possible flooding should the dam break.

About 11:45 a.m. 6 July, Richard Shenot, meteorologist in charge of the Charleston, South Carolina office of the National Weather Service, called Joe Schmitt, NV4I, to ask help in locating Paul Cooper, head of the Civil Defense Agency of Berkeley County. The sheriff's office and the highway patrol had not been successful; could the amateurs help?

Joe put out a call on the Trident ARC's repeater, WB4LET (147.87/.27), and Jim Surrells, WA4NIE, said he was on the way to the emergency operating center and would pass the message. A few minutes later, Jim reported the message under the dam as had been feared, but instead was coming through a 6 ft. pipe which had been set in the dam when it was built in 1942. The pipe was intended to supply water for possible industrial use at a later date. The upper end had been closed with a cap made of creosoted timbers, and the lower end was simply buried in the ground below the dam. The timbers had rotted out, allowing the water to escape through the pipe.

With that known, total failure was seen as no longer imminent, but still possible if the flow of water could not be stopped. KV4I closed the net, but amateurs continued to monitor the frequency, ready to call the net back into session should the need arise.

At 3:30 a.m. on Thursday, 7 July, the 200 workmen succeeded in stopping the flow of water, and, after daybreak, an inspection team determined that no serious had been delivered, and Joe called up and risk of dam failure remained. At 11:30 a.m., the alert was discontinued, and those who had evacuated their homes near the Cooper River were allowed to return.

No real communications emergency actually developed. Telephone lines were overloaded, but the various agencies — Santee-Cooper, Civil Defense, police, National Guard — had their own communications which proved adequate. Had the dam broken, however, it would have been another story.

A worst-case scenario would have 100,000 people forced from their homes and Charleston's military and industrial installations under water for as long as 72 hours. It didn't happen, but the response to this emergency showed that all were ready if the worst had occurred. □

Emergency Radio

(continued from page 1)

The number of organizations within the city of Los Angeles providing emergency communications resources include the ARES, RACES, MARS and the general amateur population, said Brokl. He indicated that there are now more than 100 VHF repeaters in Los Angeles County, with thousands of hand-held transceivers in use.

ARES has been providing communications support for walkathons, bike races, the Tournament of Roses parade and other public service activities. These events, said Brokl, are used as practice activities for the purpose of serving during periods of more serious public need. There are about 1,500 ARES members associated with these activities in Southern California, according to Brokl.

Time and again, witnesses stressed the need for proper and widely accepted identification of authorized amateurs who would be attempting to pass police and fire lines. It was suggested that an identification card would solve this problem, bearing the photo of the amateur and validated by the State Office of Emergency Services.

John Dykes, representing the California State Department of Forestry stated that the forestry people have used a number of hams during periods of brush and forest fires. Citing one Southern California fire, he said the official in charge put a ham with a hand-held into the State jeep and drove into the fire line. Various firefighters made autopatch phone calls to their next of kin to let them know they were safe!

Don Irwin, deputy director of California's Office of Emergency Services said amateurs were excellent communicators. "Putting an office worker in front of a mike accomplishes nothing, as they freeze up, don't know procedure and so forth." Irwin suggested the state require fire and police departments to adopt a uniform code so that a 415 means the same to fire people as it does to the police.

One witness suggested another committee — this time, of amateurs to work out plans and submit them to the Office of Emergency Services. Senator Campbell, head of this committee, thought this was one committee too much.

It is impossible right now for a fire department unit to communicate with a police vehicle, ambulance or a hospital, said Captain John Charcho from the San Jose County Fire Department. He strongly urged a common frequency within a county and even throughout the state for various types of emergency services. Charcho said that he has used RACES units in his vehicles and others in police department cars, just to establish the cross-over communications.

Charcho made big points with the hams present when he urged the state to provide access to state-owned repeater sites. These are protected and have emergency power, which would keep ham repeaters on the air.

A 15-minute videotape was shown, produced by the Coronado Police Department (near San Diego). It showed very clearly how a relatively small police department has trained and worked well with amateurs during communication emergencies. Titled "At Any Moment — Disaster May Strike," it was very well done by professionals and may be borrowed for radio club presentations.

The problem of meshing radio amateurs with the governmental communications users during periods of emergency is not new in California. Last year, this same committee held a hearing in Los Angeles called "California Emergency Services — Communications Crisis." No new law or regulation resulted from that hearing.

As is well known, California is subject to brush and forest fires, landslides, earthquakes and floods. One of the largest known earthquake fault lines runs through the length of California. Many geologists believe a devastating 8-point Richter scale quake is overdue. The state needs all the communications help it can get during emergencies, say those in — and out of — government.

Amateurs represent the largest single source of combined communication equipment owners and operators in the United States. Only recently have some government officials become aware of this resource; they are now doing something to tap it. Many believe that the State of California, through its Office of Emergency Services, will develop and implement a plan to use Amateur Radio operators and their equipment as a backup for government communications during emergencies.

Many of those present felt that the State of California should finally establish a firm policy for the use of Amateur Radio operators and their equipment. This would set a useful pattern for other states to follow. □

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Exclusive memory lockout on the TEN-TEC 2591 allows scanner to temporarily bypass channels for quick lockout of busy frequencies yet retain them in memory for normal operation on demand.

Do theirs store transmit offset?
The 10 memories of the 2591 allow stored offset for easiest operation. And memory channel 0 accepts any non-standard offset.

Do theirs offer selectable SKIP or HOLD?
When scanning with the 2591, choose HOLD to stop and stay on a busy frequency. Choose SKIP to stop for several seconds and continue.

Do theirs offer modifiable Band Scan without complete reprogramming?
With the 2591 you can scan any section of the band with user defined upper and lower limits in steps of 5, 10, 15, 25, or 30 kHz. Change step size, upper and lower limits independently. Manual Scan also, up or down, in 5 kHz steps.

Do theirs have Quick-Release NI-CAD Battery Pack?
The 2591 battery pack slides off easily, yet is secure in use, has a heavy duty 450 mAH rating at 8.4v, and the 2591 has capacitive memory retention to permit pack changing without reprogramming.

THE TEN-TEC 2591 HAS ALL THE RIGHT FEATURES...

• **Memory Scanner scans only programmed channels** and has user selectable HOLD or SKIP • **Selectable 2.5 Watts or 300 Milliwatts power,** top panel switched • **Extended Frequency Coverage—143.5 to 148.995 MHz.** Covers full Amateur Band plus some CAP and MARS frequencies. • **4-Digit LCD Readout with Switchable Back Light** —large, easy-to-read digits, selectable for frequency or memory channel number. • **Key-Pad Frequency and Function Control** —16 key dual tone encoder • **Dual Function LED**—shows battery status and transmit mode. • **Electret Microphone** plus separate speaker for superior audio. • **Compact, Lightweight, Complete**—easy to handle and rugged. Standard equipment includes flexible antenna with BNC connector, AC charger, belt clip, connectors for mike and speaker. Options include: adaptor pack for +12 VDC mobile operation, speaker/mike, 25 watt power amplifier, leather case, desk charger, subaudible tone module, and spare NI-CAD pack.

TEN-TEC

DESIGNED AND MANUFACTURED IN TENNESSEE and it carries the famous TEN-TEC 1 year warranty. See your dealer for the best in 2 meter FM—the TEN-TEC 2591. Or write for information to TEN-TEC, Inc., Sevierville, TN 37862

Special Events...

Hall of Science ARC

The Hall of Science ARC (HOSARC) will issue a commemorative certificate to anyone working a HOSARC station on 15 January, from 1400 to 2300 UTC, in conjunction with HOSARC's 11th anniversary. Stations using the call WB2JSM will operate CW in the first 25 kHz of the Novice bands of 40, 15 and 10 meters. Stations using the call WB2ZZO will operate SSB in the first 25 kHz of the General phone bands of 40, 20, 15 and 10 meters.

QSL with a large SASE (and 40 cents or 1 IRC) to HOSARC, P.O. Box 131, Jamaica, NY 11415, or to Arnold Schiffman, WB2YXB, club QSL manager, 81-22 250th St., Bellerose, NY 11426. □

Radio America Group

The Radio America Group will celebrate its 4th annual picnic at Markham Park in the city of Sunrise, Florida. Certificates will be issued for working the field station.

The event will take place 14-15 January 1984, between the hours of 1200 and 0400 GMT. Frequencies will be: 28.655, 21.375, 14.228, 7.293, 29.28.

A large SASE is requested. QSL via Radio America, P.O. Box 25405, Tamarac, FL 33320. □

Snowflake madness

Michigan Technological University ARC and the Copper Country Radio Amateur Association announces a radio celebration of our Winter Carnival festivities in the northernmost part of Michigan's Upper Peninsula.

Tech's Winter Carnival is probably the most spectacular winter festival in America, with snow sculptures, ice hockey, dogsled racing, skiing and other festive events.

In association with the Copper Country Chamber of Commerce, we are issuing a certificate to all amateurs who make contact with any participating ham in the Copper Country between 0000, 2 February 1984 through 0000, 8 February 1984.

Only one contact is required to get a certificate. Frequencies are: *RTTY* — 3.630, 7.090, 14.095; *CW* — 3.705, 7.085, 14.085, 21.085, 28.185; *phone* — 3.930, 7.285, 14.305, 21.385, 28.685. On CW, listen for CQ Winter Carnival.

Send your QSL along with three 20 cent stamps (postage and handling) to: Howard Junkin, N8FHF, 106 W. South Ave., Houghton, MI 49931. □

Special event on train

On 10-11 September, the St. Paul Radio Club operated a very successful special event station — K0AGF Railroad Mobile. Three stations were set up aboard a moving special excursion train, powered by a restored steam locomotive and operated in conjunction with the "Defeat of Jesse James Days" celebration in Northfield, Minnesota. The train operated out of Northfield, through Dundas, Minnesota and beyond for a round trip of 14 miles. Trips operated every hour on the hour for two days. The train was restored and operated by the Minnesota Transportation Museum.

Antennas, which were all Hustler mobile whips, were bolted to the grab irons of the railroad coach. Three transceivers (Kenwood TS-120S and TS-130S) were operated simultaneously with operation on four bands, both SSB and CW. A total of 473 contacts were made, and special QSL cards and certificates were issued to all those who provided SASEs.

The operators for the special event station were: Orv Eriksen, K0YEF; John Perrone, WB0WIQ; Jim Lorenz, N0ELW; Geb Gebhardt, W0GRW; Ray St. Martin, KC0BY; Duane Jabas, N0BEI; Butch Prust, WA0CMC; Walt Johnson, WA0QQB; and Marv Mahre, W0MGI.

Installing antennas on the railroad coach. On the roof, raising the Hustler 40-meter resonator, is Marv Mahre, W0MGI. Ray St. Martin, KC0BY, is assisting from the ladder. The brakeman with the club is not looking for hobo hams. He just released the hand brakes on the car after it sat on the railroad siding overnight prior to the first trip on Saturday morning.

• Silent Keys •

Apology to W0KVZ

In our Silent Keys section of the November 1983 issue, page 4, Charles N. Mack, W0KVZ, was said to have passed away on 24 August 1983. Soon after the issue was received by our readers, we got a letter from W0KVZ, stating that he had not received his November issue and that he was very much *alive.*

Soon afterward, we received a note from L.F. Ziegler, W0POX, of Omaha, Nebraska — who had originally sent us the Silent Key information on Charles Mack. Printed below is the note.

Recently, C.N. Mack was awarded station of the month. Subsequently by mistake, I reported his death. In the obituary column, there was a C. Mack listed, which was not C.N. Mack, W0KVZ, and this caused the error on my part.

Would you please start sending him his copies of Worldradio (address given).

L.F. Ziegler, W0POX

In order to avoid further errors of this sort, we will no longer accept Silent Key notices for publication, unless sent by a member of the immediate family of the deceased. □

Jack Gillette

Jack C. Gillette, CP6GA/HI8XJG, became a Silent Key on 20 August 1983.

During his many years as an amateur, Jack collected hundreds of QSL cards from his many contacts. He had also used the Consular radio at La Paz, Bolivia for several medical emergencies. In one instance, he stood by a local doctor for 36 hours, in touch with a team of surgeons from Johns Hopkins Medical Center, and relayed — first from the Philippines and then from Florida, as the band changed — step-by-step instructions on how to relieve a depressed brain fracture on a 6-year-old child who had fallen.

His last calls — CP6GA and HI8XJG — were used while he was with the Agency for International Development in Bolivia and the Dominican Republic.

Leila N7BPH, Jack's XYL, writes that they had planned to attend a radio class in Tucson, Arizona, together — he to obtain his stateside license, and she to upgrade. □

Importance of SETs

(continued from page 1)

Russell, W7FOF; Francis Sharrard, W7IRY; and KD7JN.

Looking at the logs of these operations, we find the following calls recorded: KD7MU, KB7ZD, K7SU, KA7CKE, KC7KR, WA7DNK, K6QN, W7FGZ, N7AVY, N7GA, WA7ZPT, W7RIE, KA7LLV, N7DHZ, WA7DNK, WB7WOW, W7JH, K7RT, KC7TN and KX7C. There was traffic handled into the area on 75, 40 and 2 meters. The Pocatello, Snowbank and other repeaters were used as relays in this operation.

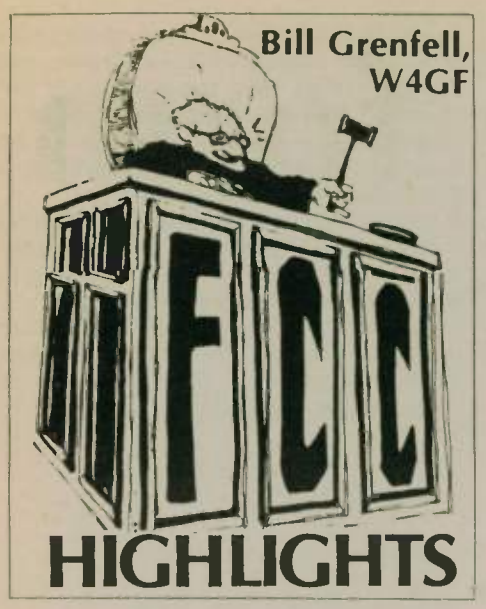
Amateurs from as close as Montana and as far away as Sacramento, California and Denver, Colorado were standing by in case they were needed. Civil defense nets and emergency nets were alerted. The importance of Simulated Emergency Tests was highlighted. Now is the time to critique our operations and seek to improve our capabilities.

There were probably other amateurs who handled traffic into and out of the area who have not been mentioned. The editors of *The Idaho Newsletter* would appreciate any information about these people because we would like to have as complete a record as possible. Let us know. Address is 1920 North Phillippi St., Boise, ID 83706.

— Idaho Society of Radio Amateurs □

•••••

Check your license expiration date.



FCC adopted rules for volunteer administration of examinations of applicants for Technician, General, Advanced and Extra Class amateur operator licenses, effective 01 December 1983 (Report and Order, Docket 83-27, 9/22/83). The document includes 14 pages of reporting and 12 pages of modified and added Rules! The following quotes from the Report probably best summarize the Commission's action:

". . . We expect to phase in the program we are adopting above the Novice Class by first implementing the use of volunteers to prepare and administer telegraphy examinations, and then releasing the pool of questions we will begin to use for Element 3. This will enable volunteers to give the telegraphy examinations for all amateur operator licenses and the written examinations for the Technician Class and General Class Amateur Radio operator licenses, after the FCC has entered into agreement with organizations to be VEC's. We will issue pools of questions for Elements 4(A) and (B) at a later time.

". . . Consistent with the previous discussion, we conclude it serves the public interest, convenience and necessity to accept the voluntary and uncompensated services of individuals and organizations to prepare and administer Amateur Radio operator examinations. We have constructed a program which we believe will insure the integrity of the Amateur Radio Service by providing a substantial number of safeguards which will prevent fraud or abuse. These include the use of three-volunteer examiner teams; accreditation of volunteer examiners; use of Volunteer Examiner-Coordinators (VEC's), requiring VEC's to enter into (and honor) an agreement with the FCC; and FCC retention of authority to give examinations or to retest licensees previously tested by volunteer examiners.

". . . the Commission will, at some future date, issue a Public Notice detailing how and under what circumstances an organization may apply to the FCC to become a Volunteer Examiner-Coordinator (VEC)."

•

Contrary to some reports, the CIA has not advised the FCC that they have taken any position for or against the FCC's "no-code" operator license proposal (Docket 83-28). A decision by the FCC may be announced early in 1984.

•

The new Deputy Chief of FCC's Private Radio Bureau is Michael T. Fitch. A holder of degrees in law and electrical engineering, Fitch is a native of Glenwood Springs, Colorado.

•

Firm adherence to the rules and to the policy expressed in a letter to the ARRL will continue to be the position of the FCC's Private Radio Bureau on the question of what is and is not "business" communication prohibited via Amateur Radio stations. Refer to October 'Highlights' for the pertinent part of the FCC-to-ARRL letter.

•

FCC amateur license statistics as of 01 September 1983 are as follows: Novice Class, 87,066; Technician, 76,052; General, 118,116; Advanced, 95,094; Extra, 33,596; Total operators, 409,924; Club stations, 2,496; Military recreation, 197; Secondary stations, 253; RACES, 535; Total stations, 413,405.

•

When asked when further implementation of the World Administrative Radio Conference, 1979, allocations will be proposed, an FCC official replied, "Fairly soon." Amateur bands which may be affected by the Commission's Notice of Proposed Rule Making (Docket 80-739) are: 1900-2000 kHz, 220-225 MHz, 420-430 MHz, 902-928 MHz, 1215-1240 MHz and 2310-2390 MHz.

•

U.S. amateur stations operating in California with FCC-assigned calls containing the digit 6 will be permitted to use the numbers "23" or "84" instead of "6" in their call signs during the period 01 July 1984 to 31 August 1984 in recognition of the 23rd Olympiad of the 1984 Olympics.

This action was by a 14 July 1983, letter from Robert S. Foosaner, Chief of FCC's Private Radio Bureau in response to a request from Richard J. Ward of Hollywood, California. Ward stated that the option to use a commemorative call sign would be "a chance to spread friendship, good will and excitement from the location of this international event to the world."

•

The FCC has approved extension of the amateur license term to 10 years, effective 06 October 1983. While active amateurs will not have to renew so often, the FCC's file and the Callbooks will contain more "deadwood" of inactives who will not renew. It is estimated that the new term will result in a 25 percent expansion of the data base.

At the time this was written, it was estimated that issuance of the new 10-year term licenses would begin in mid-November. The grace period for renewal after expiration of the present five-year licenses is five years for the operator and two years for the station licenses. For the new 10-year term licenses, it will be a two-year grace period for both the operator and the station license.

Commission licenses in other services are not being extended to 10-year terms because the licensees did not favor it.

•

In an interview given to an ARRL reporter, the FCC's new Private Radio Bureau Chief, Robert Foosaner advised that drastic changes from the previous few years in FCC policy and administration were not in the wings (from the *ARRL Letter*, 29 September 1983).

•

Any Amateur Radio station may now be used to retransmit space shuttle communications. The FCC has granted a blanket waiver of the prohibition against broadcasting in the Amateur Rules (97.113).

The waiver is good for the duration of all upcoming space shuttle flights launched under the auspices of NASA, provided that prior permission is obtained from NASA and that the retransmitted communications are for the exclusive use of licensed Amateur Radio operators only. Both audio and video shuttle communications may be retransmitted. Previously, waivers were granted only to specific clubs and for specific missions.

•

Establishment of a procedure to identify and limit the eligibility for an Amateur Radio license of applicants whose prior operator licenses have been revoked or suspended by FCC for violation(s) of its rules, was the subject of a petition filed with the FCC by Jon J. Gallo, KB6WT.

"This petition is an outgrowth of the jammers and guttermouths who, having had their licenses revoked, are now in the process of retesting for ham licenses. Currently, anyone whose license has been revoked may retest after the expiration of the revoked license." (from the *ARRL Letter*, 29 September 1983)

Note that a suspension applies only to the operator license and a revocation only to the station license. However, the FCC usually revokes and suspends an individual's amateur station and operator licenses concurrently. Unless the Commission can "flag" its processing computer to hold a "new" application for

consideration of designating it for a hearing, the violator gets back a license after being licenseless only for the remainder of the term of the licenses revoked and suspended. This often makes the length of the punishment unrelated to the nature or gravity of the offense.

•

Contrary to a recent amateur publication report, the FCC staff advises that the Hildebrand (N6BHU) suspension and revocation for indecent and profane language remains actively before the Commission for review. The Private Radio Bureau's request for the Commissioners to review the Review Board's action "reinstating" Hildebrand's license was made on 25 February 1983. It is not unusual for a complicated case to drag out a year or more before it is finally settled. The Claypoole case reported in the next paragraph is another example.

•

The FCC has "affirmed" the revocation of Harold R. Claypoole's license for Amateur Radio station N6BII and the suspension of his General Class Amateur Radio operator license. Claypoole's operating privileges were terminated by the Commission's Private Radio Bureau's 25 March 1983 Order, which was — by its terms — effective immediately.

He was warned by telephone that he had no authority to operate. On 10 May 1983, Commission personnel monitored transmissions made by him. FCC's 26 September 1983 Order states, "If there is evidence of further operation by Claypoole after the date of this Memorandum Opinion and Order, the Commisssion will seek criminal prosecution for violation of Section 301 of the Communications Act of 1934, as amended."

The current proceeding was based upon his willful and repeated violations of Section 97.125 (willful and malicious interference), 97.121 (use of false call sign), Section 97.113 (broadcasting) and 97.115 (transmitting music) on several days in March 1982.

After Claypoole's first license issued in 1952 expired without timely application for renewal, he applied for a new license in 1960, and his application was set for hearing on the basis of unlicensed operation and "transmissions of an indecent and obscene nature." His application was denied by an initial decision of a hearing examiner, released on 25 October 1961. Claypoole was subsequently relicensed, on 18 December 1962, after he made promises of compliance.

His most recent licenses were granted 06 March 1979, for a five-year term. Then on 01 March 1982, the Commission began to receive complaints about his operation, whereupon he was cited for the several types of violations which are the basis for the present proceeding. The Commission's present Order contains more than four pages describing Claypoole's history of misbehavior and the Commission's dealing with the problem.

•

Garry Kerr, ex-WA6JIY, was fined $2,000 for operating an unlicensed radio station on 13 April 1983 (willful violation of Section 301 of the Communications Act).

"Kerr previously held a General Class license, but was denied a renewal after an FCC hearing and subsequent appeal on charges of causing intentional interference to California Bay Area 2-meter repeater systems. Complaints that Kerr was still using amateur frequencies caused a field investigation to be started. The results were that he was, in fact, using an unlicensed transmitter on a frequency used by a San Francisco repeater.

"Since Kerr has not as yet paid the fine, the Commission is now considering referring the matter to the U.S. Attorney for collection in Federal Court proceedings. He has also been warned that continued violations may result in more fines and/or criminal prosecution." (from the 23 September 1983 issue of *Westlink Report*)

•

A six-month suspension of the license of Philip J. Beaudet, WD6FGE, has been ordered by the FCC. "On 01 April, an FCC Field Bureau team located the source of an unidentified signal in a semi-wilderness area of the Santa Cruz Mountains. Evidence was obtained that Beaudet, an Advanced Class amateur, was intentionally transmitting an unmodulated carrier and causing interference to repeater operations. He voluntarily surrendered his license rather than face severe administrative penalties and has since moved away from the area.

"A formal Suspension Order was issued 01 July that suspends his operator license until 08 December 1983." (from *Westlink Report*, 09 September 1983) □

OFF THE AIR

Lost anything?

I am interested in locating others who lost something when Dentron Radio of Ohio folded.

GARY MITCHELL, KH8AC
Box 320
Sunol, CA 94586 □

Counties needed

I am a county hunter with a total of 3,057 U.S. counties. I need 19 more to finish all 50 states. I would appreciate it very much if any **Worldradio** subscribers would inform me if they have QSO'ed with a ham in any of the following counties, CW only:

Arizona — La Paz; **Hawaii** — Kalawao, Kauai; **Kentucky** — Clinton; **Mississippi** — Noxubee, Stone; **Montana** — Blaine; **Nevada** — Eureka; **North Dakota** — Benson, Burke, Dickey, Emmons, Nelson, Towner; **Oklahoma** — Harmon; **Oregon** — Crook, Tillamook; **New Mexico** — Cibola; **Wyoming** — Uinta.

ED SZUDY, W9VEN
Berwyn, Illinois □

Call sign confusion

When a ham moves from one call area to another and gets his license changed by the FCC to the new area, he sure runs into trouble!

I moved to Florida about a year ago from Texas, and chose to retain my call, W5MUA. Here are some of the comments I have encountered: "Sorry OM. Guess you forgot to sign W5MUA portable 4." "If you are a W5, your zone report is *4*, not *5*, QSL?"

Maybe time will take care of this problem, but it sure slows you down in a contest, explaining the details.

LEX SHACKELFORD, W5MUA
Summerfield, Florida □

Contact Worldradio for hamfest prizes.

Transmitter saga

A transmitter I once used on the ham bands over 60 years ago is now owned by a radio station in Hollywood. The station is KNX. The transmitter is the first that KNX used in Los Angeles, California, purchased by me in the early part of 1922.

It was to be used on the ham bands. At that time, I had two call signs assigned — 6BRF fixed and 6ABC portable.

The station was owned and operated by Electric Lighting Supply in Los Angeles, California, from whom the unit was purchased.

Not long after this, I went to work for the above company. I was employed by them for over 10½ years. Just before going to work for them, they had again started operation of a new KNX. At the same location, California Theater. I was a radio salesman as well as the operator at KNX. We were on the air for a couple of hours a day, a few days a week. All the stations in the Los Angeles area used the same wavelength — 360 meters. This called for sharing time with the other stations.

We broadcast orchestra music from the theater pit, and on some occasions, recorded music. Any direct revenue from this operation was not permitted. So after a short time, we again ceased operation. The transmitter was sold to someone in Northern California.

The station license was returned to San Francisco for cancellation. Enclosed with the license, too was a request made by Forbes VanWhy to have the call KNX assigned to the Paul G. Hoffman Studebaker Distributors in Hollywood. He was to be the operator. The request was granted.

I used the original KNX unit until May 1925, when I sold it to 6CZ. The proceeds bought a diamond ring for my wife-to-be.

I celebrated my 83rd birthday in September. Being alone now and doing some writing keeps my mind out of the fog and alert.

A very good friend of mine — Harlan Neal, WB7EEI — has now got me chasing DX. Harlan also helps me with any problems such as climbing the tower.

Some years later, I was told that the transmitter was sold to the then KNX. This fact was never verified by me.

In May of 1982, I decided to contact KNX-KNXT station in Hollywood. A return letter verified the fact that they did indeed have my old transmitter. A short time later, I visited the station in Hollywood, and — lo and behold — there was my old transmitter. Pictures taken in 1923 removed all doubt as to the authenticity of the transmitter being my old rig.

Eric Disen, the station manager (also a ham), and I had quite a chat. He showed me what KNX is today and asked a few questions. One question really got to me: How did we keep the station on a stabilized frequency? And how much tolerance was permitted? Very good questions and quite vague answers I had to give him. I might add that an absorption-type wave meter was an integral part of our test equipment, along with a hydrometer, pliers, screw driver and such. Also, of course, extra 203's and 50 watt tubes.

The transmitter used four 50 watt, 203 RCA tubes; one WE speech amplifier tube; single-button carbon mikes for announcing as well as in the orchestra pit. We had a few problems with them, as they invariably got kicked around some by the musicians. Sometimes we also did a little kicking to get the carbon granules stirred up!

Heising modulation used two tubes. Two tubes were used as oscillators. A couple of the local Los Angeles stations put in some buffers ahead of the oscillator, which kept things a little more stable.

The store sold many items related to transmitter equipment. We were also representative of DeForest transmitting equipment. We installed the first radio transmitter for the Los Angeles Police Department — DeForest transmitters and Motorola receivers for the cars.

My portable call sign and some of my equipment were used to locate the most suitable spot to erect the tower. KGPL was the call sign of the LAPD. This was in 1930. At that time, the cars had no transmitters.

My radio (wireless) goes back a few decades — to 1911, at Medford, Oregon. My present rig is a TR-7 with necessary component Drake accessories. A TET three-band 4-element Yagi, up 52 feet, and a long wire completes my station. Also, a 2-meter rig I've had for a few days.

NEWTON WIMER, W6ABC
Albany, Oregon □

Newton R. Wimer, W6ABC (left), looks over his old transmitter, now owned by Hollywood station KNX-KNXT. Station manager Eric Disen is on the right.

Food for thought.

Our new Universal Tone Encoder lends its versatility to all tastes. The menu includes all CTCSS, as well as Burst Tones, Touch Tones, and Test Tones. No counter or test equipment required to set frequency-just dial it in. While traveling, use it on your Amateur transceiver to access tone operated systems, or in your service van to check out your customers repeaters; also, as a piece of test equipment to modulate your Service Monitor or signal generator. It can even operate off an internal nine volt battery, and is available for one day delivery, backed by our one year warranty.

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Plea for cooperation

Unfortunately, there seems to be a war developing between the slow scan TV group on 14230 and the W7PHO Family Hour on 14227 every morning. Both of these groups were on frequency before the new frequency allocations went into effect, and both groups are a little bit touchy about the General Class group moving in on top of them. Therefore, whenever someone in the SSB or the SSTV group runs their gain a little bit high and they start to splatter a little into the other group, it starts a small war of the old "get off my frequency." Of course, we all know there is no such thing as any single frequency belonging to any one person or group, but it has been well known that certain groups do meet on the same frequency each day and have done this for many years.

Lately, we have seen a couple of SSTV stations move down on top of the W7PHO Family Group and purposely turn on their SSTV signal to block the frequency. We have also seen a couple of the SSB group move up on the SSTV frequency and use 14230 as a dummy-load. One incident leads to another, and before long, we have a small war going on.

Neither one of these retaliations is worth trying because they will just snowball into more problems. The best solution would be to put more distance between the two groups. The SSB group can't very well move down any further because of the General and Advanced wall at 14225. I wonder if the SSTV group would be nice enough to move up to 14235 or thereabouts? It's the only thing I can think of, unless the FCC would like to allocate a separate frequency for SSTV only.

If anyone has other ideas, it would be nice to see them in **Worldradio**. Keep the suggestions in the good spirit of Amateur Radio and not like some of those you hear on the air — just after you have told someone his signal is so broad you could land a plane on it.

JIM LOWE, N7AWM
Fallon, Nevada □

Hawaiian Field Day

Rufus McCracken, KH6QL

Amateur Radio Week (19-25 June) was declared by Hawaii's governor to honor Amateur Radio operators for their dedicated public service. Air Force State MARS amateurs held a Field Day at Bellows AFS to celebrate the occasion and to test their emergency communication capabilities. Call sign used was KH6IJ, belonging to Katashi Nose.

For this year's event, Peter Demmer, KH6CTQ, AF Field Day manager, built a new portable wind-driven generator of innovative design. Each year, Pete adds a new project — something unique to improve the state of the art and the Field Day experience. Over the past 14 years, these projects have included a 464 ft. bi-wire portable rhombic antenna, (that swings from 40 ft. portable masts), an efficient antenna tuner (a classic work of art), and related equipment that puts out a very competitive signal across the United States using very low power 20 watts QRP Ten-Tec equipment.

Local and visiting hams were invited to help set up, operate and tear down the emergency Field Day station. Most important was the timely equipment set up, properly planned and executed by Manager Demmer and the MARS gang. This formidable feat was accomplished in record time by this year's crew. The setup team included AF State MARS Director Bruce Mertz, WA8KLH; Edward Dryer, KH6OF; Rufus McCracken, KH6QL; Jeffery Komori, KH6JUZ; Carl Fischer, KH6LT; Ken Miller, WA4BJE; and Bill Crielly, K3KZG.

Most important to the Air Force group was having world-famous Katashi Nose, KH6IJ, and his charming wife, Matsuyo, spend the day on site. Other ham visitors were happy to see Nose up and around again, recovering from a stroke suffered in 1979. Nose was awarded the ARRL plaque "The Court of Honor" at Hickam AFB a feww months ago, and the "Amateur of the Year" award for 1983 at the Dayton (Ohio) Hamvention, 29 April-01 May — both firsts for an Amateur Radio operator from Hawaii. □

Reagan's envoy is I0WW

President Reagan's special envoy to the Holy See in Rome — Bill Wilson, K6ARO — has been given the enviable call of I0WW as well. Friends report that two-letter calls are very rarely issued at this time. □

Fun on the bands

NEEDED: U.S. Callbooks, supplements and a sense of humor.

It is a sultry Sunday afternoon here in the Tampa (Florida) Bay Area. The humidity is combining with a mercury reading of 96F — bad enough to drive even a nature-loving, retired high school biology teacher into the air-conditioned sanctuary of his ham shack to have some fun on the Novice subbands.

15 meters is intermittent with too much QSB, but now and then a CQ comes through with an S-meter reading of anything from 2 to 7. While my Novice or Technician potential QSO is tapping out his 10-15 CQ's with his call attached, I am busy hunting his call in the U.S. Callbooks or spring and summer supplements, and then it goes like this — all in Morse code, of course.

"Hello KA8OSV. How is the rest of the Atkins family and how is the WX up there on Donnegal Ave.? By the way Mike, congrats on the upgrade to Technician."

If the copy is good, back comes the inevitable, "Have we met before — I don't remember your call or handle or QTH?

After the initial surprise, confusion, or sometimes consternation is over I come back with, "You are on page 56 of the Callbook Spring Supplement, third column top — " and then a more than interesting QSO develops — band conditions permitting, of course. I always follow this with one of my pretty Florida map QSL cards, with an arrow to my QTH on Tampa Bay.

I am consistently amazed how few hams know of the existence of these Callbook supplements.

Rarely, I run into a sharpie on the other end who says, when I pull my "old friend" routine on him, "You are pretty fast with those Callbooks, OM," and that deflates my ego pretty fast, but never fails to generate a darn good QSO and many times a follow-up QSL card. By the way, I have no stocks in the Callbook Company, nor am I receiving any remuneration from them.

All this is an effort to enjoy the hobby, have fun and to enlighten those less informed about the existence of these valuable directories; I refer to the supplements, of course. Most are real happy to know they are in print and are thankful to me for letting them know about it. The whole process sure beats the monotony of the old routine of R__S__T, QTH and name. These three important elements always end up getting passed along anyway. I might add that more interesting to me than rig, Ant, PWR and RST is age, job and family information. Maybe it's because I am a naturally nosy ham, but many times I find out that which few others do — the ham on the other end is sightless, as the last blind ham I talked to referred to his condition. I met one of my best ham friends — a quadraplegic who I now eyeball QSO regularly — by being nosy on 2 meters one night.

I have one more vice. I like to give a vivid description of, "The palms outside my shack are waving in the 76 degree breeze off Tampa Bay." You can imagine how that goes across in the cold north stations in January and February for my WX report, when their hands are so cold and stiff they can barely operate their brass keys.

In closing, if you get this far, mail me an SASE and I shall be glad to send you your page number in the Callbook supplement. Or better yet, I'll set up a CW schedule with you on any General Class frequency of your choice.

LUTHER VOGEL, KA4MRQ
Secretary-Treasurer, Manatee ARC
2717-23rd Avenue W.
Bradenton, FL 33505 □

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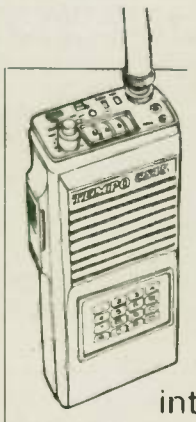

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PUBLIC SERVICE

Handi-help for WAARS

Kelly Bruce, WD4DAT
Tuscaloosa County DEC

In the six years I have been a ham, I have read many articles on Amateur Radio organizations helping out local agencies, such as the Red Cross and March of Dimes, but our club — the West Alabama Amateur Radio Society (WAARS) — had the opportunity to help out a handicapped organization and at the same time start a project that was long overdue.

It all began several months ago, while I was preparing for our monthly club meeting at our county's public library. I am this year's secretary/treasurer of the club, and with a membership of over 40, I am always kept busy with paperwork.

While doing my duty, I was introduced to a young man named Buddy Gray. Buddy is blind, and is presently studying law at the university of Alabama. He is also involved in several organizations around our city. Buddy and I talked, and I invited him to our meeting that night. Afterward, he expressed an interest in Amateur Radio — especially our club's involvement in public service activities. I told Buddy that if he felt our club could be of service to him in the future, not to hesitate to contact us.

Several months went by and I received a phone call from Buddy, asking for our club's help in a project that his handicapped organization was doing for the city of Tuscaloosa.

The city of Tuscaloosa, Alabama has always been involved in helping the handicapped. The mayor has a special committee addressing the needs of the handicapped. Buddy was told by the public officials that they (the city) were in need of an accurate list of handicapped barriers and their locations in order to redesign these architectural obstacles. This information would then be handed over to the Planning and Development Department of the city, and priority areas would then be defined for immediate action.

I invited Buddy to our next club meeting to explain to everyone what our club's involvement would be, and to give details of the project. After hearing Buddy explain the proposal and seeing the benefit this project would be for the handicapped citizens of our city, the club voted unanimously to accept. The enthusiasm of the club members about this project was very evident, as this was the main topic of discussion after the meeting. Members were already making plans on how to cover the area, to possibly divide up the city into sections, and even what frequency to use.

Bill Barker, KB4AZS, suggested it would be nice if we could computerize our information to be presented to the city. As a member of the Tuscaloosa Area Computer Club (TACC), Bill asked for their help, which they gladly gave. Other agencies were contacted. The Tuscaloosa Chamber of Commerce provided pocket street maps for all, and the city provided large detailed street maps for us to plot coverage and problem areas. The local newspaper and television stations were contacted to cover the event, and the project was in full swing.

The area we were concerned with at the time was the downtown area, which is contained in a 15-square block section. Plans were made to divide up in teams, with each team assigned to cover a certain number of streets. Each team would have at least one amateur, accompanied by one or more handicapped members of the West Alabama Rehabilitation Center (WARC). What better way to determine a possible problem area than to have an actual handicapped citizen there to see firsthand? We found out later that this worked extremely well. Even small barriers, which could easily be overlooked by you and me, were quickly identified.

Herky McDaniel, W4WYP, our club president, provided the location for our HQ at his home. There, the members of the computer club would set up their computers, and with his radio gear already in place, this would provide the optimum setting through which to funnel the information. We decided to use our club repeater W4WYP/R, 147.90/30, and activate our local 2-meter net — the Alabama Emergency Net — in a special session.

Saturday morning, 23 July, turned out to be a real barn-burner, with the temperature already over 80 degrees. The group met at the courthouse, and the event was on.

Within minutes, the information started to flow in. The event was scheduled to last three hours, from 9:00 a.m. to noon. The traffic on the repeater was fast and furious, with one report after another coming in over the speaker. There was even a waiting list for traffic, as stations found more and more problems.

Kelly Bruce, WD4DAT (center, with white shirt), explaining street assignments to members of West Alabama ARS.

By 11:30 a.m., all teams reported back safe, sound and very hot, as the temperature was now over 90 degrees. The group left and met back at the pizza restaurant for a complimentary lunch and discussion of the events.

Over 125 barriers had been identified. They ranged from low-hanging trees to a large dumpster blocking the road. A report will be made to the mayor in January, after we cover other areas around the city. We realize that the city can in no way readily correct all the problems we found, but we now have a complete list of the handicapped barriers and where they are located.

The spirit and cooperation shown in this project are a good indication that people do care and are willing to help our handicapped citizens. Those who haven't suffered a handicap often forget how difficult just going to town to shop can be, and we all need to do everything we can to make our streets safe.

The local media provided us with excellent coverage, as both newspaper and TV crews reported on our event for several days afterward. After seeing the report, Tuscaloosa citizens contacted us to report barriers in their areas as well.

I encourage Amateur Radio clubs in other cities to contact their local handicapped organizations, and to set up similar events. If information about handicapped barriers is reported to your local city officials, we may eventually — hopefully in the near future — be able to make our streets safe and comfortable for all citizens. □

CAUTION

It's hurricane season, and owners of portable generators — including generator-equipped recreational vehicles (R/V) — may be tempted to supply power to their homes if an electric service interruption occurs.

But R/V owners and users of other types of generating equipment should know that plugging in an alternate power source to house wiring without disconnecting the home's main electric switch could result in serious injury or property damage.

Here's why: Unless power is cut off at a home's main switch, electricity from an R/V or portable generator can flow into outside power lines and be transformed into very high voltages. This could cause serious injury or damage.

— Tamiami ARC, Venice, FL □

Children enjoy Shriner stations

Alfred Bein, K2BWQ

Radio amateurs form one of the greatest fraternities in the world. Few ever see each other, yet lifelong friendships are developed regardless of race, color, creed, wealth or social position; or whether one is a monarch, a janitor or a pauper.

Amateurs devote hundreds of hours handling messages or placing phone patches for G.I.'s stationed overseas or at military camps throughout the world, and for seamen hundreds of miles out at sea. All these services are offered free of charge. It's strictly an act of love from one human being to another. I'm certain of one thing — regardless of one's political belief, no one hates another.

Now, to get to the gist of my thought. We do not know how many amateurs are Shriners. There must be thousands of them and many of these perform a great service. Following are some facts regarding Shriners hospitals (as reported in the *Salaam Shrine News*):

The first orthopedic hospital was opened in Shreveport, Louisiana, on 16 September 1922. Today there are 18 orthopedic hospitals. A 19th hospital will open in Tampa, Florida in 1984.

The first burn institute was opened in Galveston, Texas, on 20 March 1966. Today there are three burn hospitals.

Since 1922, the Shriners hospitals have done the following: 264,203 children have been cured or substantially helped; 349,492 operations have been performed; 304,245 braces and prosthetic appliances have been made; 3,642,364 x-rays have been taken; 6,351,624 physical therapy treatments given; 2,624,217 clinic visits; 17,146,158 patient days in orthopedic hospitals; 427,628 patient days in burn institutes.

In 1982, 14,517 new cases in the 21 hospitals; 206,363 patient days in orthopedic hospitals; 25,440 patient days in burn institutes.

Since Shriners hospitals were established, a total of approximately $660,141,335 has been spent by the Shriners for operating all 21 Shriners hospitals. The Shriners have spent $116,416,148 in construction costs. The annual operating budget for Shriners hospitals runs in excess of $96,000,000 in 1983.

Through research and improved methods of treatment, the patient's hospital stay has been decreased from 121 days in 1966 to 31 days in 1982 for orthopedic patients at the Philadelphia Unit. The average length of stay for patients admitted to the Spinal Cord Unit was 75 days in 1981 and 52 days in 1982.

The Philadelphia Hospital opened the first Shriners Unit for the treatment of children with spinal cord injuries on 18 October 1980. This is an eight-bed unit with modern facilities and equipment, including a video monitoring system.

Some years ago, a few amateurs formed Shrine Clubs or units in their respective Temples. For example, the LuLu Temple Amateur Radio Unit in Philadelphia obtained permission to build an Amateur Radio station at the Philadelphia hospital for crippled children. They operate mainly on 20 meters, primarily because so many of the kids are from Central and South America and the Caribbean Islands, and speak Spanish only. The station operates every Thursday at 2300Z on 14328 kHz. The net, which was established for the purpose of offering communications for the kids, does not restrict participation to Shriners. Anyone may join.

Since the inception of this movement, the Shriners have built Amateur Radio stations in the Houston Hospital for burned children; the hospital for crippled children in Spokane and Portland, Washington; St. Louis, Missouri; Minneapolis, Minnesota; and Shreveport, Louisiana. The hospitals operate on the lower frequencies for local children to speak to family and friends.

What's wonderful about all this? The hams build these stations with donations from the distributors, manufacturers and money out of their own pockets. That's dedication and empathy! The Shrine motto is "We dance tonight so they can walk tomorrow." The LuLu Temple's motto is "No man ever stood so tall as when he stooped to help a crippled child." □

Helpful hams in Nebraska

Reynolds Davis, K0GND

A 70-mile bicycle race was an occasion for nine amateurs to use their handi-talkies on 08 October, in Lincoln, Nebraska.

Members of the Lincoln ARC provided course communications for the Capitol City Classic race, which included world class bikers from across the United States. The race covered a 3.5 mile course 20 times.

Amateur Radio operators were stationed so that all portions of the course were under constant observation.

Two days later, 12 amateurs gave communications assistance when an unseasonal, yet rapidly developing, frontal system west of Lincoln caused a severe thunderstorm watch to be posted for the area.

This was followed at 6:30 p.m. by a severe thunderstorm warning. In response to the warning, City/Council Civil Defense called Assistant Emergency Coordinator Steve May, WA0ASM, and asked for spotters to be deployed at several pre-planned locations. The spotters were asked to not only observe the passing front for unusual activity, but to also monitor precipitation in case of lowland flooding. Neither occurred, and the net was secured at 8:50 p.m. □

●●●

The arm of Amateur Radio reaches around the world; **World-radio** is out to reach you.

Several members of the Zephyrhills ARC of Zephyrhills, Florida gathered to see Felix "Ski" Karpinski, WB4AOG (left foreground) receive the fire station key from former Fire Chief Charlton Galster (right foreground). Next to the chief is the city's mayor, and behind him are several city councilmen. Behind "Ski" are club members: Claude Coon, KA8IJY; Andy Shumway, engineer for Florida Satellite; Norb Gratin, WD4IEP; Earl Jones, KA4VMU (head in back); "Ski" Karpinski, WB4AOG; Marion McCullough, KA4PRJ; and Arlene Lippincott, WD4PNZ.

Amateur Radio at fire station

The 63-member Zephyrhills (Florida) ARC, working in conjunction with former Fire Chief Carlton Galster and other city officials, put together a communications center in the municipal fire station and will man it during emergencies.

In the event of a hurricane or other natural disaster, the center would be manned 24 hours a day and could be used to relay messages between emergency crews in the area, said Felix "Ski" Karpinski, WB4AOG.

In addition to using the communications center for emergencies, Karpinski said the club also will use it to teach others about Amateur Radio.

—Tribune, Zephyrhills, FL □

Indiana amateur groups active

Bruce Woodward, W9UMH

In a flurry of activity associated with Fort Wayne's Three Rivers Festival, 9-17 July, members of the Fort Wayne Radio Club (FWRC) and Allen County Amateur Radio Technical Society (AC-ARTS) provided three excellent examples of public service and positive public relations.

The festival was kicked off with a 125-unit parade on the 9th. Amateurs provided coordination communications for parade officials.

On the weekend of 8-10 July, members of the two clubs set up a "World of Amateur Radio" exhibit in the city's largest shopping mall. The exhibit, in its seventh year, featured display modules showing a dozen key aspects of our hobby such as QSL card collecting, operating a Novice station, learning code and handling messages. People passing by were invited to send messages via NTS, and many sign-ups were taken for code and theory classes. As an official festival event, this exhibit was listed in all festival publicity.

The third event supported by Fort Wayne's amateurs during the festival was a new one — the mini-triathlon, held on Saturday, 16 July. This event consisted of a 1-mile swim, a 50-mile bike race and finally, a 13-mile run. Amateurs were stationed around the lake and along the bike and run routes at medical aid stations to report progress and watch for problems.

FWRC is Indiana's first special service club and the AC-ARTS application for SSC status is in the mill. At least 50 different amateurs supported these three public service activities, and all were pronounced resounding successes by their sponsors.

These events show that most amateurs still believe that public service is as much a part of being a ham as is chasing DX or talking on a repeater. Ask those who took part. They'll tell you that public service can even be fun! □

Georgia amateurs busy during triathlon

Richard Smith, WB4APG

Five years ago, on a pre-dawn occasion, 12 adventurous souls embarked on a test of their physical endurance, which included 1.2 miles of swimming, 53.3 miles of cycling and 13.5 miles of running — all done against the all-too-rapid movement of time. Steve Lynn, who finished third in that first test, died in an unfortunate accident just a few months later. His friends have sought to honor his memory by renaming the event the Steve Lynn Triathlon.

To that end, we found ourselves on 18 September 1983, waiting in the pre-sunshine morning for the start of the 5th Annual Steve Lynn Triathlon. At 0707 hours, three minutes before official sunrise, my 2AT speaker announced, "They're off."

Down the river in the quiet morning you could hear the faint sound of the whistle from the tug which was used to pull the starting barge into place. Gill Kearns, W4NNB, was at the swim start and passed the start information up so those waiting with me could start their timers and begin looking downriver for the contestants.

The air temperature was about 70 degrees, with the water a warm 81 degrees. The swim is in a tidal river, so at the start — which was just before high tide — competitors had approximately 20 minutes before the tide turned, when they would be swimming against the tide. The leader made it in less than 30 minutes, but some of those in the back of the pack had quite a difficult swim.

As the 201 contestants started their cycling, Don Collins, KA4BLS, was sent in the car with the race director to keep an eye on things around the track. As usual, we had an amateur as part of the staff of all five fluid stations.

The day started warm and humid and got hotter by the hour, with a high temperature of about 90 degrees. Water was a problem and Art Doughty, WU4E, was kept busy with the water wagon as calls came in for refills at the stations. About two-thirds of the way through the run, we received word that one of the runners had been overcome by the heat and exhaustion. He was picked up and transported back to the starting area.

The 145.23/144.63 K4NLX repeater worked well during the almost eight hours we worked the event. We were able to use our HT's most of the day. A 535 ft.-high antenna comes in handy.

This year, we had our first two-time winner. Earl Owens of Charlotte, North Carolina won again this year with a time of 4:20:18, which was a little slower than his 4:10:31 of last year. The first female was Kitty Glass from Hilton Head, South Carolina, in a time of 5:03:14 in 19th position.

Again, the organizers of the event were very thankful for all of the assistance from the hams. The amateurs were again given the chance to hone their public service talents to a fine edge. We look forward to working these events because they give us a chance to get Amateur Radio before the public and do some public relations work for our hobby. □

California Special Olympics

Jerry Pixton, AFB6CV

On 25 and 26, June MARS communicators from Northern California provided radio communications for the California Special Olympics. This event, normally held in Los Angeles, was held at the University of California at Berkeley for the first time.

All of the many agencies that make the Special Olympics happen, had to work together in a strange environment. Having MARS communications at each game site made the logistics much smoother, and at times was critical to the health of the athletes.

A portable repeater was used on VHF to tie some game sites together, and VHF simplex was used as an operator training and command/control link to the MARS Command Post. Four game sites were covered this way.

Jerry Pixton, AFB6CV, served as Project Manager; Tom Walden, AFB6TW, recruited the MARS operators; Nancy Pixton and Maryfrances Walker obtained all the liaison persons and scheduled the operators and liaison persons each day. Randy Walker served yeoman duty, assisting installing the repeater and other equipment. □

Focus on Amateur Radio

J.A. "Doc" Gmelin
W6ZRJ

Recently I attended the "old-timer's night" held by a local radio club in my area — the Santa Clara County Amateur Radio Association (SCCARA). Since I joined the club in September 1946 and am a Past President, I guess I qualify as one of the "old-timers" who attended the affair.

In thinking back over my nearly 40-year association with the club, and thinking of changes in Amateur Radio during those years, I was reminded of the proud tradition we radio amateurs have established in less than a century.

The entertainment for the evening was the viewing of two videotapes on Amateur Radio. One was about the League's latest program on the Space Shuttle and Owen Garriott, W5LFL. The other was a locally produced TV program which featured a segment on Amateur Radio.

Both programs are aimed at the general public, and both stress the difference between Amateur Radio and citizens band, stressing the fact that amateurs must pass both a code and technical test in order to be licensed.

Amateurs are proud that their radio service requires the passing of these tests, which represent *achievement* for those who become radio amateurs.

The program on the space shuttle is, of course, the latest in a long line of achievements that I've been privileged to see during my time with SCCARA and Amateur Radio.

There is one disturbing aspect of the local radio club "old-timer's night." That is the fact that while there are some 5,000 radio amateurs within the area served by the club, there were less than 50 people who attended the affair. The fact that there is a second club and several repeater clubs in the area has a lot to do with the lack of attendance in this particular club, but the real reason may be that there are now so many specialized radio clubs.

This fact is disturbing to me because I view it as a continuing fragmentation of Amateur Radio caused by so much specialization. There are DX clubs, contest clubs, RTTY clubs, SSB clubs, VHF clubs and repeater clubs, to name only a few. The result has been less support for the local "general interest" Amateur Radio clubs that were just about the only kind of ham clubs active when I first became an amateur.

Specialized clubs, of course, push *their* special interest in Amateur Radio, featuring speakers and other events aimed only at their particular special interest. This can be unfortunate, because the members of those specialized interest clubs are then not exposed to other facets of Amateur Radio.

A second problem is the fact that specialized clubs generally push the League and FCC for items that will better their particular interests, even at the sacrifice of other interests in Amateur Radio.

As an example, it's interesting to note that most "phone" DXers are interested in phone-band expansion — not so much because the phone bands are crowded, but because they feel that with an expansion they will be able to "work the DX on their own frequencies."

Perhaps the phone bands should be expanded, as was done on 20 meters, but let's hope that in doing so we will look at the entire picture and see the possible effect on *ALL* of Amateur Radio.

Another area of concern caused by the dividing of Amateur Radio into groups comes from the FCC license structure itself. Where there were only three classes of license in 1947 when I started, with Class C being in effect the same as Class B, there are now five classes of license, each with different operating privileges.

When I was Director of the Pacific Division, I had constant pressure from one group or another to ask the FCC for changes in the operating privileges of one class or another. Novice operators asked for phone on 6 meters and above; Technicians asked for the same privileges as General Class; Generals and Advanced asked for a return to the days when General, Advanced and Extra could use the entire phone band, and Advanced Class amateurs would ask for an Extra Class exam without the 20 wpm code test.

What's worse is the fact that often amateurs of "lower" class just gave up and didn't care about advancing, and in fact, could care less about the amateurs of other license classes.

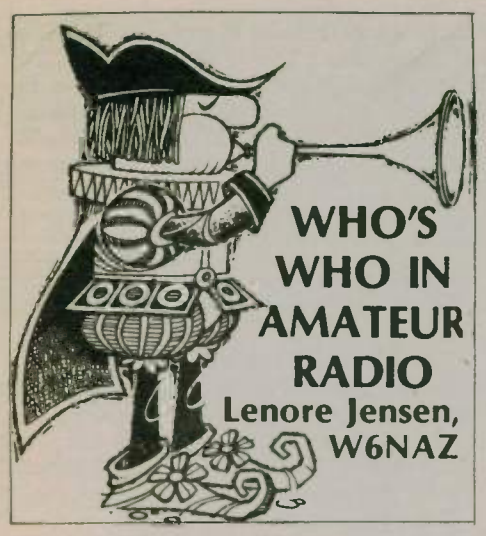
I once had the holder of a Technician license tell me that as far as he was concerned, the FCC could take all the low bands away from Amateur Radio. Since he couldn't use them (without taking another test), he didn't care if anyone else could use them either.

These conflicts between amateurs can only weaken us in the united stand we must take if we are going to keep and expand our bands and keep Amateur Radio strong through a strong licensing program.

It was heartening to see the strong stand most amateurs took in terms of keeping the code as one of the requirements for obtaining an amateur license. Let's hope we can come together for a united front on frequencies, modes and operating privileges as well.

As Benjamin Franklin said, "We must all hang together or we will certainly hang individually."

My hope is that we amateurs will work in a united front, and the local general radio club might be the best place for us all to come together. □



"I can't think of any other job I'd trade for mine," says Jack Chapman, W6DQE, a sound engineer for the popular TV show out of Hollywood called *2 On The Town*, KNXT, Channel 2.

For six years, Jack has traveled around the world as well as the United States as part of a two-man team doing sound and camera videotaping with the stars, Melody Rogers and Steve Edwards. They've been in privileged places, such as King Tut's tomb (fabulous, he reports, and remarkably tiny for all the treasures it once held), where they had the rare opportunity to take a camera.

Jack remembers many hours in a helicopter flying low within the Grand Canyon; witnessing, up close, heart and cornea transplant surgeries; even "seeing a plastic surgeon banging with a little hammer and chisel on a girl's nose" and the like.

His Emmy (a surprise and a thrill!) was for their work on a segment done in Egypt for which they covered the pyramids, sphinx and many cities.

"Remember," says Jack, "glamorous as it all is, the work isn't exactly a joy ride. My recorder, mikes, cables, etc., weigh about 35 pounds, and they can get mighty heavy during a long day of moving about. And sometimes, overseas, we *may leave* our hotel at 6:00 a.m. and not return till after midnight!"

"And I'll never forget the effort of lugging that equipment up that small, steep, slanting tunnel in the Great Pyramid — the tunnel is only 4 feet high. Or rushing all over Paris with the gear. But, of course, the experience is wonderful in retrospect."

There can be scary moments, too. "Have you seen a harbor pilot arrive next to a huge ship and scurry up a rope ladder? Well, we did that, carrying our equipment. As you know, the small boat gets parallel to the big one, both going the same speed. So you just reach for the rope ladder, start up while the little boat leaves . . . and if you look down at the sea beneath and up, up, up to the deck . . . well, it's quite a feeling!"

Another one he doesn't want to repeat was atop a high building on the Sunset Strip. The producer needed a shot showing the city of Hollywood and Hollywood Hills areas in the background. When the crew reached the roof, it was discovered the only way to get to the best vantage spot was to edge one's way around a structure that came to less than three feet from the edge of the roof. Worse, it was gravel underfoot. So Jack and his partner — then Van Carlson — gingerly made their way without benefit of handrail, careful not to look down all those stories to the street below.

"At one point," Jack recalls, "my foot slipped on the rocks and I thought my days were over. But somehow we made it. However, once at the taping spot I had a hard time concentrating for thinking of the return trip! But it wasn't so bad that time as I slung my recorder over the *inside* shoulder so it wouldn't tend to pull me over the edge as it had the first time."

His Amateur Radio experience "was invaluable" in his work, and not only because he frequently uses RF mikes for the performers to avoid cables. They are Vegas — operating between 108 and 200 MHz — and their range can vary from 10 to 200 feet "depending on local propagation, believe it or not!"

Soundman Jack Chapman, W6DQE, and his Emmy. ***(Photo by Bob Jensen, W6VGE)***

"RF microphones are interesting, with the transmitter no larger than a cigarette package, worn concealed. The performer wears a belt with a Velcro closing and a little pocket in the small of the back for the transmitter.

Then there's a small wire up to the mike. Naturally I try to get the mike as close to the face as possible, and the cameraman and I have friendly arguments as to whether it's to be hidden behind a tie or sweater, which muffle the sound. Other times I may use a "shot-gun" mike, a telescoping deal, and point it at the scene. I also have a small audio mixer if we need more than two mikes. My recorder's two channels work nicely when there are but two. It's a Sony BV 110."

Jack first met shortwave radio in his city of birth — Manila, Philippine Islands — where his father was a teacher. "About 1936, a friend showed me how to build a tuned RF receiver and I discovered I could hear, with a folded dipole, the BBC. I kept thinking about getting a ham license and finally secured an appointment to take the test: 08 December 1941. Instead of that, I was interned with my family at Santo Tomas on the University grounds. We lost our home and all our possessions."

"Fortunately, some of us were repatriated (in exchange for Japanese prisoners) and taken back to the United States. Four months later, I was in the Army and before long, stationed in Manila!"

After hostilities, Jack returned to Hollywood, became W6DQE and began work at a recording studio, until 1953, when he joined the CBS radio station KNX. One of his favorite shows then was "sitting across the glass every morning from the talented Bob Crane, "until the latter went off to make *Hogan's Heroes*.

Transferring to TV in 1967, Jack's been busy on all kinds of shows until he started *2 On The Town*. Although many of the programs are taped locally, he travels a lot. ("Too much," says his wife, Larene, of 33 years. They have a son, Don, and two small granddaughters.)

The trip to Hong Kong and then Tokyo saw him whizzing along on the famous Bullet train (134 mph, fantastic, and right on time as advertised!). An even faster train ride was from Paris to Marseilles (164 mph, seeming to float on a silent track, completely automated, such as for slowing at curves. . . . "we rode in the cab").

The French Riviera, Monte Carlo, Rome, Venice, London — all have been taping locations. "We come home with

about 38 times the amount of tape that will end up on the show." The program is scheduled to start, in a similar fashion, in New York City and London, over the BBC.

"By the way," asks Jack, "I wonder if anyone can tell me why I picked up ignition noise on the sidewalks of London but nowhere else?"

Back home on a hill near the San Fernando Valley, Jack takes Amateur Radio very seriously. His roomful of gear takes full advantage of all bands, with special emphasis on RTTY plus computer. He's run a very great number of phone patches for Army MARS, particularly during the Vietnam conflict. He enjoys handling messages when needed and has participated in various sea rescues.

"Public service is what we're here for; it's what Amateur Radio is, or should be, all about."

For 20 years, Jack has kept morning skeds — when he's home — with his friend Dick Fox, W7EFS. They also talk to many other Oregonians, JJ1UMS, J. Ibrahim Axford, 9M2GV, and countless maritime mobiles on 20.

As another hobby, he has photography. In fact, he and a partner have established a little freelance business of photographing social events.

"Be sure to mention," he urges, "that at CBS, as at the other networks, we have a great many licensed hams on the staffs. They'll all tell you that Amateur Radio can be a great help in broadcasting, not only technically but in the tradition of camaraderie — knowing how to get along with all people!"

His producer, Joel Tator, would probably tell you that Jack Chapman, W6DQE, is an excellent example. □

New WIA member

Ken McLachlan, VK3AH

Mary Ann Crider, WA3HUP — one of the better known QSL managers — recently became a member of the Wireless Institute of Australia (WIA).

As soon as the WIA decided to accept overseas members so they could receive the many VK awards and the monthly magazine, **Amateur Radio**, Austine Henry, VK3YL — who was licensed in 1930 — lost no time in proposing Mary Ann as a member. Mary Ann became the first WIA member with full privileges outside of Australia and the territories.

Very little is known of Mary Ann by even the 50 odd stations that she has in her stable. One of the amateurs who is dependent on Mary Ann is Father Dave Reddy, CE0AE, and he claims Mary Ann is one of the best QSL managers in the business. This statement would be substantiated by any one who has had dealings with this very friendly lady.

Mary Ann received her Novice license in mid-1967. Within eight months she upgraded to her General Class. Three hundred DXCC countries worked and confirmed, she met the challenge of obtaining the unrestricted Advanced Class license in 1976. The frequencies that contained all those elusive call signs were now at her disposal.

After obtaining her license, this energetic lady thought she might be able to assist amateurs who were located in much-wanted and remote areas, by giving them more operating time by doing their QSLing chores for them. Much encouragement was forthcoming from Bob Beaudet, W1YRC, who was famous in his own right as an expedient processor of cards in the pasteboard derby.

The phrase "QSL via WA3HUP" has been used by some 52 stations — some now QRT, but the cards still come and the logs are still available for checking against. Mary Ann recalls that the station that required the most QSL'ing was 8Z4A, which was activated in late 1978. This expedition attracted some 40,800 contacts, and so far, over 30,000 cards have been received and answered. The maximum output at one time was an average of 350 cards per day on this station, as her duties for the other stations could not be neglected.

This very affable lady is seventh from the top of the WIA DXCC with 310 countries out of a possible 316. □

What luck!

Maynard Weston, W8MW, needed a ticket for the Cleveland Hamfest banquet and contacted John Esterly, W8RAK, to get it for him.

John bought three tickets — two for himself and wife Doris, one for Maynard. He also puzzled over which one he should give to Maynard — certainly not the lucky one, he hoped, as he finally selected one of the three tickets and passed it on to W8MW.

Well, you guessed it! The ticket that went to Maynard was the lucky ticket — winning a frequency counter!

— Lake Erie ARA, Cleveland, OH □

DX WORLD

John F.W. Minke III, N6JM
6230 Rio Bonito Drive Carmichael, CA 95608

Activities Calendar

27-29 January	CQ World Wide DX 160-Meter Contest (CW)
18-19 February	ARRL DX Competition (CW)
03-04 March	ARRL DX Competition (SSB)
24-25 March	CQ WPX DX Contest (SSB)

Desecheo (KP4)

There is a possibility of a DXpedition to Desecheo the first week in January, provided the necessary funds can be raised. The operation by Jose Maldonado, WP4ATF, and HI3RST expect to make at least 3,000 contacts on SSB with some CW operation. Contributions will be happily accepted and may be sent to Jose I. Maldonado, P.O Box 449, Palmer, PR 00721.

Malpelo (HK0)

There seem to be mixed feelings regarding the recent HK0TU DXpedition, and most of the West Coast lost out again. The original plans included one of the stations being lifted to the top of the island, 300 meters above sea level. About 21,000 contacts were made — 9,000 by a single CW station and 12,000 by three SSB stations, but the locations did not favor the West Coast and Japan. *The DX Bulletin* reports that the operators felt they had satisfied the West Coast demand this time. This DX editor never heard them. No complaint here as I didn't have my 2-meter rig on listening to the NCDXC repeater.

Signals into the central regions were not good either, as members of the Kansas DX Association reported that HK0TU was extremely weak most of the time. Perhaps this little quote will sum it up:

"Malpelo came and went
My DX energy is all spent,
I didn't work them even once,
I guess I'm just a DX dunce."
—N6XI (One hour after shut-down)

Burundi (9U5)

James "Bull" Bullington, N4HX, has been busy handing out Burundi signing 9U5JB. At the time of this writing, Bull is using only a dipole, but plans are in the making for additional antennas, including a 40-meter quad and phased-verticals on 80 meters. Look for 9U5JB on 10 meters between 1500 and 2000 UTC, with the most reported time being 1900 for stateside contacts. Most likely you will find Bull near 28.550 MHz. A few years back, Bull operated as TYA11 in Benin. All QSL cards for Bull go via ON5NT.

Also reported from Burundi is 9U5AC on 28.389 MHz at 0930 UTC, working Europeans.

Marshall Islands (KX6)

From Kwajalein, Jim Melody, KX6JM, continues to be active on SSB on 15 meters near 21.300 MHz from 2300 UTC. He was worked here on the West Coast on 21.296 MHz at 0030 UTC.

Keeping him company on SSB is KX6OA, reported on 14.305 MHz at 0400 UTC, KX6OH on 14.310 MHz at 0500 UTC, and KX6OR on 21.373 MHz at 0400 UTC.

If you wish a CW contact, look for KX6QC who has been reported on 28.011 MHz from 2200 UTC and later on 14.021 MHz at 0100 UTC.

Galapagos Island (HC8)

The frequency on which to stand by for HC8GI is 21.345 MHz, as this station has been reported often on this part of the band at 2300 UTC. This station has also been reported as early as 1800 UTC, working into the central reaches of the United States.

There was to have been a DXpedition in November by Alfredo Solines, HC2SL. This was an all-band affair, both SSB and CW, signing HC2SL/HC8. QSL cards for this one go to HC2SL, Box 5757, Guayaquil, ECUADOR.

Liechtenstein (HB0)

Most DXers have this one, but in case you don't, look for HB0NL who is very active on several bands. He has been reported on 7.009 MHz at 0600 UTC, 14.026 MHz at 1200 UTC, 21.024 MHz at 1400 UTC, 28.026 MHz at 1300 UTC, and the two new bands on 10.104 MHz at 1000 UTC and 18.075 MHz at 1130 UTC. Also reported from Liechtenstein is HB0BHA on 7.004 MHz at 2300 UTC and 10.107 MHz at 2030 UTC.

Earlier in the fall there was an operation by DJ3XD, signing DJ3XD/HB0, with most reports on the low end of 40 meters CW, mostly around 7.005 MHz from 2300 UTC. This station is probably gone by now.

Franz Langner, DJ9ZB, was reported to have been active in the CQ World Wide DX Contest in October, using the call HB0BOE. Some activity on CW before and after the contest was in the plans.

Zimbabwe (Z2)

At least six stations have been reported active from Zimbabwe, formerly Rhodesia (ZE). Mal Z23JO has been busy on 10 meters, both modes, working the East

Coast and has been found on 28.577 MHz and 28.643 MHz on SSB, and 28.037 MHz on CW. The times he has been found begin at 1300 UTC. Mal is a Worldradio subscriber and has contributed to the 'Antique QSL Department' with several of his oldies when he operated as G2SO and later ZE3JO.

Other active stations include Z21DR worked on 7.005 MHz around 2200 UTC, Z21GC on 14.179 MHz at 2300 UTC, Z22JK on 14.160 MHz around 1300 UTC, Z24JS on 28.033 MHz at 1700 UTC and Z21AO on 21.335 MHz around 2000 UTC. The last station is the only one reported working into the West Coast.

Prefixes

Those RX4 and RK4 Soviet prefixes were on 29 October through 30 November to celebrate the 425th anniversary of the union of the Udmurt Autonomous Socialist Republic with Russia. The capital of that little autonomous republic is Izhevsk.

Also on from the Soviet Union was RW9A, a contest call used by UK9AAN.

During the latter part of October, the call GB0CSR was activated. The *DX News Sheet* reports that this was the first 'GB0' prefix, although another call of the same prefix — GB0WCY — has been activated from the Isle of Man and should be on through Christmas Eve. QSL this via G.E. Hayes, GD3KHE, 11 Central Dr., Onchan, Douglas, ISLE OF MAN.

IOTA

Island hunters might look for the following:

EU-42 DL2FBH/A	North Frisian Islands	7.047 2045
EU-81 JW5QAA	Hopen Island	14.002 1330
EU-27 JW5CI	Bear Island	

See last issue for details on the IOTA awards program.

The recent DXpedition to Pribilof Islands by the Alaska DX Association may or may not count as a new DXCC country. It does, however, count as a separate island group for the Islands-on-the-Air program. The island group is designated NA-28 in Geoff Watts' listing.

160 meters

The following DX calls have been reported on the top band. Frequencies and times are in megahertz and UTC.

7X5AB	1.845	2145
T32AF	1.824	0645
TF3SZ	1.850	2330
SV5OX	1.851	2130
CO2BG	1.835	0245
KG4CD	1.828	0430
ZF2ØBN	1.835	0230
ZL3GQ	1.835	0630
3D6AK	1.825	0215
7X2AÑ	1.832	0315
VP8ANT	1.820	0500
YV3ANT	1.825	0600
EA8AAU	1.834	0400
FG7AM	1.827	0500
JW5NH	1.825	0400
HH2VP	1.809	0500
HI8DAF	1.832	0200

Rodrigues Island (3B9)

During the last several weeks, 3B9FK was busy on most bands, both CW and SSB, giving out a new one for the deserving DXer. Although most reports indicated contacts with the East Coast, several did work him from the western reaches. The operator should be back on Mauritius by now signing with his home call, 3B8FK. Send your QSL cards for 3B9FK to 3B8FK.

Surinam (PZ)

Surinam is one of those smaller South American countries near the top of the continent. Formerly Netherlands Guiana, this country has been represented by PZ1AC, who has been worked on 7.003 MHz around 2200 UTC, PZ1AP on 3.501 MHz at 0200 UTC; PZ1BS on 14.200 MHz from 1100 UTC; PZ1DT on 14.005 MHz around 0200 UTC; and PZ1DV on 7.005 MHz from 0300 UTC. The reports are from DXers residing on the East Coast of the United States.

Guam (KH2)

Several stations have been reported active from Guam Island, part of the Mariana chain of islands. KD7P/KH2 has been reported numerous times on several bands operating SSB. This one has been reported on 28.539 MHz from 2100 UTC and again on 3.791 MHz around 1100 UTC working the East Coast. European stations should take a listen for this one on 21.310 MHz around 0900 UTC, 7.085 MHz at 1900 UTC and 3.791 MHz at 1930 UTC.

Other Guam stations include AH2B, found on 3.782 MHz at 1200 UTC; AH2G on 7.006 MHz at 1300 UTC; AH2AN on 14.197 MHz at 1300 UTC; and WA0OII/KH2 on 28.533 MHz at 2300 UTC. The former prefix still exists out there with KG6JJH being worked on 28.534 MHz at 0830 UTC.

Macquarie Island (VK0)

VK0GC, fairly active in recent months, has left the island and will be reassigned directly to the Antarctic. QSL cards for VK0GC should be sent via O.C. Benning, VK3RK, and will be answered by the operator, G.R. Carter, VK3GC, when he returns home to Australia in April. VK3RK's address is 194 South Rd., East Brighton, Victoria 3187, AUSTRALIA.

The replacement station on Macquarie Island is VK0CK and is already busy easing the demand. Reports indicate that he can be found on 14.193 MHz from 1000 UTC. QSL cards for this one should be sent via K.W. Gooley, VK2BGZ, 230 Livingstone Rd., Marrickville 2204, NSW, AUSTRALIA.

ARRL National Convention

The recent ARRL National Convention in Houston was attended by many DXers, and as in most League affairs, discussions were centered on DX.

One such topic concerned a paper submitted by Martti Laine, OH2BH, proposing the abolition of spotting nets during ARRL-sponsored contests. The issue was intended to address the "within 500 meters" requirements and the "single operator" entry. The entire discussion was devoted to the cheating aspect and whether or not cheaters could be controlled through rule changes, peer pressure or any other means.

Finally, the audience was polled with an approximate vote of five to one to leave the rules as is. Some of the concepts and comments from that discussion are as follows:

- Spotting nets are unique to metropolitan areas.
- Spotting net rules are unenforceable.
- Total enforcement is not necessary to effect an improvement in contesting.
- Contesting serves many worthy purposes beyond "win, place and show."
- Create new category for single operator and 2 meters.
- The few percent that do not follow the present rules will not follow future rules.
- The "spirit of the contest" and intent of the rules need to be emphasized.
- Return ethics to a place of high value through gentlemanly and gentlewomanly behavior.

Car Nicobar

The following article appeared in the November 1983 issue of the *Bulletin*, the official newsletter of the Southern California DX Club. The article, "Another rare one . . . vintage 1947: Car Nicobar," was written by Jim Smith, VK9NS, and is one of the many fine items that appear in the pages of this excellent DX club newsletter.

As a young signals type in the RAF, I was posted to Changi in Singapore. In those days (1946, 47, 48) much of our time was spent preparing Dakota aircraft for return to Egypt. This was one of the collecting points for material supplied under Lease Lend.

Very keen . . . we got stuck into BC375, BC348, SCR522 and all the Command Series equipment. We marveled at the workmanship and top quality components used. These and many others were the source of bits and pieces for the Home Brewer.

Anyway, to get to the point of all this, one day my Commanding Officer informed me that I was going on detachment to the Nicobar Group. Car Nicobar Island was an important signpost on the way for the aircraft as they staged back to Egypt via Ceylon. A major high-powered MF beacon provided valuable enroute DF.

All too soon I was on my way for a one-year stint on this island I knew nothing about. All agreed, however, I was very lucky to get such a post. After a forced 10-day stay in Butterworth in North Malaya due to a polio scare (we were put in immediate quarantine on arrival from Singapore), we were finally on our way. We boarded the Dakota for the 500-mile haul to Car Nicobar.

The sight of the island was breathtaking, especially to a newcomer to international travel. A short two-day handover . . . and the newcomers were in charge.

Basically, the 12-man detachment supported the Signals Staff as we kept the beacon going under all the usual tropical faults. The climate was very humid. In addition, there was an airfield for a possible diversion for our staging aircraft. An idealistic life with hard work thrown in but a local population who thought the world of us (they had been occupied by the Japanese).

I became more and more amazed at Fitz, our radio operator, as he handled mountains of traffic all on CW. Several weeks later I could send and receive Morse at a reasonable rate; in fact, I even helped with traffic in due course.

Fitz had vaguely talked about the amateur bands as a source of plain language practice. As he patiently explained *es*, *bcnu*, *73*, *QTH*, etc. I became really hooked. Using the station's standby AR88 I started to monitor CW and phone on 20 metres. Only the one above knows how many BC610s were in use in the Pacific area. Many of the signals were just tremendous. All seemed to be *AA*: KG6AA, KP6AA, KX6AA. . . .

So it was the amateur bands for me and CAR appeared on the 20-metre band. My first QSO was with Robbie VQ4ERR. I had followed him for some time, and he was always outstanding. We were to touch base many times over the years.

Harry VS7PH (also XZ2PH) was also a strong guiding influence as he helped me along my slightly illegal path. Drawings of a simple 6V6-6L6 rig followed, and everything done to improve the signal. The transmitter used was our backup T1154, an RAF transmitter on all our bombers. It was the usual MO/PA design with a massive chunking relay which changed everything from Tx to RX in one foul swoop. On CW your arm ached and brain tired as you willed that relay across. The rig would drift through the 20-metre band; you reset it and the process started all over again.

(please turn to page 24)

ICOM IC-25A/H

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The smallest 2 meter FM mobile on the market is now even easier to read and use with a green LED readout and a compact touchtone®/scanning microphone and gives you the option of 25 or 45 watts.

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45 Watts

The New 45 Watt IC-25H. Only slightly longer than its companion IC-25A, the IC-25H packs a powerful 45 watt punch. This 45 watts of power eliminates the need for an external power amplifier in fringe areas and gives a savings of space and wiring.

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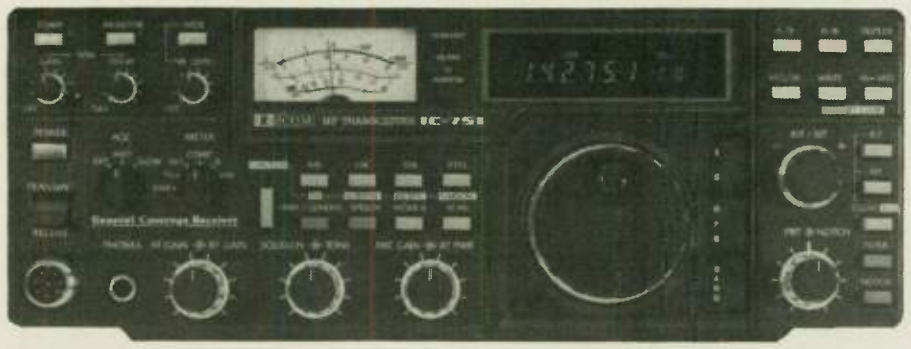

IC-751 **General Coverage Receiver**
9 Band Ham Transceiver

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- Passband Tuning
- Internal Power Supply Option
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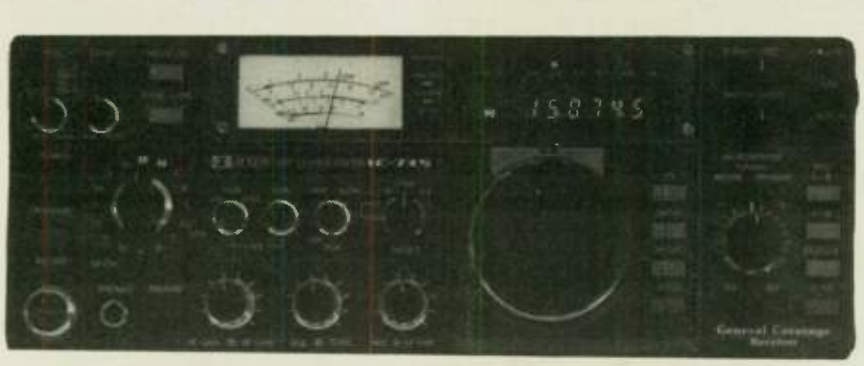
- Dual VFO
- Multiple Filter Options
- 100% Duty Cycle



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- PBT
- AM Recieve
- FM Optional
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- Scanning
- 100dB Dynamic Range
- Internal Power Supply Option
- Dual VFO
- Multiple Filter Options
- Mode Memory
- Squelch
- CW Keyer Option
- 100% Duty Cycle

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- PBT Option
- CW Filter Option
- 100dB Dynamic Range
- 12 VDC Operation

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DX World

(continued from page 21)

Needless to say, I came to know the Sixes. W6AM, W6DZZ and others chased me up and down the band. I was to keep in touch with several of them over the years.

QSL? Oh, yes, we were quickly roped in to provide this, and most of my confirmations followed the same pattern: a letter written to confirm the QSO, sometimes with an apology about the rig. One Six sent me a 7 MHz crystal for doubling into the CW end of 20 metres. VQ4ERR was probably my first QSL and VS7PH the second. I have a photocopy of my letter to Robbie, supplied by him many years ago.

Ed W6DZZ sent me a ready-made card. Fill it up and sign. I am grateful to Ed for our brief telephone call during my recent trip to the States (and to the guy who got his number for me). Ed took me right back to my beginning in Amateur Radio, to Car Nicobar, and to my return to Singapore when I very soon became legal as VS1BQ.

Antique QSL Department

Here is another one of those old-time QSL cards from China. This one is dated 18 March 1937 and was submitted by Dick Saunders, W6MUO. The call XU8CB was used by E.W. Brambleby, probably of Shanghai. This card (5″ × 7½″) was a "Special Coronation QSL" commemorating the crowning of King George VI in 1937. Dick reports that this followed the abdication of the former King Edward VIII. Shanghai was a British Crown Colony at the time.

This card was multi-color with the crown and rope printed in yellow, the banners in red and the printing in blue. It was rather difficult to reproduce the beauty of this card here.

Reader comments

New subscriber Orville Schmidt, W7LTA, writes: "On page 24 of July 1983, (Worldradio 'DX World'), I was surprised to see the NY2AE card shown and could hardly believe my eyes. I dug through my SWL cards from Indiana and the QSO/QSL from Montana, and sure enough, I have the same card. W6ITH received his as a true-blooded ham and I received mine as an SWL while in Indiana. Thought you would like this."

Orville's SWL card is dated 26 February 1936 for 20-meter PHONE. He went on further to say that the story on the NY2AE QSL card induced him to become a subscriber. That's what we like to hear. And so does bossman Armond!

We received a note from an amateur, evidently new to DX, saying he had worked a ZF2DR, but didn't know where he was or what country he was located in. The country, OM, is the Cayman Islands. This surprised me that he wrote to Worldradio as the ZF2 prefix is the normal prefix for that country and could easily be found by checking any DXCC list, found in the ARRL Handbook, logbook or several other publications available from other sources other than ARRL.

QSL information

Effective April 1984, the new address for Neil Penfold, VK6NE, will be: 2 Moss Court, Kingsley 6026, West Australia, AUSTRALIA. Neil is the QSL manager for VK9NYG, VK9YE, VK0HI and VK0CW. The latter two do not apply for QSL cards from the United States or Japan.

Matt WB8SSR writes that he is the QSL manager for YI1BGD. QSL cards for this station normally were to be sent direct. Matt says, "He is a chronic no QSLer, so finally convinced him to be manager." We have not heard anything new on this, so if you do happen to work YI1BGD, be sure to ask him how to QSL — via WB8SSR or direct.

I received a list of DX calls from a new subscriber that he needed QSL routes for. The list contained 29 different calls. As this is a big list to research, I suggest that a QSL Manager's List be purchased. One good source of this is the famous "The W6GO/K6HHD QSL Manager List." The list is published monthly and contains over 5,000 DX calls and their managers. Subscription costs are $15 per year (or $1.75 for a single issue). Subscriptions and further information are available from Jay and Jan O'Brien, P.O. Box 700, Rio Linda, CA 95673. If you work DX actively, this publication is a must.

Oh, yes. In the list of those 29 calls, there were at least two that appeared to be incorrect — SG7N and 8H8JP. I don't know what band or mode you worked these two on, but perhaps it was HG7N and FO8JP that you worked. Or Slim!

John Parrott, W4FRU, another active QSL manager, has a new address: P.O. Box 5127, Suffolk, VA 23435.

Want QSL information on the latest Australian calls? Or would you just like to have an Australian Callbook? The 1983/84 Australian Amateur Radio Callbook is available for $5.75 from the Wireless Institute of Australia, P.O. Box 300, Caulfield South, Victoria 3162, AUSTRALIA. Be sure to make out your payment to the WIA in Australian funds.

Countries wanted survey

In the last issue, we ran the results of a DX survey that was conducted by *The DX Bulletin*. Although the countries needed survey was directed at the subscribers of this publication, it was a good overall indication of what was needed by all DXers, with the most-needed country at the top of the list.

DX News Sheet, published by the RSGB, conducted a similar survey among the subscribers. Seventy replies were received, and we have tabulated the results below — with the actual number, out of 70 — needing that country.

Rank	DXCC	Country	Needed	TDXB rank
1	CE0X	San Felix	55	8
2	XZ	Burma	55	5
3	VU7	Laccadive Islands	52	2
4	3Y	Bouvet Island	48	7
5	ZA	Albania	47	1
6	7O	South Yemen	42	4
7	HK0	Malpelo Island	35	11
8	XV	Viet-Nam	33	10
9	VU7	Andaman & Nicobar Islands	33	6
10	BY	China	31	9
11	FO0	Clipperton Island	29	22
12	KH5K	Kingman Reef	28	60
13	ZL8	Kermadec Islands	27	17
14	1S	Spratly Islands	25	20
15	KH5	Palmyra Island	23	48
16	5A	Libya	23	16
17	XU	Kampuchea	21	3
18	4W	Yemen	21	13
19	XF4	Revilla Gigedo	19	—
20	YV0	Aves Island	18	27
21	S2	Bangladesh	16	18
22	XW	Laos	16	14
23	S9	Sao Tome and Principe	15	19
24	VP8	South Sandwich Islands	15	29
25	KH9	Wake Island	14	—
26	YA	Afghanistan	14	12
27	TI9	Cocos Island	13	56
28	A5	Bhutan	12	26
29	T31	Central Kiribati	12	—
30	VK9	Meelish Reef	12	40
31	ZS2	Marion Island	12	24
32	3C	Equatorial Guinea	12	43
33	FB8W	Crozet	11	46
34	KH1	American Phoenix Islands	11	—
35	A6X	United Arab Emirates	9	15
36	BV	Taiwan	9	28
37	C9	Mozambique	9	25
38	5U	Niger	9	23
39	JD1	Minami Torishima	8	67
40	KH4	Midway Island	8	—
41	ET	Ethiopia	7	35
42	KC6	Western Caroline Islands	7	—
43	KH7	Kure Island	7	—
44	SV/A	Mount Athos	7	21
45	VK0	Heard Island	7	55
46	FR/G	Glorioso Island	6	33
47	FR/T	Tromelin	6	39
48	KH3	Johnston Island	6	—
49	VR6	Pitcairn Island	6	—
50	VK0	Macquarie Island	6	—
51	VP8	South Georgia Islands	6	30

The last column is where the country on this survey ranked in the survey conducted by *The DX Bulletin*. Note that several of the countries needed on this list were not even ranked in last month's survey of 74 countries.

QSL routes

A35JD	—ZL2BJU	SV1NA/SV5	—SV1NA
A71AA	—DJ9ZB	SV1OE/SV5	—SV1OE
A82LC	—SM4CWY	SV1OL/SV5	—SV1OL
A92NH	—W8LU	T2ADX	—JA3YKC
C30AAN	—DL8OH	T32AB	—N7YL
CE3DNP	—WB6WOD	T32AF	—KH6UR
CR9G	—PA0GMM	T32AQ	—AD8J
CT2FH	—W4JVU	T32AR	—W0RLX
DK9VC/4D1	—DK9VC	T32AS	—AD1S
DL7NS/HB0	—DL7NS	T77C	—M1C
EH3ITU	—EA3AOC	TE32WI	—TI2J
EL2Z	—K0LST	TE32CCC	—TI2CCC
EL7C	—DK5VI	TI1A	—K6HNZ
EN6A	—UK6AAJ *(See Note 1)*	TI1C	—K6HNZ
F0AHY/FC	—DL4FF	TJ1AF	—N4IAM
F0AOJ/FC	—HB9ASZ	TN9AJ	—Y25LO
F0OV/FC	—HB9BEI	V3A	—KB0G
FB8WH	—F6BFH	V3TV	—G3ATK
FB8WI	—F6GXB	VE7BBC/5N1	—VE7CXN
FG0HTB	—AD8J	VE7BBC/KH8	—VE7CXN
FK8CR	—F6EWK	VK2LHI	—WA2BFW
FM0GA	—N6ZV	VK2PSC/LH	—VK2WU
FO8JP	—F1BBD	VK9ZS	—VK6YL
FO0JE	—F3JE	VK0CK	—VK2BGZ
FO0JO	—W6GO	VK0GC	—VK3RK
FO0OJ	—K6HHD	VP2KBZ	—VE3KZ
FY7YE/FM7	—W5JLU	VP2MEV	—AJ6V
FY0DD	—W3BL	VP2VDH	—N6CW
G6ZY/EA6	—G6ZY	VP2VDQ	—AI5P
GB2WW	—G4AAQ	VP8AQA	—GM4GRC
GB0CSR	—G3KMA	VQ9DF	—WB6YBY
GB0WCY	—GD3KHE	VQ9JD	—N6AFD
GD4JUU	—VE3BXY	VU2JXO	—WA3TLB
GU5ENK	—ON7WH	VU8CP	—VU2CP
HB9AAX/ET3	—HB9MK	W8BI/VE2	—W8BI
HC2SL/HC8	—HC2SL	XT2EB	—DF5EO
HH2JR	—KA5V	Y34K	—Y24UK
HH2VP	—W1FJ	YB0ARK/9	—VK5IV
HL9TA	—K0LST	YB2ACN	—W8VX
HZ1AB	—K8PYD	YB3ARK	—K2LQ
J28ED	—W2TK	YB5ASO	—W4BBP
J37AH	—W2GHK	Z21AO	—VE3HK
J39CM	—WB2LCH	Z21GN	—NY4X
J73DF	—N4CRU	ZD7BW	—N4CID
JA3YKC/JD1	—JA3YKC	ZD9BV	—W4FRU
JD1GQK	—JN1GQK	ZF2DZ	—KC3DA
JW1UW	—LA1UW	ZF2FL	—N6RJ
JX6BAA	—LA7JO	ZF20BN	—W4HET
JY9TS	—WA3HUP	ZL2BKM/C	—ZL2HE
K0SD/HR2	—WB0MZB	ZL8AFH	—ZL2HE
KA4JRY/DV9	—KA4JRY	ZP5XDW	—N4DW
KB4FP/DU8	—N4CID	ZS3E	—K8EFS
KX6PW	—KH6GB	ZS6FU	—WB4LFM
L2X	—LU2DX	1Z9A	—W7PHO
LU3ZY	—LU2CN	3A2ARM	—I8EEQ
LZ0KEZ	—LZ1NE	3A3EE	—F9RM
LZ0KKZ	—LZ1YE	3B8FI	—3B8CF
N4SF/6Y0	—N4SF	3D2DM	—KE4OC
OH9TH/4U	—OH9RJ	3D2ZM	—K6ZM
OX3AX	—OZ5DX	3V8PS	—IN3RZY
OX3PT	—WA2TTI	4K1F	—UK3ACR *(See Note 1)*
PJ4CR	—WB2LCH	4K1GDW	—UQ2GDW *(See Note 1)*
PJ7A	—K1AR	4V2C	—NQ4I
PZ5JR	—K3BYV	5H3DM	—G3NXR
RW9A	—UK9AAN *(See Note 1)*	5N5RNS	—WB9VPG
SJ9WL	—SM4FTF	5W1DZ	—WB2LVB
SU1RK	—DL5JP	5Z4MX	—SM3CXS

BK	—F6EWK	9Q5JE	—DJ5TY
RE	—KC3EK	9U5JB	—ON5NT
CB	—W2MIG	9X5WP	—WB6VKD
JN	—KB2ZP	9Y4RD/ST0	—KA2DDJ
MM	—N7EB	9Y4RD/SU	—KA2DDJ

AA	—P.O. Box 607, Cheng Du, PEOPLE'S REPUBLIC OF CHINA
GP	—P.O. Box 1, Havana, CUBA
BX	—P.O. Box 638, Madeira Isle, PORTUGAL
AGF	—P.O. Box 123, Las Palmas, CANARY ISLANDS
LZ	—P.O. Box 265, Ceuta, via SPAIN
AM	—P.O. Box 1011, Monrovia, LIBERIA
EJ	—P.O. Box 672, Noumea, NEW CALEDONIA
WA/5V	—B.P. 123, Lome', TOGO
HO	—P.O. Box 25, Pirae, Tahiti, FRENCH POLYNESIA
ZN	—P.O. Box 65, 97462 St. Denis, via FRANCE
UW	—P.O. Box 146, Cambridge, ENGLAND
FU	—P.O. Box 12446, Benoryn, 1504 REPUBLIC OF SOUTH AFRICA
DBQ	—P.O. Box 584, Bogota, COLOMBIA
JCC	—P.O. Box C89, Managua, NICARAGUA
DP	—P.O. Box 2417, DJIBOUTI
DQ	—P.O. Box 1076, DJIBOUTI
DQ	—P.O. Box 1076, DJIBOUTI
EB	—P.O. Box 2417, DJIBOUTI
VD	—P.O. Box 220, Truk, E.C.I. 96942

OX5AR	—P.O. Box 1692, APO New York, NY 09023
PJ9HA	—P.O. Box 20, San Nicolas, Aruba, NETHERLANDS ANTILLES
S79SM	—P.O. Box 84, Mahe, SEYCHELLES
T2ADE	—C. Roberts, P.O. Box 5, Funafuti, Tuvalu, CENTRAL PACIFIC
TI2HP	—P.O. Box 952, San Jose, COSTA RICA
V3FB	—P.O. Box 108, Coro, BELIZE
V83PMP	—P.O. Box 6538, Bombay 26, INDIA
VP8ANT	—P.O. Box 146, Cambridge, ENGLAND
YS1OD	—P.O. Box 1300, San Salvador, EL SALVADOR
ZK2IK	—P.O. Box 37, NIUE ISLAND
3V8PS	—P.O. Box 473, Tunis, TUNISIA
6Y5EE	—P.O. Box 188, Kingston, JAMAICA
8P6QI	—P.O. Box 167, Bridgetown, BARBADOS
9X5PE	—B.P. 202, Gisenyi, REPUBLIC OF RWANDA

Notes
1. As in most QSL cards to the Soviet Union, they must be sent via P.O. Box 88, Moscow, USSR.

Contributors for this month's column include K2HRW, W4JFE, WA5KBH, W6MUO, AJ6V, W6BIP, W7LTA, WB8SSR, W9LNQ, VE7CXN, VK6NE, the Central California DX Club, Southern California DX Club, Northern California DX Club, Redwood Empire DX Association, Stark DX Association, Kansas DX Association, Kansas City DX Club, Heard Island DX Association, Grupo Argentino de CW, *Westlink Report*, *Amateur Radio* (WIA), *The Long Island DX Bulletin*, *The DX Bulletin* and the *DX News Sheet*.

We are looking forward to seeing some active DX'ing this coming season. We sure hope it will be better than the latter half of the summer when the bottom dropped out. But the DX is still there, regardless of what the band conditions indicate. The Northern California DX Club has a summer marathon among the membership, and the band conditions didn't seem to bother some of these DXers. In the CW-only listing, Bob Thorson, K6QR, came out on top with 187 countries worked during the 1983 summer season, with "Bip" Bachman, W6BIP, in second place with 159 countries. N6JM came in last with only 75 countries.

In the SSB-only class, Rubin Hughes, WA6AHF, led the group with 186 countries worked, with D. Reginald Tibbetts, W6ITH closely behind with 173 countries. In the mixed mode, where either mode had to be at least 25 percent, Charles McHenry Jr., W6BSY, was the leader of that one with 193 countries.

Have a Merry Christmas, and may you be blessed with exciting DX in 1984. Very 73, de John, N6JM. □

Making friends, DX-style

orge Oster, K0EDA

One of the real pleasures of Amateur dio is making friends from other coun-es, cultures and societies. Sometimes, ose acquaintances can be made in per-n rather than electronically.

Last summer I was able to combine a siness and pleasure trip to Liechten-in and operate portable HB0. Unfor-nately, a non-working power supply on 720 forced me to set up in the parking at out Alp-Hotel in Gaflie, in order to lize our rental car's battery. My wife, cky, patiently helped me string a dipole tween two pine trees overlooking a ectacular view of the Rhine Valley, 00 feet below. Vicky's patience grew n and my hamming enthusiasm grew s when trying to operate under such nditions. So, of course, much more htseeing replaced the radio. Neverthe-s, the sightseeing paid exceptional mming benefits.

One of our first trips was a hike in the autiful Alps. When rounding a sharp nd in the narrow path, we happened on a cabin nestled in the side of the ountain. Could that be a vertical and a ad with the coax leading to the cabin? e knocked, introduced ourselves and re invited in by Wolfgang DJ3TF/HB0 d Irmgard Wessely, DF5RT/HB0, and bias — their 9-month-old harmonic. We changed not only ham stories but rned of each other's jobs, families and mes. Vicky and I enjoyed a second visit later in the week and, of course, a picture-taking session.

Wolfgang and Irmgard's mountain cabin, with antennas in the foreground

Wolfgang DJ3TF/HB0, Irmgard DF5RT/HB0, Vicky and George, K0EDA/HB0 enjoy an evening of conversation.

Another side trip took us to the peak of the 10,000-foot Zugspitze in southwestern Germany, on the Austrian border. Perhaps it wasn't too unusual to happen across two amateurs in an Alps cabin, but we didn't expect to see anything except snow-capped panoramas atop the Zugspitze. The only way to the top is a 30-minute cog train and hair-raising cable car! The only inhabitants, we thought, would be fellow tourists and weather station personnel.

Two unexpected sights awaited us. Among the gaggle of microwave dishes and assorted commercial repeater and transmitter antennas, we found a portable amateur station operated by Johannes Schaefer, DG2ND and Edur Ounas, DB9US.

Johannes and Edur were experimenting with 1.25cm and 3cm battery-operated transceivers. They were coordinating with base operators in the Bavarian Forest via 2-meter portables. They graciously took time out to explain their efforts and pose for pictures. What a DX location!

It's certainly gratifying to make friends by Amateur Radio, but when those friends can be made in person because of Amateur Radio, the pleasure is even greater. □

DON'T FORGET . . .

Include first and last names with call signs.

AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX

AMSAT/UK's UOSAT-B

The UOSAT-B has been granted a launch opportunity with the next LANDSAT mission on a NASA Delta rocket sometime later in the spring of this year. The UOSAT-B will be, like UOSAT/OSCAR-9, a downlink-only scientific Amateur Radio satellite. The AMSAT/UK crew is making every effort to meet the scheduled launch date and is expected to be able to have this new bird aboard when the Delta is launched.

In our next column, we will try to have full details of the experiments aboard the UOSAT-B and the frequencies on which amateurs will be able to monitor them. The orbit is expected to be similar to that of UOSAT/OSCAR-9.

AMSAT/OSCAR-10 still continues to function usably with the Mode B (70cm to 2M) transponder being widely used around the world. The beacons on the Mode B transponders are being heard at all times. Just before perigee, the transponders are off until a short time after perigee. Mode B beacons are on 145.810 MHz USB and 145.987/USB. The former is the general beacon; the latter is the engineering beacon which will be on when the general beacon is off. The CW output on the general beacon is turned on for five minutes on the hour and half hour. The remaining times are telemetry data.

The Mode L transponder output is not as strong as would be expected. I heard a discussion on the 144.144 MHz USB AMSAT net on the West Coast (7:30 a.m. and 7:45 p.m. local time), in which the conjecture was that when the two bumps occurred at separation of the A/O-10 bird from the final stage of the rocket, not only was one of the 2-meter turnstile elements bent, but the Mode L helix may have suffered a bump which caused the omnivertical going through the center of it to short out a turn, reducing its efficiency somewhat.

By the time you read this, the STS-9 shuttle mission will have been completed. As this is written, the schedule is for the launch to take place on 28 November, with the landing on 07 December.

The frequency chart in our November issue should be referred to for the frequencies of the transponders on the A/O-10 space craft. Westlink tapes, ARRL bulletins, and RSGB (United Kingdom) bulletins are being transmitted on the bird's Special Service Channels.

We have previously reported on the A/O-10 QRP operations on Mondays UTC. This is, of course, Sunday evenings for most of the United States. Users are expected to transmit with powers as low as 3 watts or less.

Very successful QSO's have been completed in this mode. Which again brings up the point that uplink power to the bird need not be very great to access the transponder, particularly in Mode B (70cm up). When you transmit with excessive power, you defeat your purpose. The high-powered station reduces the output of the transponder so that the station you expected to snag may not be heard. It's like shooting yourself in the foot. No one wants to do that!

At the end of November, an event was scheduled which provided joint ARRL/AMSAT communications sessions at the Globecom meeting in San Diego, which was sponsored by the IEEE. At this meeting, there were panels on amateur communication, PACSAT and amateur satellite communications. Perhaps we can have a report in the next column of what was discussed in these panels.

AMSAT AMS-81 Tracking System

Access sked from 01 Jan 84 /0000 K6PGX via A/O-10

Day	AOS	LOS	MAX	DX/EL	AZ	Day	AOS	LOS	MAX	DX/EL	AZ
31DEC	1546	0231	2056	12210	241	16JAN	1644	0321	2140	14492	266
01JAN	1501	0148	2015	11417	224	17JAN	1557	0238	2059	13609	260
02JAN	1417	0104	1934	10898	195	18JAN	1510	0154	2018	12699	251
03JAN	1333	0019	1853	10942	159	19JAN	1425	0111	1937	11807	239
04JAN	1249	2334	1812	11517	132	20JAN	1340	0027	1856	11041	218
05JAN	1207	2249	1731	12334	116	21JAN	1256	2343	1815	10663	183
06JAN	1124	2203	1650	13222	105	22JAN	1212	2258	1734	10946	145
07JAN	1042	2116	1609	14108	098	23JAN	1129	2213	1653	11672	122
08JAN	1008	2029	1528	14955	092	24JAN	1046	2128	1612	12552	109
09JAN	1040	1940	1447	15745	087	25JAN	1005	2042	1531	13459	100
10JAN	1113	1848	1406	16471	082	26JAN	0923	1955	1450	14344	094
11JAN	1142	1754	1325	17142	077	27JAN	0847	1906	1409	15179	088
11JAN	2149	0041	0041	18080*	288	28JAN	0932	1816	1328	15951	083
12JAN	0618	0648	0618	14207*	263	29JAN	1008	1724	1247	16658	079
12JAN	1218	1654	1244	17803	072	30JAN	1042	1627	1207	17315	074
12JAN	2027	0310	0024	17454	285	30JAN	2010	0041	2346	17831	290
13JAN	0349	0609	0349	17376*	293	31JAN	0450	0527	0450	14814*	268
13JAN	1258	1537	1258	18050*	068	31JAN	1114	1524	1126	17991	069
13JAN	1921	0528	2343	16793	281	31JAN	1854	0449	2305	17167	285
14JAN	1825	0446	2302	16089	276	01FEB	1220	1352	1220	17973*	066
15JAN	1733	0403	2221	15322	271	01FEB	1756	0408	2224	16497	280

Printouts are available from TS/1000 Sinclair/Timex Computer, using AMS-81 AMSAT program tape. Price is $15; order from AMSAT, P.O. Box 27, Washington, D.C. 90044.

If you are looking for where to listen or to participate in AMSAT information and news nets — in addition to those mentioned in the November issue on the satellite A/O-10 itself, you might refer to the chart shown with this column.

AMSAT information and news nets

Net	Day, UTC	Freq.	Notes
AMSAT Espanol	Sunday 1900	14.180	
AMSAT International	Sunday 1800	21.280	
AMSAT International	Sunday 1900	14.282	
AMSAT European 20M	Saturday 1000	14.280	
AMSAT UK 80M	Sunday	3.780	1015 Local Time Sunday
AMSAT Asia/Pacific	Sunday 1100	14.305	
AMSAT South Pacific	Saturday 2200	28.878	
AMSAT South Africa	Sunday 0900	14.280	
AMSAT South Africa	Sunday 0900	7.080	
SEASAT	Sunday 1300	7.280	
East Coast 75M	Wednesday	3.850	2100 Local Time Tuesday
Mid-American 75M	Wednesday	3.850	2100 Local Time Tuesday
West Coast 75M	Wednesday	3.850	2000 Local Time Tuesday
Australian AMSAT	Sunday 1000	3.680	
New Zealand V.U.S.	Wednesday 0800	3.850	
VHF Nets			
New York City 2M	Wednesday	144.400	2200 Local Time Tuesday
AMSAT Goddard	Wednesday	146.835	2100 Local Time Tuesday
Los Angeles 2M	Wednesday	144.144	2000 Local Time Tuesday
Los Angeles 2M	Daily	144.144	0730 Local Time Tuesday
AMSAT South Africa	Sunday 0900	145.650	
AMSAT UK 2M	Sunday	144.280	1930 Local Time Sunday

At the AMSAT annual general meeting, Dr. James French — of the World Space Foundation — addressed the AMSAT Board of Directors with a formal proposal of cooperation involving the Solar Sail Project.

Preliminary information regarding the proposal content indicates that the Foundation offered AMSAT a "panel" aboard their next spacecraft. The panel will be supplied with power and computer interface equipment.

Basically, they ask that AMSAT provide telemetry beacon(s), transponder(s) and associated antennas. They mentioned that if their funding is adequate, the Foundation may be in a position to reimburse AMSAT for a portion of the cost of such communication systems.

12 December 1986 will be the 25th anniversary of the launch of the first Amateur Radio satellite OSCAR-1. A couple of years ago I wrote to the Advisory Citizens Committee for Commemorative Postage Stamps, suggesting that a stamp or series of stamps be issued in commemoration of this anniversary. One of the suggestions I made was that a stamp be issued in each of the denominations from 1 cent to 10 cents with an image of OSCARs 1 to 10, respectively. A letter from you to the Citizens' Committee may help get the postal service interested.

Vic Reubhausen, W6WNK, has a program which prints out not only A/O-10 orbital data but also the listing of cities which are in view of the spacecraft for that orbit and at the time of interest, and updates the geographical data every 15 minutes of orbit time and position. These will be available from Jack Sommers, VA6VGS, at Henry Radio in Los Angeles, 2400 Bundy Dr., Los Angeles, CA 0024 for a donation of $15 to AMSAT. □

The NOTH Network

Louis Huber, W7UU

I have always felt that humor has a place in Amateur Radio. One of the first things I noticed when I got on the air (as a teenager in 1919, right after World War I), was that the most-used expression was di-di-di-dit di-dit, or "Hi!" — which, of course, signifies laughter.

Let us also note that Sec. 97.1 of the FCC rules and regulations encourages us to *communicate,* and humor certainly is an important element in communication — as the writings of Mark Twain, Art Hoppe, Art Buchwald and many other famous authors attest.

You will be happy to learn, therefore, that there is one network in Amateur Radio which makes humor its chief stock-in-trade. This network has been in operation for perhaps 10 years; it used to be listed regularly in the ARRL Net Directory — until the net member who had the responsibility of sending in the annual details got the notion that it would be funnier to leave it out. This situation might change, of course; at some future time he might think it funny to register again.

It should be set forth without delay, however, that the NOTH (Nitwits Over The Hill) Network is thought by many outsiders to be devoid of any merit whatsoever. There are some who, upon tuning to the NOTH frequency (approximately 3933 kHz), are promptly horrified. They instantly become non-members and have nothing further to do the NOTHs. It is thought by NOTH members that such persons just don't have a very well-developed sense of humor.

It is equally true, though, that the NOTHs themselves have varying notions of what humor really is. It is also true that some of them overwork various utterances which may have seemed funny at some remote time in the past, but which have grown extremely tiresome from constant repetition.

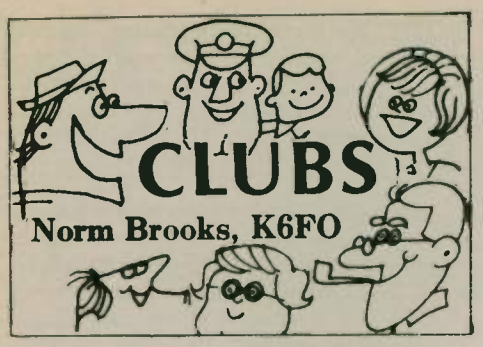
Despite these faults, it is generally understood by NOTH participants that you can needle the other fellow all you wish. This is something like the hazing that goes on in college fraternities. It's supposed to be in good humor and victims are expected to be stout fellows and bear up. If they don't, they are thought to be suffering from *dermatitis thinnitus* (thin skin), and in need of a skin graft. There may be several NOTH members in the sick bay (silent) at times; but usually they recover and are heard again.

Any newcomer daring to speak up, however, is immediately asked: "Have you heard our preamble?" If he has not, it is read to him (or her) at once — usually in chorus, several NOTH members taking part one after the other. The preamble is a spoof on the usual this-is-a-directed-net-do-not-break-or-relay-without-giving-your-call-letters type of operation.

Despite its air of apparent frivolity, the NOTH Network on occasion buckles down and handles written traffic, phone patches and other chores with as much aplomb and efficiency as any other net. The statement that "NOTH members aim to be helpful" is taken seriously.

Charitable activities are also a part of NOTH acitivity. When one NOTH member's home and belongings burned (a total loss), a purse of several hundred dollars *and a complete Amateur Radio station were supplied.* Another time, upon the death of a NOTH member, his widow was presented a check for $500 from contributions in varying amounts from scores of members and listeners.

(*please turn to page 32*)



Dues are due

Kelly Walker, WB0OCK, editor of *Grounded Grid*, Wichita ARC, Inc., Wichita, Kansas, recently ran this goodie to help get the dues checks rolling:

What happened to Check No. 2282?

Steve Bauer, KC0HF

Being a check can be fun and exciting, or dull and boring. Sometimes John, my owner, sends me to the bank to pay the rent. Once a year, he sends me to see Marion Ford, K0YWT. And you know, I think it's about time for me to go to Hesston.

The wind is blowing and snow is falling lightly as the sky darkens on a cold January evening. John — that's my owner — sits at his desk and opens my cover. As I watch him, he reaches for a felt-tip pen. I like it because it glides across my surface and feels so good. Carefully he fills in the date, "January 19, 1983." Next he confirms my suspicions; he writes in the Pay to the Order of ACARA. Boy, am I excited; I know I am going to see Marion now.

Next he fills in the amount $15 — not bad for a year's dues for three repeaters. Next comes the familiar signature. There — it's done. Soon I will slide into an envelope and in a day or so I will be in Hesston. I always look forward to seeing Marion; his house is always nice and warm, and his XYL is always cooking something that smells real good.

Membership surveys

We're always interested in club surveys of its members. Here's a very complete one, found in both the *SCAN* of St. Clair ARC Inc. of Bellville, Illinois, and *Harmonics* of Marissa ARC of Marissa, Illinois:

Check off your interests

- President's column
- Secretary's column
- Treasurer's column
- Officers' reports
- Notices of meetings
- Summary of board meetings
- License classes
- Membership lists
- New members
- Biographies
- Silent Keys
- Repeaters
- Auto-Patch — billing/use
- ATV Column
- Facsimile Column
- Communications for events
- Fox hunts
- Emergency tests
- DX — various facts
- Laws — antenna, TVI, etc.
- New call signs
- FCC petitions
- Net operations
- Procedure hints
- Net and activity reports
- FCC news
- TVI complaints/solutions
- Engraving pencil uses
- ARRL reports
- Renewal procedures
- Around the clubs
- Net control rosters
- Third-party traffic
- Radiation hazards
- Correct wiring for shack
- Get-together parties
- Problems-quizzes
- Movies of Amateur Radio — ARRL and local
- Computer articles
- Telephone-calling "trees" for alerting members
- ARRL official bulletins
- Assistance to the public
- Want Ads
- YL Column
- News of local stores
- Club equipment — jackets, QSLs, certificates, test equipment
- Scholarships
- Auction notices
- Hints on copying traffic
- Examinations — dates, places
- SCM reports
- Foreign amateur news
- Reciprocal privileges
- Book reviews
- Awards nights
- List of prefixes
- Burglar alarms — insurance
- Identification of equipment
- ARRL books to libraries
- Donations to Westlink, etc.
- Pictures of shacks
- Repeater maps
- Westlink reports
- W5YI Report
- ARRL Letter
- Stolen rigs
- Sun spot propagations
- Dues notices
- Outstanding DX reports
- Flood emergencies
- List and location of emergency power units and stations
- Technical items
- Cartoons
- Reports on trips taken
- QSO parties
- Letters from former members
- Program reports
- Door prize winners
- Reports on publicity in local newspapers
- Amateur uses for computer
- EC reports
- Nominations and elections
- Poems
- Inter-club meetings
- Show-and-tell sessions
- Science Reports
- Product reviews
- Hamfest announcements
- Proposed constitution changes.
- COMMENTS and SUGGESTIONS

Meet the members

Harmonics, of the Marissa ARC, Marissa, Illinois, runs a column 'Meet the Members.' For input, they use this questionnaire:

Meet the Members Questionnaire

- Name
- Address
- City and state
- Family's names
- Hobbies
- Job
- First year licensed
- When or if upgraded
- Bands worked regularly
- Favorite modes
- Radio equipment, antennas bought, homebrew
- Where born and raised
- Where else have you lived?

VISIT YOUR LOCAL RADIO CLUB.

ALASKA

Borealis Amateur Radio Club
Mission Road
P.O. Box O
North Pole, AK 99705

ARIZONA

Tuscon Repeater Association
P.O. Box 40371, Tucson, AZ 85717-0371
2nd Sat/monthly — 7:30 p.m., Pima Co. Bldg.
Net Thurs 7:30 p.m. 146.22/82 (146.28/88 & 147.69/09)
(602) 747-8903 or 899-4776

CALIFORNIA

Antelope Valley Amateur Radio Club, K6OX
Lancaster School Board
44711 N. Cedar Ave., Lancaster, CA 93534
4th Wed/monthly-7:00 p.m.

The Amateur Radio Club of El Cajon, Inc.
Parkway Jr. High School
La Mesa, California
2nd Thursday/monthly — 7:30 p.m.

Conejo Valley Amateur Radio Club
Home Federal Savings and Loan
164 W. Hillcrest Drive
Thousand Oaks, CA
1st Thursday/monthly — 8:00 p.m.

East Bay Amateur Radio Club
P.O. Box 6017, Albany CA 94706
Salvation Army Bldg., 36th & Rheem,
Richmond (415) 525-6200
2nd Friday/monthly — 7:30 p.m.

Fresno Amateur Radio Club, Inc.
P.O. Box 783, Fresno, CA 93712
Meets: 2nd Friday/monthly - 8:00 p.m.
Wawoha Middle School; 4524 N.
Thorne; Fresno. W6TO/R 146.34/94

Gabilan Amateur Radio Club
Monterey Savings & Loan Public Room
Corner First & Westwood
Gilroy, CA 95020
2nd Thursday/monthly - 7:30 p.m.

Livermore Amateur Radio Klub
2441 Heatherlark Cr., Pleasanton, CA 94566
Meets: Valley Memorial Hospital
Multi-purpose room, Livermore, CA
2nd Saturday/monthly - 9:30 a.m.

MT. Wilson Repeater Association
P.O. Box 977
Yorba Linda, CA 92686
WA6KOS Repeater — input 146.40 output 147.435
Amateur Radio QST Net — Monday at 7:00 p.m.

North Hills Radio Club
P.O. Box 41635, Sacramento, CA 95841
Meets: Gethsemane Lutheran Church
4706 Arden Way, Carmichael, CA 95608
3rd Tuesday/monthly

Sacramento Amateur Radio Club, Inc.
Contact: Chet Almond, N6DRU, (916) 967-4295
Meets: MARS Building, Sacramento Army Depot
Troop gate, Florin-Perkins Road
2nd Wednesday/monthly - 7:30 p.m.

San Fernando Valley ARC (W6SD)
Red Cross Building
14717 Sherman Way
Van Nuys, CA 91704
3rd Friday/monthly - 7:30 p.m.

San Gabriel Valley ARC
Bowling Green Clubhouse
405 S. Santa Anita Avenue
Arcadia, CA 91006
1st Tuesday/monthly - 7:30 p.m.

S. Counties Amateur Teleprinter Society (SCATS)
2nd Sat/monthly — alternates in L.A. & Orange Counties.
60 WPM RTTY Net, Wed. 8 p.m. on 146.10/.70 W6IWO/RPT.
For info. call Jean Carter, KA6HJK, (714) 523-9519

Sierra Foothills ARC
PO Box 3262, Auburn, CA 95604
Office of Education Bldg.
360 Nevada St., Auburn CA 95603
2nd Friday/monthly — 1930

Simi Settlers ARC (SSARC)
PO Box 3035, Simi Valley, CA 93063
3rd Thursday/monthly - 7:30 p.m.
Bank of A. Levy (across Larwin Sq.)
K3HZP/R 147.165/.765 Simplex 147.48

Sonoma County Radio Amateurs, Inc.
Box 116, Santa Rosa, CA 95402
Hank Davis, W6DTV (707) 823-7885
County Office of Emergency Service
1st Wednesday/monthly - 7:30 p.m. rpter 146.13/73

South Bay Amateur Association
P.O. Box 91 • Fremont, CA 94536
Fremont School, 40230 Laiolo Rd
3rd Wednesday — 7:30 p.m.

Stanislaus Amateur Radio Assoc. (SARA)
P.O. Box 4601 Modesto, CA 95352
Stanislaus Co. Administration Bldg.
12th & H Streets • 3rd Thurs./monthly 7:30 p.m.
145.39 MHz WD6EJF

Stockton Amateur Radio Club
U. of Pacific, Rm. 122
Kensington & Mendocino Sts.
2nd Wednesday/monthly - 7:30 p.m.
Rptr. roll call: Wed. 8 p.m. - 147.165/765

West Coast Amateur Radio Club
Fun Meetings — No Business
Fountain Valley Recreation Center
Visitors welcome — call in 144.330 simplex
Call KA6RRR (714) 636-8661 for dates

Western Amateur Radio Assoc.
Cerritos Park East
166th St. and Carmenita Ave.
Cerritos, CA.
1st Tuesday/monthly 7:00 p.m. - 145.400

West Valley A.R.A. W6PIY
Meets: Los Gatos Red Cross Bldg.
18011 Los Gatos - Saratoga Rd.
Los Gatos, CA 95030
1st and 3rd Wednesdays/monthly

CONNECTICUT

Tri-City ARC, Inc.
P.O. Box 686, Groton, CT 06340
Meets: Groton Public Library
Rt. 117, Groton, CT
2nd Tuesday/monthly - 7:30 p.m.

FLORIDA

Fort Myers Amateur Radio Club, Inc. W4LX
Jeff Beals, WB2OUK, President, (813) 334-4004
Meets 1st Wednesday/monthly-7:30 p.m.
First Federal Savings and Loan of Ft. Myers
121 Pondella Rd., North Fort Myers, FL

Platinum Coast Amateur Radio Society, Inc.
American Red Cross Building
1150 S. Hickory • Melbourne, FL 32901
Dan Yelverton WA4RGK President
Call-in 25/85 Rptr. • Meets 2nd Mon/monthly 7:30 p.m.

HAWAII

Big Island Amateur Radio Club
Helco Auditorium
1200 Kilauea Avenue, Hilo
Call-in 146.28/88
2nd Tuesday/monthly - 7:30 p.m.

ILLINOIS

Bolingbrook Amateur Radio Society
Fountaindale Library
300 W. Briarcliff Rd., Bolingbrook
(312) 739-0045 / call in 147.93/33
3rd Monday/monthly - 7:00 p.m.

Chicago Suburban Radio Association (CSRA)
Clyde Federal Savings & Loan Assn.
7222 West Cermak Road
North Rivrside, IL 60546
2nd Wednesday/monthly - 8:00 p.m.

For information on how to get your club listed in this column, plus receive many other benefits, write to Dave Tykol, WA6RVZ, Club Liaison, Worldradio, 2120-28th Street, Sacramento, CA 95818.

Six Meter Club of Chicago, Inc. - K9ONA
Land of Lincoln Savings & Loan
9655 W. Cermak Rd.
Berwyn, IL 60402
2nd Friday/monthly 8:00 p.m. Rptr. 146.37/97

INDIANA

Allen Co. Amateur Radio Tech'l Society, Inc.
PO Box 10342, Ft. Wayne, IN 46851
Allen-Wells Chapter House• Amer. Red Cross
1212 E. California Rd., Ft. Wayne, IN 46825
3rd Tuesday/monthly - 7:30 p.m.

Fort Wayne Radio Club
Ken Koczor, K9TUS
PO Box 15127, Fort Wayne, IN 46885
The Salem Church
3rd Friday/monthly - 7:30 p.m.

Indianapolis Repeater Assoc.
4th Monday/odd numbered months
Carson Manufacturing
5154 N. Rural St., Indianapolis
146.10/70 147.12/72

Northeastern Indiana ARC
John E. Zumbaugh, WD9CVI
507 E. Quincy St., Garrett, IN 46738
Daily 6 p.m. net on 147.96/.36
2nd Tuesday/monthly - 7:30 p.m.

IOWA

Muscatine Amateur Radio Club
Info: Jere Yanek, KA0KPO (319) 264-5490,
Meets: Basement Meet. Rm., Public Safety Bldg.
Muscatine, IA
1st Monday/monthly - 7:30 p.m.

RSCB (Radio Society of Council Bluffs)
Richard Swig, WA0ZQG, Secretary
104A Jennings Road
Council Bluffs, IA 51501
2nd Tuesday/monthly - 7:30 p.m.

MARYLAND

Frederick Amateur Radio Club
Frederic Electronics
Orville C. Bowersox, N3AGM
(301) 662-4550
2nd Tuesday/monthly — 2000

MICHIGAN

The Metropolitan A.R.C.
Harper Woods City Hall
I-94 & Eastwood (Between Vernier & Moross)
Repeater - 448.55T./443.55R.
1st Sunday/monthly - 2:00 p.m.

MASSACHUSETTS

Q.R.A. (Quannapowitt Radio Assoc.)
Masonic Hall — Salem Street
Wakefield, MA 01880
2nd Friday/monthly Sept-May 8:00 p.m.

MISSOURI

Heart of America Radio Club
3521 Broadway
Kansas City, MO 64111
3rd Tuesday/monthly

NEW HAMPSHIRE

Great Bay Radio Assoc.
Dover District Court, Dover.
(603) 332-8667/332-8015
WB1CAG/Talk-in 147.57
2nd Sunday/monthly — 7:00 p.m.

NEW JERSEY

Central New Jersey Chapter No 138, QCWA
Net: Ea Tue. evening-10:00 p.m. 147.645/147.045 MHz
Mtgs: Quarterly; Membership or more info:
Bob McKinley, W2OMR, Sec., 89 Stratford Rd.,
Tinton Falls, N.J. 07724 (201) 542-2113

Gloucester County ARC, W2MMD
PO Box 370, Pitman, NJ 08071
VFW Post #2117, Woodbury, NJ
1st Wednesday/monthly - 8:00 p.m.

NEW YORK

Amateur Radio Assoc. of the Tonawandas
City Hall, Community Room
200 Niagara Street
City of Tonawanda, NY 14150
3rd Tuesday/monthly - 8:00 p.m.

Hall of Science Amateur Radio Club, Inc.
PO Box 131, Jamaica, NY 11415
Queens County Dental Society Bldg.
86-90 188th St., Jamaica, NY
2nd Tuesday/monthly - 7:30 p.m.

Long Island Mobile Amateur Radio Club (LIMARC)
146.25/85, 147.975/375, 223.22/.224 .82, 444.125/449.125
Membership: Tom Koutsis, WB2IQT, 1341 Harry Ln.,
No. Merrick, NY 11566. Net Mon. 8:30 p.m. 146.25/85
Meets 1st Tues/8 p.m., H.B. Thompson, JHS, Syosset

Staten Island Amateur Radio Assn. (SIARA)
P.O. Box 495
Staten Island, New York 10314
Third Friday/monthly — 8:00 p.m.
Rm. B-127, College of S.I. — Sunnyside

Suffolk County Radio Club
Meets 1st Tues. monthly, 8 p.m
Bohemia Recreation Center
Smithtown Ave., Bohemia, Long Island
More info! Dave Potter, W2GZD, (516) 472-2394

Westchester Emergency Communications Assoc.
Little Theater — County Center
White Plains, N.Y.
Talk-in WB2ZII/R 147.66/06
2nd Monday - 8 p.m.

OHIO

Ashtabula County ARC
Ken Stenback, AI8S (964-7316)
County Justice Center
Jefferson, OH
3rd Tuesday/monthly-7:30 p.m.

Findlay Radio Club
1333 W. Sandusky St./Box 587
Findlay, OH 45840
Repeater 147.75/15
1st and 3rd Thursday/monthly - 7:30 p.m.

NOARS-Northern Ohio Amateur Radio Society
P.O. Box 354, Lorain, OH 44052-3rd Mon. 7:30 p.m.
K8KRG — Home of the WW II Submarine USS COD
WB8JBM — Noars Contest Station — K8KRG/Repeaters: —
146.10/70; 144.55/145.15; 449.8/444.8; 223.10/224.70

Xenia Weather Amateur Radio Net (XWARN)
2nd and 4th Monday — 7:30 p.m.
Xenia PD, City Bldg.
call in/147.165-147.765
Xenia, Ohio

OREGON

Clatskanie Amateur Radio Club
Route 2, Box 553
Clatskanie, OR 97016
Clatskanie Grade School Library
2nd Tuesday/monthly - 7:00 p.m.

Oregon Tualatin Valley ARC
Beaverton Elks Lodge
3500 SW 104th Ave.
Beaverton, Oregon
2nd Wednesday/monthly - 7:00 p.m.

VIRGINIA

Southern Peninsula Amateur Radio Klub (SPARK)
Repeater 146.13/146.73 — WR4ALW
VEPCO Bldg. (Penbroke Av. & G St.)
Hampton, VA
1st and 3rd Wednesday/monthly - 7:30 p.m.

WEST VIRGINIA

Jackson County Amateur Radio Club, Inc.
Bob Morris, WA8CTO, Sec.-Treas.
308 Edgewood Cir., Ripley, WV 25271
First National Bank of Ripley, WV
1st Thursday/monthly - 7:30 p.m.

WISCONSIN

Racine Megacycle Club
Red Cross Building
4521 Taylor Avenue
Racine, WI 53405
2nd Monday/monthly - 7:30 p.m.

What would you like
to write about yourself?

How did you get started
in Amateur Radio?

If you run out of room, attach a separate sheet.
Thank you!

Club shortcomings

From *Balanced Modulator,* North Florida Amateur Radio Society, Jacksonville, Florida:

Editorial comments: shortcomings of the Amateur Radio club

Recently, I visited a club in the Northern Florida section, where a survey had been made of the membership. While the comments received (in written form) apply to that club, it is my opinion that the attitudes expressed are not confined to that group. To some degree, these could apply to almost any medium to large-sized ham club. Results of the survey were printed in the club newsletter, and the most revealing and interesting are summarized here.

Question 3: *If you attend six or fewer monthly meetings each year, can you add the reason you do not attend more?* Responses: Can't drive at night . . . don't like to leave wife alone . . . out of town . . . only joined to use autopatch and repeater . . . lost interest . . . too far to travel . . . not interested and feel out of place . . . job commitments . . . other interests . . . TV more interesting . . . too much bickering . . . attend only when I like the program . . . allergic to tobacco smoke . . . school . . . just plain forget . . . out of town frequently . . . medical . . . time-consuming and boring.

Question 4: *There seems to be a problem with getting officers each year. Is there a reason that you know of?* Responses: Apathy . . . don't want responsibilities . . . members retired from life . . . lazy . . . outside interests . . . board failed to set up service (requirements) expected from members . . . too much bickering . . . pressure by some club factions to professionalize Radio . . . we need to deemphasize politics and censure . . . morale . . . previous members downgrade club . . . some members don't feel like they are part of the clique . . . inertia . . . physical difficulties . . . too many organizations competing for members . . . thankless task . . . club records atrocious . . . too much friction . . . common problem of all clubs . . . need more activities expressing fellowship and average technical ability.

Question 6: *The club seems to be unsuccessful in getting volunteers for special events such as Field Day, races, etc. What do you think is the reason?* Responses: Laziness . . . retired people . . . people not interested . . . outside activities . . . dates conflict with other plans . . . same as any other organization . . . lack of equipment . . . too much bickering . . . heavy supervisional attitude . . . who wants to volunteer when they are going to get chewed out for some minor breach of unfamiliar procedure? . . . many modern hams not interested in anything more than casual ragchewing . . . members too old . . . lethargy . . . fear that a volunteer may not be accepted . . . nobody wants to work . . . no one agrees on circumstances . . . sometimes the word doesn't get around . . . need an active events chairman . . . needs planning — lack of it killed Field Day . . . no one willing to take charge . . . avoid responsibility . . . should set up service requirements for all members as a condition of membership . . . not enough spare time.

Question 8: *What do you propose as some of the special events you'd like to participate in?* Responses: mall . . . special event station . . . none of the above . . . not sure its necessary for ham club . . . emergency readiness communications backup at events . . . transmitter hunts . . . communication for races and parades . . . swapfest and technical forums . . . establish program on repeater . . . helping to set up a Novice station . . . talks to church and civic groups . . . things that can be done in the evening . . . set up a 2-meter data repeater . . . Field Day . . . refurbishing of club ham equipment.

In the newsletter, the president made comments on the results of the survey. He noted that 57 members responded which was about 40 percent of the club; 70 percent of the respondents said they attended six or fewer meetings each year. Less than one-third attend more.

In commenting on question 3, he said that most are valid comments for not attending meetings. But as for those who feel meetings are boring or otherwise unsatisfactory, we ask them to help in some manner to see that future meetings satisfy their requirements.

The president's comments on questions 4 and 6 (getting officers and volunteers) are valid in my opinion. He says, " Some comments seem to find fault with *other* members. Like that old political cartoon where each person in a ring points to the individual on the right as the one at fault. Any ham club must have participation and some activities to flourish.

Other questions dealt with the amount of use of the club repeater. Over 75 percent indicated they monitored the repeater at least part of the time.

My thanks to the president of this club for sharing the responses with us. While these are not drawn from Jax area hams, it is my guess that the results would be similar in most other parts of the state, although the degree and percentages might vary depending on the makeup of the local population. *—de Billy Williams, N4UF* □

Marin club reaches milestone

Bob Fajardo, WA6VOI

The Marin ARC (California) celebrated its 50th anniversary on 13 August 1983, with a special event station that operated from the group's clubhouse, on the old Hamilton Air Force Base in Novato. The station operated from 9:00 a.m. until 3:00 p.m. All stations who worked W6SG will receive a special MARC Golden Anniversary QSL card.

Mayor Hugh Turner, W6SCV, presented the club with a proclamation, recognizing the numerous occasions when the club had provided the city and county with emergency communications. The week of 7-13 August was also declared Amateur Radio Week by the mayor. □

Howdy Days results

The top 10 winners of the 1983 Howdy Days, sponsored by the Young Ladies' Radio League, were: Martha King, WD4NKP; Christa Elksnat, DJ1TE; Mary Crider, WA3HUP; Jeannine Cote VE1BWP; Charlotte Ertelt, K5AVX, Martha Silver, NY4H; Ruthanna Pearson, WB3CQN; Shirley Hooper, WD8MEV; VK4BSQ; and June Braun7 KM8E. VK4BSQ was the only YLRL non-member winner in the contest. □

"New gear is here"

As promised, Yaesu and ICOM have delivered us some new pieces of equipment that lend themselves perfectly for maritime mobile high frequency operation. Move over, Kenwood; you have some competition!

For those mariners looking for a massive transceiver with every possible built-in feature as standard, the new 30-plus memory high frequency ICOM IC-751 may be the rig for you. Yes, besides ham bands, it also has a general coverage receiver. That general coverage feature is also modifiable for emergency transmit on any frequency.

32-memory ICOM

The ICOM 751 is about the same size as the IC-740, but has plenty more goodies on the inside. Take, for instance, the main tuning knob. Not only does it allow for VFO operation, but it also doubles as a band selector knob and triples as a memory selector knob. With 32 memories, you need an easy way of getting to them fast!

There are plenty of filters, an FM module for 10 meters that is included as a standard option, the provisions for a talking readout, and just about any other gadget you may think of is included in this fine transceiver. The publishers of the ICOM Newsletter, International Radio, Inc., 364 Kilpatrick Ave., Port St. Lucie, FL 33452, give this radio some fine reviews. We do, too. Once you master all of the knobs, it's a fine rig to operate if you want every conceivable feature in one transceiver. It will sell for around $1,500, and will have some application aboard certain larger boats.

For most maritime mobile operation, many mariners may choose the new ICOM IC-745 that sells for under $900. This rig features 16 memories, full amateur band and general coverage frequency capabilities, dual VFO's, and all of the other fine features found in most high frequency transceivers. It's another unit that you might want to set side by side with the Kenwood 430S and compare the specifications. Although it is physically larger in size, this new ICOM might be just the answer if you need 16 memories, rather than eight memories with the 430S.

Yaesu has made a direct hit on the Kenwood 430. The new Yaesu FT-757GX is actually smaller than the Kenwood! For maritime mobile high frequency operation, this is an important consideration. The new Yaesu features eight memory channels, dual VFO's, the 10-meter FM module as standard equipment, massive heatsinks, and a general coverage receiver that will also transmit on any frequency in a maritime emergency.

Some additional features I like are the full break-in CW capability, the built-in FM module, and the 100 percent duty cycle specs. Take this rig off the boat and use it at home as a real workhorse transceiver.

The price? We see it selling for the same price as — even a bit lower than — the popular Kenwood 430S. Take a look at this fine rig for maritime mobile operation before you make any decision.

Why all the free publicity on these new rigs? It's mainly because I feel sorry for the hapless mariner who chooses the wrong type of radio for a particular operation, or ends up with a tube rig that doesn't work satisfactorily in a marine environment.

A couple of last notes on rigs. Both ICOM and Yaesu produce marine handheld transceivers that use the same accessories as their 2-meter counterparts. ICOM even goes so far as to offer a completely waterproof bag to put their hand-held transceiver in for marine use. You can take your rig swimming with you in this completely watertight container!

I saw some disappointed people at the recent ham convention. They wanted to work the new OSCAR-10 satellite with a new "dual-bander" rig they had purchased from a major equipment manufacturer. Just because a rig is billed as "dual-band" does not necessarily mean it will transmit simultaneously on one frequency, and receive on the other at the same time. Only Ten-Tec and Yaesu with their model FT-726R offer complete OSCAR-10 full duplex compatibility.

Look before you leap into satellite work with any new type of transceiver that shows up on the market. Many times, even the dealer who sells it does not realize its limitations for full duplex on the VHF and UHF bands.

More HF antenna tests

We just finished another boat with a complete HF antenna assembly aboard. A coaxial switch allowed us to immediately compare several different antenna systems for maximum worldwide range. Here's what we found:

Whips are good performers.

A long backstay, in the clear, with the Cubic tuner performed best on 90 percent of the DX signals, transmit and receive.

The next best performer was the long backstay and the automatic Maxcom antenna tuner. The well-grounded tuner did a fine job in launching the signal and was the second-best performer.

Our third-best performer was a simple and inexpensive inverted Vee antenna, cut to the band of desired operation. We found that the inverted Vee worked third-best when kept in the clear and away from other riggings. We saw the performance of the inverted Vee in a sailboat installation deteriorate as each leg of the Vee was placed in close proximity to grounded standing rigging. If you are going to use an inverted Vee or backstay, it must be kept "in the clear."

Our fourth good performers were tuned whip antennas on the stern, hooked into a well-grounded counterpoise system. We also found good results from 4- and 5-band mobile antennas that automatically load up regardless of which band you select (multiple loading coils on a single mast).

We found that the shorter the mobile whip, the worse the performance. A good long mobile whip seems to be an excellent performer. The multi-band "Spider" is a fine way to go.

Our conclusion is that a nice long antenna, such as a backstay or a long wire, in the clear, hooked into a tuner, is one of the best performers around. The long antenna system must have a suitable counterpoise to keep the entire system balanced. Shorter mobile antennas work fine, but not quite as well as longer stays. In case of dismasting, mobile antennas are the ultimate answer in calling for help. The "Spider" antenna worked just great in this application.

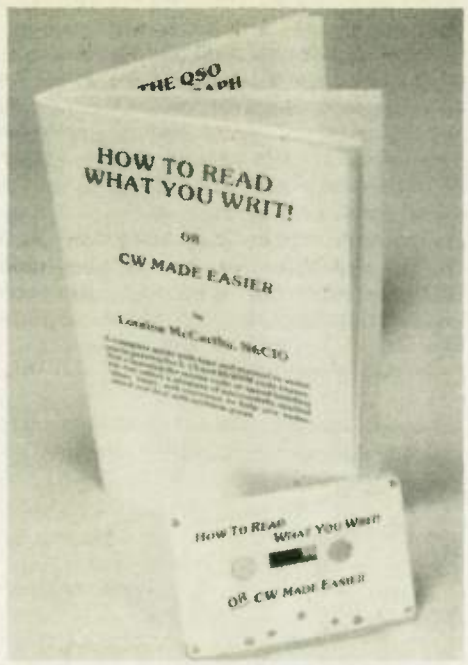
Sorry, girls

A few issues ago, I complimented the "boys" at ICOM for doing such a good job in introducing many new rigs ideal for maritime mobile operation. My mistake.

"But I've been one of the 'fellows' for years," comments Evelyn Garrison, Marketing Manager for ICOM America, Inc., Washington. She even points out my error in not indicating that ICOM has more women working for it than men. Check out this list of ICOM America workers out of the Bellevue, Washington office:

Lori Arseneau — Accounting Assistant II; Elizabeth Blatter — Secretary; Deb Davis-Smith — Promotional Development Coordinator; Colleen Deveraux, KA7QLL — Order Entry Supervisor; Evelyn Garrison, KA7LPK — Amateur Marketing Manager; Norma Golding — Order Entry Assistant; Kathy Greig — Office Manager - Dallas; Lucienne Grout — Administrative Assistant - Marine Marketing; Geri Hoppe — Clerical Supervisor; Laura Keating — Receptionist; Brenda McCandless — Accounting Assistant I; Deborah Martin — Receptionist - Dallas; Mona Mundhenk — Parts Clerk; Patsy Pawlowski — Comptroller; Monnett Ross, KA7NDM — Administrative Assistant - Service; and Laura Sundberg — Administrative Assistant - Amateur Marketing.

Here is another great contribution from a gal who makes upgrading your code skills a great deal easier. Her name is Loraine McCarthy, N6CIO. She's an Extra Class licensee and the Code Programs Manager for Radio School. She has just developed a new manual and tape entitled, "How to Read What You Writ!" or CW made easier. This is not a learning the Morse code course or speed-building kit, but rather a program of successfully applied hints, exercises and ideas that will help you pull together those hieroglyphics and successfully pass your FCC code test.



How to read your code practice course

You will learn how to set goals for yourself and how to read what you write for the exam. She gives some valuable aids and confidence-building techniques that will help you relax and do better on the day of the exam.

Hundreds of Technician Class operators have successfully passed the General Class code test, thanks to Loraine and her specialty code classes. Many have gone forward to pass the Extra Class exam, too. Now we have her secrets in a booklet as well as on tape — all for $14.95 plus $1 postage and handling.

Write to Loraine McCarthy, N6CIO, 315½ Ruby, Balboa Island, CA 92662, or give her a phone call at (714) 675-4415 and discuss your code learning problems with her.

More net comments

"The Caribbean Maritime Mobile Net is now on at 1130 UTC on a frequency of 7240 kHz," comments Bernie Mogal, J6LDZ. Bernie is quite active on this net as well as 14313 kHz, and many maritime mobile operators are familiar with the excellent way he operates and keeps track of fellow mariners. Bernie has also given us some valuable input and corrections on some of our maritime mobile listings, and Bernie, we thank you! You may wish to drop Bernie a note, because he has plenty of good maritime mobile information. Bernie Mogal, J6LDZ, P.O. Box 908, Castries, St. Lucia, CARIBBEAN ISLANDS.

The California-Hawaii net is also right on schedule serving mariners that make the crossing. Net controllers are Howard Downing, K6VDV, net control; George Clark, KH6JJP; Peter Machado, KH6ARM; and Glenn Fultz, KH6GKB. The net begins every day around 1630Z on 14.340 MHz, and is a public service net for everyone within its range — especially maritime mobile operators who travel from the West Coast to Hawaii and back.

The 8-year-old net has handled plenty of emergencies. The net has a solid contact via the phone lines with Long Beach Memorial Hospital in case of any medical emergencies at sea. They have handled everything from sinkings to shootings.

Ron Menet, N6AUB, handles Northern California check-ins also. Our congratulations go to Howard, George, Pete, Glenn and Ron, as well as all other stations that assist this excellent public service net for maritime mobile operation between California and Hawaii.

That's it for this month. We hope to hear from more of you about your maritime mobile operations. □

Firefighters Net hams have eyeball QSO

When Osamu Mizuno, JH2AKB, was on a conducted tour of California, instead of visiting Disneyland, he opted to spend the day with two local amateurs. Dan Fleming, KE6TM, and Harold Burba, N6AXQ — both retired firefighters — had first met Osa on the Firefighters Net, which meets on the air daily. The net has almost 300 firefighter/hams around the world.

Osa was picked up at his hotel and taken on a tour of the newest fire stations, Los Angeles' computerized dispatch center, and the fireboats at the harbor.

From there to N6AXQ's QTH in Torrance to see the ham shack and enjoy a typical American dinner of steak and potatoes. hi! hi! Osa was delivered back to his hotel that evening, a tired but happy firefighting ham from Nagoya, Japan. — *Harold Burba, N6AXQ* □

Dan Fleming, KE6TM, (left), and Harold Burba, N6AXQ (right), took Osamu Mizuno, JH2AKB, on a tour of Southern California recently. All three are firefighters.

WITH THE HANDI-HAMS

Maureen Pranghofer, KF0I

It was early that Saturday morning when I went to the home of Jon Nervair, WA0WPP — my one-to-one, to see his radio station. I was terribly excited. I had been studying some code and dabbing at rules, regs and theory, but didn't really know what a ham station was like or just what was involved. One thing I did know, because I had read it in the rules and regs, was that amateurs helped out in emergencies. I was eagerly looking forward to hearing storms, earthquakes, forest fires, floods and other kinds of emergencies being capably handled by ham operators.

When we got to John's shack, I soon realized that there really weren't quite that many emergencies and that this particular phase of Amateur Radio wasn't an everyday occurrence met by every amateur on the air. No matter . . . I was too excited to worry about it.

I heard stations from around the country, tried to copy some CW on 40 meters, and then sat back and listened with John to a German station on 15. It was all terrific, but in the 20 minutes or so since we had been in his shack exploring the bands, I was starting to become impatient. "When can we talk", I asked. "Well, we can have a QSO now, John said, "but one thing you've got to have to be a ham is patience, and you've got to be a good listener."

Since those early days, I've learned a lot about Amateur Radio. I know a bit about theory, can copy CW faster than in my Novice days, have worked 2 meters and mobile operation, and have tried to expand my knowledge. But of all the tips, advice and information I have gathered, the above information given me by my wise HANDI-HAM one-to-one is still the most practical.

During the recent Grenada emergency, Richard Eichhorn, HANDI-HAM Station Manager, and the rest of the staff had an opportunity to monitor the emergency frequency and get some excellent PR from local news media. We were shocked and horrified to find all the QRM and disturbance on the net frequency. When reporters and news folks asked repeatedly if we could talk to the Grenada station or why we couldn't just send out this piece of information or that, we just said "no". This is a net frequency and people can't just jump in and disrupt activities.

At that time, as well as others, I've felt proud to be a member of HANDI-HAMS, not only because of the camaraderie but because we have found handicapped folks, in general, to be particularly good operators. This excellence in conducting one's self on the air is not due to HANDI-HAMS' policing folks or anything like that. In fact, we have no control over what HANDI-HAM members do on the air, but it is due — in part, I think — to the special circumstances which surround a disabled person.

Unlike the able-bodied, the handicapped population has some special circumstances. For example, if a person has limited mobility — such as an individual in a wheelchair, he cannot always get what he needs without assistance from another individual. Having to wait until someone is available to provide personal needs, transportation or assistance with errands, makes a person become more patient. Someone with a vision problem becomes adept at listening well. These are distinct advantages in Amateur Radio. In fact, in some ways, the able-bodied amateur is at somewhat of a disadvantage. DX pile-ups and nets might be trying for the person who can readily move where he wants and get what he needs when he wants it, since he does not often need to wait for others. Maybe that explains some of the QRM and interrupting heard on the bands.

For your average-sighted person who can pick up any book or newspaper and read it without batting an eye, just listening to a media without the impact of visual stimulus must be rather tedious. This could be another explanation why some of those folks do not seem to be able to listen to instructions of net controls. They just can't keep their minds on things which are totally audible.

I might be exaggerating things a bit, but you get my point. In some situations, the handicapped folks have an advantage over everyone else, and the Courage HANDI-HAM System has demonstrated repeatedly that this is true in Amateur Radio. These advantages are not, of course, why handicapped folks become amateurs. They begin the hobby for all the reasons other folks enter the world of hamdom. □

STATION APPEARANCE

Edouard D. Cournoyer, W4UMO, of Atlanta, Georgia, wins the Station Appearance this month, with his neat, compact station. The equipment on both shelves can be completely enclosed inside of a bookcase with louvre doors.

On the bottom shelf sits a Yaesu transceiver 902-DM; to the left of that is a Yaesu Patch Speaker, with antenna control box on top of that. Antenna is a 3-element Hy-Gain beam.

On the second shelf is Dentron's Clipperton L Linear and RJ Miller Auto Tuner. On the right is a 2-meter radio with power supply (Yaesu).

On the left of the cabinet is Ed's RTTY HAL equipment, with keyboard, terminal unit and video. Next to that (not seen in picture) is an Atari computer with disc drive — "very handy for logging in stations for permanent record," says Ed.

W4UMO is a retired Army veteran from four wars: World War II, Korea, The Congo and Vietnam. He's 67 years old and has written several articles for QST, one of which was "The Congo Story," published in December 1960. He's also written for a few other technical bulletins.

Licensed since 1950, this Extra Class ham has used the handle of "Frenchy", and can be found mostly on 20 meters RTTY. His XYL, Alleen, is also an amateur — WD4NTM; she's retired from civil service.

Ed will be receiving a free year's extension of his subscription. □

This picture of Edouard Cournoyer, W4UMO's station proves that you don't have to own a huge station to win *Worldradio*'s Station Appearance. The equipment can be enclosed inside of a bookcase.

NOTH Network

(continued from page 27)

Another feature of the NOTH Network is its unofficial "net manager," Smitty (George C. Schmidt, W7PPD of Portland, Oregon). Without Smitty, the NOTH operation slows down and becomes a roundtable of ordinary ham conversation. When he arrives, it is sparked up into its distinguishing character of combined wit, nonsense, contorted humor, sometimes seriousness and (at times) brawlish behavior.

Words on paper can't fully describe the NOTH Network. You have to listen to it awhile to find out what it is (and even then you may be in doubt). If you're within range, try it — anywhere in Washington, Oregon, Idaho, British Columbia and (sometimes) California, Nevada, Montana and Utah. It begins about 6:30 a.m. Pacific time, at about 3933 kHz.

See you there! □

Esther Given, W6BDE

The Quarter Century Wireless Association, Inc. (QCWA) was brought into being in November 1947. Six "old-timers" who had been licensed as Amateur Radio operators by or before 1922 were holding a round table on 10 meters, at which it was decided there should be a get-together of their ilk.

Three weeks later, 05 December 1947, 34 OM's assembled in New York City to hold the first official QCWA meeting. All of them were W2's, including the original six "knights of the round table." They decided to hold charter membership open for a short period during which they enlisted another 20. Forty-six charter members were from 2/land, but word was getting out — there were eight charter members from other U.S. call areas. Today that membership figure has risen from 54 to 17,300, of which some 10,000 are currently active.

It was established at the very first meeting that eyeball QSOs were an important happening. The positive vibes resulting from reunions where smiles and handshakes were coupled with a familiar fist or voice created a gratifying effect. Thus were the QCWA chapters born. QCWA members were, and still are, encouraged to establish regional units giving members the opportunities of knowing each other personally, sharing knowledge and experiences, and reminiscing over the amazing progress of electronic communications over the years.

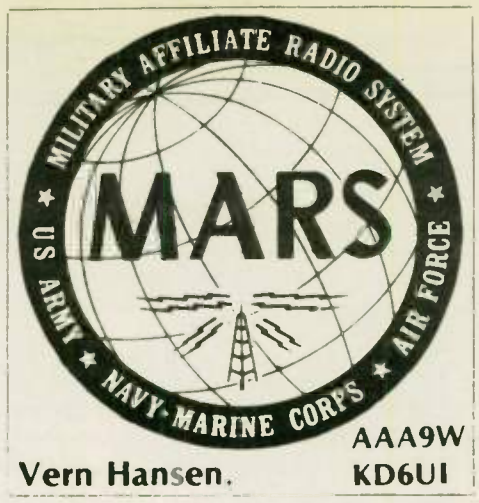
Today QCWA has 146 chapters — 138 in the United States, four in Canada and four overseas. In 1979, the YL's formed the first chapter with international scope. Although most members are YL's, there is no sex discrimination, and OM's may avail themselves of affiliation with the Quarter Century Wireless Women Chapter.

QCWA's founders established noble purposes for the organization, fostering the promotion of friendship and cooperation among Amateur Radio operators who were licensed a quarter of a century ago and still hold valid licenses. The organization functions exclusively for charitable, educational and scientific purposes. It serves to promote interest in Amateur Radio communications and the advancement of the field of electronics. Represented within the membership is a tremendous reservoir of knowledge and experience, which serves to benefit all Amateur Radio operators and promote public welfare. QCWA works to preserve the history and traditions of early Amateur Radio and to honor the accomplishments of its pioneers. A scholarship program makes annual awards to young amateurs.

QCWA membership is a milestone looked forward to and anticipated by amateurs all over the world, and when this goal is achieved, there are innumerable fringe benefits. Various certificates are awarded for operating achievements and a series of golden awards commencing with the 50th year as a licensed amateur and continuing in five-year increments are available to members.

Don't assume that a QCWA gathering is all senior citizens. Remember those children and teenagers back in the late '50s who were destined to become the engineers and whiz kids of the upcoming electronics age? Today, not yet middle-aged according to current longevity standards, these "youngsters" are proudly becoming alumni of their hobby, adding their input and expertise to QCWA.

Further information and/or application forms are available from QCWA Headquarters, 1406 Cooper Dr., Irving, TX 75061. □



Vern Hansen. AAA9W KD6UI

The following article outlines the accomplishments of Donald W. Hodous, WD8ILX/AAT5EX, of Strongsville, Ohio. This article was prepared and submitted by another Ohio Army MARS member.

Donald W. Hodous, AAT5EX/WD8ILX, of Strongsville, Ohio is a member of Ohio Army MARS. In less than three years, Don has enhanced his communication skills to such a degree that his MARS call sign has become known across the United States and throughout the world wherever U.S. military and civilian personnel are stationed.

It was evident to his peers that Don was determined to learn the military communication procedures when he participated in a directed net for the first time. This determination was coupled with his commitment and genuine interest to support the MARS mission. Several months after being welcomed into the Military Affiliate Radio System (MARS), AAT5EX was assigned duties as Net Control Station (NCS) of Ohio nets and subsequently became NCS and relay station for Central Area nets.

It is not generally known among his on-the-air associates that Don has been afflicted with polio since 1940. However, this considered handicap has not been a deterrent to his communication activities. With undaunted courage and enthusiasm, he regularly spends the major part of each day (10-12 hours) training for emergency situations while relaying welfare and morale messages for military personnel and their families. He consistently processes over 1,000 messages each month. During a 10-month period, he was credited with over 4,000 hours of participation. These statistics far exceed the minimum requirements sustaining membership in MARS.

Don has earned a variety of awards, certificates and congratulations for his efforts. Most recently, a major television station in Cleveland, Ohio sent a camera crew and a reporter to Don's home to prepare a TV "salute" honoring him for his contributions. The TV "salute" was telecast several times during a one-week period, at which time Don had the opportunity to say, "I've had occasions of people arriving at their destination in Germany, even in the United States for basic training . . . the mothers have cried just to know that their son or daughter has arrived at their location safely." □

Indiana Army MARS

The Indiana Army MARS is part of the Central Area Army MARS, which is comprised of 15 states in the central area of the United States. In Indiana, there are approximately 80 members.

The purpose of the Army MARS program is to provide an atmosphere for amateur participation and training that will insure there is a "system in being" in the event of an emergency. This may be an emergency of a local nature such as a snow emergency, tornado touchdown, or similar actions, or it may be a national emergency. In any event, the members of Indiana MARS are trained and ready to serve.

The training we receive from our daily activities insures that we are ready to interface with the military if called on. The net discipline and our knowledge of each member's capabilities and limitations enables us to respond quickly to requests for assistance in local emergencies.

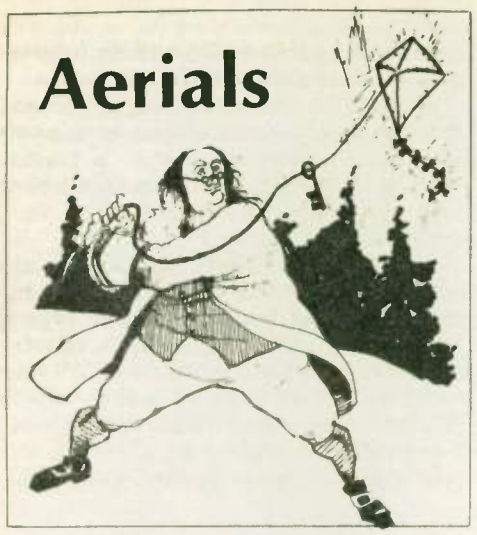
During non-emergency times we operate on nets to handle traffic from servicemen to their families and friends, and from their families and friends back to them, worldwide. In each state, there is at least one station that can handle phone patch traffic from the servicemen back home to their families.

Each MARS member is required to participate in our nets for a total of 12 hours in each three-month period. This participation can be "on the air" plus time spent on other projects and areas. On-the-air participation in Indiana includes three repeaters — one at Fort Wayne, one in Indianapolis and one in Francisville. It must include some time on the higher frequency nets as well.

We feel we are serving a useful purpose and are part of Amateur Radio public service. Anyone interested in knowing more about the program or joining may contact the Indiana State Director, Willard L. Davis, AAA5IN, 616 Olympia Rd., Valparaiso, IN 46383.

— Indianapolis Repeater Assn., IN □

Aerials



Lil Paddle

I'm back, too! I really thank the many of you who wrote in to **Worldradio** asking that even if Kurt stormed off in a huff, could Lil stay on.

I, too, did read the book that started the whole incident. Sometimes I peek at the end to see how it comes out. On the very last page in talking about Amateur Radio that book said, "Its roots are deeply imbedded in C.W. as that was the only means for the original amateur radio operators to communicate." That is simply just not true!

The original amateurs used SPARK! My father would let me watch. It made the air smell funny. There was no CW until tubes came along. CW does not mean Morse code; it means continuous wave, or one of constant amplitude. The spark wave tailed off. That is why radio operators were called "Sparks", because they made a great big spark. One could build a transmitter with the spark coil from an automobile.

Then going a few more pages back into the book, in a discussion of the Class C amplifier I saw, "It is the backbone of most solid-state RF amplifiers in use today." For FM, yes, but (which was never explained) for SSB, another great big NO! Wrong again.

After starting on page 168 and going back to 154, I decided the rest must be more of the same and quit reading. Kurt, as you know, had to torment himself by reading the whole thing.

Then we were quite surprised that we didn't hear from the Newington News or . . . what's his name, Jug McGraw? when Kurt demolished the statements in their article.

We think someone knows who we are, because on Trick or Treat night when I answered the doorbell, there was a 6-footer, weighing about 200 lbs., wearing a three-piece grey pin-stripe suit and a dime-store Halloween mask. All he said was, "I'm 50 ohms disguised." and he quickly ran off, laughing. I do hope he will be a good sport and not tell anyone else. I must say that he does have a good sense of humour.

Kurt and I have been married a year now and I'll tell you, life with him is quite bizarre. To see those skinny legs sticking out of those baggy O.D. shorts when he does the clean and jerk is really something. Yes, Olive Drab underwear. So old and thin.

I've tried to bring some civility to his life, but it hasn't been easy. I did buy him some decent linen. But he made me take the ones with the red ants on them back to the store. He is so square he calls Lawrence Welk music "be-bop". When I listen to my Ted Heath records, I've got to do it with headphones plugged into the stereo.

But on to the transducers. There are those who say they won't use the antenna tuner because they "don't want to lose any of their power in the tuner."

Should you possibly be one of those chaps, or know someone who is, ponder this or ask them: Just what does absorb the power in the tuner — which part? Remember, only resistances consume power.

Now that we're back, remember, if you have any questions, send them in and you'll have an answer. Also, if you have a bit of information you'd like to share, this is the place.

As so many amateurs are using vertical antennas, the following by Jim Lisson, WA2CEP, should prove of great interest.

The vertical antenna feed

Let us take a look at a hypothetical short vertical antenna for one of the low frequency HF bands. This imaginary antenna will have a complex feedpoint impedance of 20-J300 ohms. This means that it will "look like" a 20 ohm resistor in series with 300 ohms of XC, from its lower end to ground. The value of this complex impedance will be determined primarily by the electrical length and diameter of the antenna.

We could put 300 ohms of XL in series, with this antenna at its base, and then — on paper — it would "look like" a 20 ohm resistive load. Actually, let the loading coil have a loss resistance of 5 ohms, and because I only have two 8 ft. ground rods and two radials for a "ground system," let the ground system loss be 20 ohms.

If we now measure the feedpoint impedance we will "see": 300 ohms of XC (the antenna), 20 ohms of resistance (the antenna), 300 ohms of XL (the coil), 5 ohms of resistance (the coil) and 20 ohms of resistance (the ground system), all in series. This antenna, with its ground system, will now "look like" a 45 ohm resistive load. We can now feed this antenna with 50 ohm coax and have a good SWR. With a "good SWR" the antenna *must* be working? *If you think so, read on!*

If we simplify things and just look at the resistance ratio, we can see that with 20 ohms of radiation resistance and some 25 ohms of loss resistance, of the power that arrives at the antenna feedpoint, just *under* half will be radiated and just *over* half will heat up the loading coil and "warm the worms" under the antenna.

The first thing we will want to do is put a good "ground system" under this antenna. Because all of the current — from all parts of the ground system — must converge at the base of the antenna, the more wire we lay *near* the antenna the better. By this I mean that if we have 100 feet of wire, then ten 10 ft. radials are better than two 50 ft. radials. All the books say "more and longer". The emphasis should be placed on the word "more".

Remember that the current *density* decreases as we move away from the antenna base, and the rule of diminishing returns comes into play at about the point that the radial length equals the height of the antenna.

If we have a 40 ft. vertical antenna for 80 meters, we could use a few 120 ft. radials. It would be better, however, to use twice as many 60 ft. radials, or even three times as many 40 ft. radials. Don't confuse this ground-mounted antenna with an *elevated vertical.* With a quarter-wave 10-meter vertical antenna up on the roof, we may use only four quarter-wave radials, or perhaps make them a bit longer and slope them downward. This antenna will now start operating like a vertical, center-fed, half-wave dipole and the "ground system" requirements have changed.

About those "ground rods" that I used. Even if they enter into "moist" earth a few *feet* below the surface, they won't be of much help because most of the RF currents returning to the base of the antenna flow within the first few *inches* of the surface. Other than for lightning protection, ground rods are of miniscule help and the antenna, as I have described it, is not even grounded anyway!

Now that we have put in a good "ground system," let us say that the ground loss changed from 20 ohms down to 5 ohms. The new ground under the antenna *will* change the complex impedance of the vertical radiator, but let us say it is the same. The loading coil still cancels out the XC of the antenna, and the total loss is now 10 ohms — 5 ohms for the coil and 5 ohms for the ground system.

With 20 ohms for the radiation resistance, the antenna will now look like a 30 ohm resistive load. The SWR will now not be as "good" as it was, but the antenna will work much better. Of the power reaching the antenna feedpoint, some two-thirds will be radiated and some one-third or so will heat up the coil and keep the "worms warm" on those cold winter nights.

From this we can now see that the SWR does *not* tell us how well the *antenna* works. In this case, the antenna got better and the SWR got worse!

I still have the ground rods out there in my yard at the base of my antenna, so let's make some use of them. What we will do is decrease the XL of the loading coil so that the complex impedance looking into the antenna "looks like" 30 ohms of resistance in series with some net value of XC. If we chose the proper value

for this series XC, then when we convert this series RX equivalent circuit into its parallel equivalent, it will look like a 50 ohm resistor in parallel with some new value of XC.

If we now put a second XL (coil) between the bottom of the loading coil and the system ground and make its XL equal to the new parallel XC, it will be in parallel with that XC and will "tune it out". The 50 ohm feedline will be connected across this new second coil and this feedline will "see" the 50 ohm load of the antenna plus its matching network.

Note that these two coils are in series, and in most cases, they are combined into one coil. Also note that the vertical antenna now has a "DC ground."

This same matching system is shown in most antenna books. They will have us put some coil from the bottom of the antenna to "ground" and tap the coil at some point for the feedline. Then we will adjust the number of turns of the coil and the point of the tap for "best SWR". With a good ground, all of this works just fine, but with no ground or a poor ground, all you will have for all of your effort is a "good SWR" and "contented worms". — *The Carrier, Mt. Diablo ARC, CA*

I end with this tip for the newcomers. When trying to find the right setting for your transmatch do this: set the Transmitter Matching capacitor halfway between all the way open and all the way closed. Do the same with the Antenna Matching capacitor. Then rotate the Inductance switch through the various click stops. What you are looking for is the highest level of background noise. When you find the maximum level, start fishing around with the two capacitors to find the lowest reverse reading along with the highest forward reading on the SWR bridge or power meter.

I write this a week before Sweepstakes. Kurt says he is going to win again. I tell him he is too old for that. He shows me some faded yellowing certificate to show he once did win his section. I think he saw Rocky too many times.

(Lil Paddle goes by her silly name [which really has logic behind it] to avoid autograph seekers, the IRS, love letters from former Lancaster pilots and crank letters from reprobates who resent the fact that a woman has an Extra Class license.) □

Ham's lucky day

While driving down the highway operating his 2-meter rig, Dan Large, N8ETV, was pulled over by the Highway Patrol and cited for speeding. It seems that Dan had his cruise control set at 55 mph as he operated 147.24, but was clocked by radar at 68 mph.

After receiving the ticket he explained his unusual circumstances to the trooper. Both parties then agreed to duplicate the incident, this time with the officer traveling next to him. After setting his cruise control at 55 mph, the radar clocked Dan accurately. He then signaled the officer and began transmitting, this time the radar readout was at 68 mph.

Upon conclusion of the test, the officer voided the ticket and made out a special report.

—*(from the Columbus ARA Carascope via ARRL RCN)* □

Please send NEWS and PICTURES to **Worldradio**

Homebrewing is alive and well in England and continental Europe — and should be in the United States, too.

That was the message from three active QRPers at the QRP Forum of the ARRL National Convention last October in Houston; George Dobbs, G3RJV, founder and secretary of the G-QRP Club; Chris Page, G4BUE, a member of the QRP ARCI board; and George Burt, GM3OXX, an active low-power operator, designer and home builder.

Two well-known U.S. amateurs — Adrian Weiss, W0RSP, and Wes Hayward, W7ZOI — also spoke to the standing-room-only crowd.

Dobbs told the gathering his organization experienced a sudden jump of more than 600 members in a few months' time, following articles about it in British Amateur Radio publications and an information booth at a major radio convention.

Much of the interest in G-QRP, he said, was due to the club's emphasis on easily constructed, low-cost gear — a popular item in a country where sophisticated, commercially built equipment is at a premium.

"Most letters I get from hams in the United Kingdom ask for advice on equipment they can build, while the typical inquiry from the ham in your country recites a list of (commercially made) gear he owns, and asks me what else there is for him to buy to go QRP," Dobbs told his American audience.

British amateurs, he continued, have

learned the thrill of designing and/or building their own transmitters, receivers, transceivers, antenna tuners and the like, and then racking up many contacts with them.

One such is George Burt, a Scotsman whose display of homebrewed equipment dazzled most onlookers with its laboratory-quality layout and construction. He operates with a maximum of 1 watt output on all bands, and primarily with his own design of gear.

Burt urged his listeners not to fear building their own equipment, starting with the printed-circuit board and working upward from there. He said he follows a simple process of laying out a schematic on a sheet of graph paper with tenth-of-an-inch spacing on the grids.

From that he draws in the location of various components, using vertical mounting of resistors and similar components in a space-saving move. A vertically mounted resistor, he said, requires only a tenth-of-an-inch square, for instance.

After all parts are located, the pattern is fitted to the underside of the PC board, holes marked and drilled, and the connections between components drawn with etch-resistant pen, after which the board is dropped in the etchant and finished.

QRP Forum speakers, from left to right, were Rev. George Dobbs, G3RJV; George Burt, GM3OXX; Chris Page, G4BUE; and Wes Hayward, W7ZOI. ***(Photo by Ed Popp, K5BOT)***

Adrian Weiss, W0RSP (right), displays his Milliwatt DXCC Trophy, just handed him by Bill Harding, K4AHK (center), while Bob Spidell, W6SKQ, holds his award and smiles his approval. ***(Photo by Ed Popp, K5BOT)***

Page, who is an avid DXer and contester, said he got started in QRP after becoming bored with high-power operating. He said he now constructs his own gear and brought along two versions of a transceiver packaged in a cube about an inch on a side, with which he had worked the United States on 20 and 15 meters, running less than a watt output.

Not only is DXing and contesting possible on QRP but in milliwatting, too, he assured his audience. To back up his words, Page entered the QRP ARCI fall QSO party two weeks later, running 750mW output.

Page, a police sergeant at home, credited a good antenna system for his successes in low-power operating. He said that by starting off at 150mW output in a contest and calling some of the so-called "big-gun contesters," gradually increasing his power until they reply, he is able to determine which of them have good antennas and which rack up high scores solely on the basis of high power.

Hayward, who is an avid backpacker for Field Day and other contests, told the audience he has gotten good results from using a slightly modified ZL Special antenna, which can be rolled up and tucked in a pack for ease of carrying.

The antennas are supported by trees with lines pulled up into them with the aid of fishing weights fired up into the branches with a slingshot.

He cautioned his listeners to paint the weight a bright red so it can be located easily when it comes down the other side.

Weiss' portion of the program was highlighted by his presentation of two of his famous Milliwatt DXCC trophies.

He also lifted a corner on part of the contents of his QRP handbook, which is to be published early in 1984, by delving into the complicated subject of propagation and its effects on high-frequency communications. He said it's not always possible to rely on propagation charts.

Some three dozen QRPers, their wives and guests attended the Friday night dinner during the convention and saw all five guest speakers receive certificates from Gov. Mark White, making them honorary Texans. □

TRAFFIC

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

1984

Now begins the year that provided the title for George Orwell's book. And it's a year about which many prophets, seers, mystics and psychics are warning us, as indeed they have about many other years. One of these years they are going to be right, and then they will say, "We told you so."

As I begin my eighth year of conducting this department, I'll do a bit of foreseeing too. Not that I have any special claim to prophetic insight. I'll just discuss some of the directions in which Amateur Radio's traffic work seems to be going. Of course, if some of the predictions of the prophets mentioned in the first paragraph should happen to be fulfilled, the future of Amateur Radio may take another direction in a hurry. And it doesn't take any prophetic gift to see that the way things are in relations between nations, there's a fair chance that almost anything can happen.

Morse's telegraph required trained operators at both ends of the circuit to tap out and record messages letter by letter. When stations were too far apart, losses in the line made contact impossible. Messages to go longer distances were copied by the operator at a relay point and retransmitted on another circuit. Edison and some others developed repeaters to eliminate this manual operation. Service was improved.

Then Alexander Graham Bell patented "an improvement in telegraphy" that made it unnecessary to write out a message and have it transmitted by skilled operators. With the coming of the telephone, you could talk directly with the person with whom you wished to communicate. However, operators were still needed to make the connections.

Automatic phones and dial phones appeared, making it possible for the user to make connection without an operator. At first, this was restricted to local calls, with human operators linking up the circuits for long-distance calls, but eventually it became possible to dial any telephone in the system direct.

Amateur Radio's traffic system is still in one of the early stages. Messages are, for the most part, relayed manually. And when repeaters are linked for extended coverage, this is generally done manually too, with the repeater's control operator arranging the link-up.

Where do we go from here?

Traffic's future

The ARRL has a Committee on Amateur Radio Digital Communication studying the question of how to incorporate the newer techniques into our Amateur Radio operation, a topic that is also being discussed by the National Traffic System's three area staffs at their meetings, and by other traffic and public service-minded amateurs.

While our present system is adequate for most of the traffic we handle — about as fast as the postal service, it certainly does not take full advantage of what radio communication can offer, and is not really suited for emergency communication, despite the fact that the National Traffic System is supposed to be the long-distance arm of the Amateur Radio Emergency Service.

The trouble is, it isn't being used as such. We're still thinking in terms of the 1930's, when Western Union and Ma Bell sometimes took several hours to handle telegrams or make long-distance connections. An emergency service must be available immediately. If you're on the fourth floor of a burning building, you want somebody to get you out now, not when the net meets. ("OK, we'll call the fire department. Now please put a number on it so we can count it as traffic.")

The new technology will be used in traffic work, regardless of whether NTS makes provision for it or not. If not, NTS will become still more irrelevant as an emergency service. But if NTS finds a way to incorporate digital communications on a regular, reliable basis, Amateur Radio will be able to provide a nationwide emergency communication service to meet almost any need, with traffic being delivered in a matter of seconds, not hours.

There will still be a place, and an important one, for traffic handling as we now do it, handling health and welfare traffic in a communications emergency. Health and welfare traffic tends to be neglected by those involved in preparation for emergency communications, because they rightly believe official traffic is more important. But in most cases, there is ample opportunity to handle both. If they are not to interfere with each other, however, they must be kept separate, with separate teams for each.

Let the ARES people handle the official traffic, which is usually local in nature, and the NTS take care of the health and welfare traffic. A wise Emergency Coordinator will appoint an experienced traffic handler to the post of Assistant Emergency Coordinator for health and welfare traffic, and can then forget about it and give full attention to preparing to take care of the emergency itself. Meanwhile, health and welfare inquiries will be received and processed by others.

The most effective traffic system of the future would seem to combine the best features of new technology and our traditional ways. Extensive use will be made of satellites, of linked repeaters, packet communications, AMTOR, electronic mailboxes, automatic switching, HF, VHF, UHF, microwaves. But the high-tech system will be accessible to amateurs without sophisticated equipment. It should be possible to program the microprocessor at any station where amateurs have access to the system, in such a way that CW can be used if CW is the only mode available to the amateur.

FM and repeaters have given our VHF bands a completely new look. Sideband did the same a generation ago on HF. Now, the last years of this century will see amateur traffic handling similarly revolutionized. Instead of putting your message into a net at a specified time, you will be able to do so 24 hours a day. And instead of two or three days until delivery, your message will be in its destination area in a minute or less.

Telephone deliveries

Last month, we noted that there will probably soon be a charge for calls to Directory Assistance. Additional charges for message delivery might also result from reduction of the area where toll-free calling is possible.

It is expected that what has long been done in some major metropolitan areas of large geographic extent may become general. Calls to exchanges other than one's own, even within the city, carry a toll charge. Where as now an amateur can take traffic for anywhere in the city or suburbs and deliver it by telephone at no charge, it will be necessary to find a station in the free calling area to deliver it.

Some amateurs are suggesting the formation of VHF nets for the purpose. That seems to be a good solution. But how about making use of the ARES VHF nets? It would be good training. On the other hand, a separate net meeting every day could be a better solution, as the ARES nets might be too busy in an emergency to help with health and welfare traffic and the other net could specialize in such traffic.

Amateur Radio on the road

The ARRL is making special efforts to assist amateurs, whether as individuals or as clubs, to give demonstrations to the public — at public exhibitions, fairs, shopping malls and the like, or to groups such as clubs or schools. Anyone planning such a demonstration, or merely debating whether or not to have one, should contact ARRL and ask for help.

One item you will receive is a four-page brochure, *A Guide to Amateur Radio Demonstrations*, which covers both public exhibits and one-shot demonstrations to groups. It contains a summary of what others have learned from giving such demonstrations, what to do and what to avoid.

With regard to traffic handling at exhibits of the public type, you'll find suggestions on how to do it, if you plan to include this activity. It tells you what is needed, adequate personnel, adequate equipment, arrangements to be made in advance to handle the traffic originated at the demonstration. You'll need operators (four hours per shift maximum), chairs, tables, pencils and paper. The brochure suggests contacting your Section Traffic Manager well in advance, and alerting net managers if a traffic overload is expected.

The brochure recommends relaying the traffic from the exhibit via 2 meters. Several groups in the Southeast who have given such demonstrations, however, have found it far more effective to send the traffic by CW. Playing the CW signals into a speaker, it's a sure-fire crowd gatherer. Have another operator sit where visitors can watch as he or she types what is being sent. Using CW doesn't necessarily mean setting up an HF station. You can also send CW (or modulated CW) on VHF.

I said he or she. Having women and young people in what are obviously responsible positions says better than any printed publicity can that our ranks are open to everybody.

Generally, publicity is the primary aim of demonstrations — interesting the public in Amateur Radio, whether to encourage prospective amateurs to take the plunge or to develop good will for Amateur Radio. Hence it is important, and the brochure emphasizes this, that the persons responsible for the demonstration be ready and able to answer questions of either type — how do I become an amateur, when will license classes be taught, how much does it cost, tell me more about Amateur Radio.

Such demonstrations serve two additional purposes, however. They provide a public service. While most messages tend to be trivial, and some traffic handlers tend to view "fair traffic" with contempt, there often are a few messages of more importance.

Even the ordinary routine messages similar to hundreds of others being sent are significant to those who send and receive them. "I love you" is not a message to thrill the heart of the operator who has already sent the words 50 times in other messages. But to the recipient, they can be the three most thrilling words in the English language.

Secondly, such demonstrations provide an excellent training exercise for possible emergency operation. Organizing a demonstration and moving its traffic is not greatly different from setting up an emergency communications center and operating it. The messages to be communicated will differ, but the mechanics are much the same. There's not that much difference between "Having a fine time, wish you were here," and "All safe here, don't worry." Setting up to handle one type of message is also practice in handling the other.

I've touched on only a few of the topics covered in the ARRL's brochure. If you're involved in planning a demonstration, get in touch with ARRL; your demonstration will probably be a better one because you did. □

In last month's column, I commented on the "selling" of SSTV equipment on the air by those who have a commercial interest in SSTV equipment companies.

You know my feelings on that subject. SSTV is not the only specialized communications mode with those problems. I operate a little RTTY now and then and find that on some MSOs, houses and cars are being offered for sale on the air. RTTY writers and columnists are as concerned for their mode as I am for SSTV. It has got to stop before the FCC stops us all.

This month, I will continue with some comments on what is happening on the SSTV frequencies. My comments refer to the SSTV frequencies on 10, 15 and 20 meters. SSTV on 40 and 75 meters is basically regional in nature; groups tend to meet at regular times, and there are no specific frequencies used nationwide.

The SSTV frequencies on 10, 15 and 20 meters provide nationwide as well as international communications. 14.230 is still *the* main SSTV frequency here in the United States. On weekdays, there are usually SSTV contacts or discussions going on most all the time. Activity picks up in the evenings, and often two or more SSTV QSOs operate on adjacent frequencies. 14.230 and nearby frequencies are quite busy on weekends. A good portion of Saturday mornings and afternoons on 14.230 is occupied by two SSTV nets. However, you can often find SSTV QSOs on either side of the net frequency if you don't care to participate or listen to the nets.

28.680 is the next most active SSTV frequency. Many SSTVers prefer to operate only on 10 meters. Much less QRM and you don't have to run a lot of power to exchange closed circuit pictures. Ten meters was really dead this past summer. It picked up a bit in the fall and now, as you read this, should be about as good as 10 will get.

We are on the downside of the current solar cycle and it won't bottom until 1987. It will be some time before conditions get better. There still isn't much SSTV activity on 21.340. There have been many days when I have listened to that frequency for hours and not heard a SSTV signal. I've called and called CQ SSTV with no response. SSTV DXers use this frequency more than SSTVers in the United States.

Within the last few years, a whole new generation of SSTVers has come along. I've said before that SSTVers come and go for various reasons and then return again, but there is more than just this natural cycle. The coming of inexpensive home computers has brought many people to SSTV. The SSTV equipment of today and the future is microprocessor-based.

I'm not sure the coming of the transistor to Amateur Radio compares with the coming of the microprocessor to SSTV, but there is sure a lot to learn if you care to. Some are willing and some will have none of it. Perhaps this is part of the reason for this new generation of SSTVers with only a fraction of the old timers still around? I guess it is fair to report that there is at least as much discussion, if not more, on the SSTV frequencies about new SSTV equipment and innovations, as actual video being sent. This is natural in these new and changing times.

I regularly receive reports from people who are going to establish a new SSTV frequency here or there, or say what should and should not be down on SSTV frequencies. If and when new SSTV frequencies do become *well* established, I will report them here. 14.340 was a new SSTV frequency, but has been pretty much abandoned. I'll repeat what I have said many times.

Those using a particular frequency can do pretty much what they please on that frequency, SSTV or otherwise. If anyone does not care for what is going on, they can move to another frequency and start up their own QSO or call CQ SSTV. If you do move to an adjacent frequency, please move far enough away so as not to interfere with the other SSTV QSO. We don't need arguments among SSTVers.

By and large, SSTVers are a very independent group, yet fiercely loyal to SSTV. I consider myself in that category. Others in the past have published various frequencies, modes and SSTV formats to be followed. These have always been thought of as someone telling you when, where and how to operate. Being an independent and loyal SSTVer, I have *NO* intention of telling you when, where and how to operate. Just have fun, whatever you do.

1984 Dayton Hamvention

The Dayton Hamvention is the granddaddy hamvention of them all. Although it is several months away, many plans have already been made and finalized for it. As was the case last year, the Holiday Inn North of Dayton will be the SSTV headquarters for the Dayton Hamvention.

All known SSTV meetings and get-togethers will take place at this hotel. Don Miller's SSTV experimenters meeting will move to the Holiday Inn North for 1984. IVCA will hold its important organizational meeting there, and some other meetings and perhaps an SSTV party will take place at the Holiday Inn North for the 1984 Dayton Hamvention.

I will not be directly involved in the running of any SSTV meeting or forum at Dayton. I'll attend all the SSTV meetings and the forum and report on the Dayton Hamvention here in **Worldradio**. I will be involved in two other forums there, and will attend several other meetings already scheduled.

I have retained the block of rooms I had reserved at the Holiday Inn North last year. Many of you took advantage of the opportunity to stay at the same hotel with other SSTVers. This hotel is one of the closest to the Hara Arena Hamvention site, has a Holidome and indoor pool, and everything pertaining to SSTV — other than at Hara Arena — will take place there.

I am making the block of rooms I have reserved available to SSTVers on a first-come first-served basis. The rest of the rooms in this hotel are already booked. If you are going to Dayton or thinking about it, you may wish to reserve a room at the Holiday Inn North from the rooms I have reserved.

I make nothing on this deal. I pay for my room just as you would. This is being done strictly as a convenience to SSTVers. It provides a convenient location for all of us to get together and visit and socialize without running all over that busy city.

If you wish to reserve a room for the 1984 Dayton Hamvention at the Holiday Inn North, a $50 deposit is required. This deposit will be refunded by the hotel if you cannot go. Make your deposit check payable to Holiday Inn North, not to me, in the amount of $50 for each room you wish. I will assemble the reservations and deposits and forward them to the hotel after 31 January 1984, or sooner if all rooms are taken. You will receive a written confirmation directly from the hotel and deal with them the rest of the way.

I need the following information plus a $50 deposit for each room you want to reserve.

Name and call sign
Address, City, State and Zip
Phone number
1 double bed or 2 double bed room
Date of arrival: 4/26/84 or 4/27/84
Number of days you will stay

I must receive this by no later than 31 January 1984. Again, make deposit checks payable to Holiday Inn North, and mail the check plus the above information *TO ME.* Ron Flynn, KB8LU, Rt. 2 Box 204, 67th St., Bangor, MI 49013. Happy Holidays and all the best in 1984! □

Information in "New Products" is supplied by the manufacturers to acquaint *Worldradio* readers with new products on the market.

Automatic antenna tuner

Trio-Kenwood Communications — a Comp-on, California-based manufacturer of quality Amateur Radio equipment — has just an-nounced the all-new AT-250 Automatic Anten-na Tuner.

While this new antenna tuner has been pecifically designed to be a match for Ken-wood's popular TS-430S HF transceiver in size, olor and general appearance, it is functionally ompatible with any HF transceiver of 200 watts PEP or lower. When used with the TS-430S, its ABC (automatic band change) ystem handles all switching from band to band. If the transceiver is other than the TS-430S, manual switching from band to band s required.

It covers 160-10 meters, including WARC; as a front panel SWR/power meter; features our separate antenna terminals; and comes omplete with a built-in AC power supply.

Additional information about this new pro-uct may be obtained by contacting your earest Kenwood authorized dealer, or by riting to: Trio-Kenwood Communications, 111 West Walnut St., Compton, CA 90220. □

2-meter transceiver

ICOM is proud to announce the introduction f a new base station transceiver for 2 meters - the IC-271A. The IC-271A covers the entire -meter ham band, and features FM/upper side-and/lower sideband and CW modes.

The IC-271A has a 25 watt output standard, with an optional built-in power supply. It has 32 full-function memories. Built-in sub-audible tones selectable from the main tuning dial pro-vide ease of operation. Frequencies, modes, tone and offset may be written into each memory. Scanning is possible with the IC-271A; either the whole band, memories or selected modes may be scanned.

The IC-271A features ICOM's new high-contrast, two-color display, showing frequency digits in white and control functions in red. Pricing of this unit is to be announced shortly.

For more information, contact ICOM, 2112-116th Ave. NE, Bellevue, WA 98004; (206) 454-8155. □

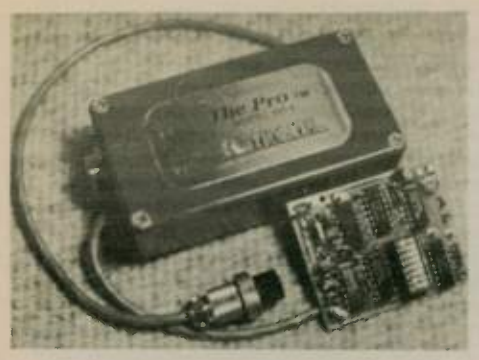
'The PRO' BEEPER

Faxscan, Inc. has announced the introduction of their Model BP-4 BEEPER, "The PRO". The PRO continues the concept of a "Courtesy Beep" to signal the beginning and end of each transmission by automatically injecting a gentle high frequency beep into the mic line at the start of the transmission and a low one at the end. This basic idea has been used for years in commercial and military applications, and NASA has used it for ground-to-space voice communications. The PRO is an upgraded version of Faxscan's model BP-3, which has been marketed to the Amateur Radio community worldwide for the past three years.

The PRO adds several features not found in the BP-3. Most notable is the inclusion of a sophisticated digitally-programmable timer. The user may select timing periods from ap-proximately 43 seconds to 10.5 minutes. Pro-gramming is accomplished by setting tiny DIP-switches on the circuit board. The timer may be used as an ID timer or to warn you of impending timeout on a repeater. Timeout is noted by a unique double four-beep sequence via a piezoelectric transducer; there is no speaker. Volume of this warning is also pro-grammable, and the warning is not transmitted.

Unlike the earlier BP-3, the beginning beep can be deleted by the setting of a switch. In

Please see page 9



this mode, a beep is added only to the end of your transmission.

Finally, the PRO incorporates a "Slumber Mode" to extend battery life. There is no On/Off switch. Instead, the unit senses the lack of activity and shuts itself down. A single 9 volt battery (not supplied) powers the unit continuously for up to a full year.

Faxscan includes a five-page manual with the PRO detailing theory of operation, instructions for programming the various functions, and a full-page schematic/layout along with interfacing tips. In general, the PRO will work with virtually all modern gear. Specifically, this BEEPER will interface directly to any rig employing a positive potential on the PTT line of less than +24VDC and which transmits when the PTT line is pulled down to +0.7VDC at less than 100mA current.

The BEEPER comes in three versions. The "A" version includes a cast-aluminum enclosure, cable and standard 4-pin mic connectors installed. The "B" version is the same, but without connectors. You simply add those of your choice. The "C" version is a circuit board model for custom installation. For instance, the "C" version can be tucked inside your rig or is a perfect repeater accessory. The PRO is easily modified for most any application, and the manual contains full details.

All units are fully assembled, tested, and carry a 90-day limited warranty. Faxscan ships all units postage-paid in the United States. The BP-4A is $79, BP-4B is $69, and the BP-4C is $49. □

Computerized ANTENNA DESIGN

The ANTENNA DESIGN program was designed to give the antenna builder the proper sizes for the construction and planning of many different kinds of antenna arrays. The antenna types that are covered by this program are: quad, Yagi, dipoles, inverted Vee's, verticals and log periodic arrays.

Also covered by this program are routines needed in the planning and construction of multi-antenna arrays. These routines are Phasing Lines, Phased Vertical Spacings and Stacking. This program was designed to support the VIC printer, but you can still enjoy the use of this program even if you don't own a printer.

ANTENNA DESIGN is available on tape for Commodore 64 and VIC-20 for $9.95, or on diskette for $12.95. Please add $2 shipping and handling and write to RAK Electronics, Box 1585, Orange Park, FL 32067-1585 for a free catalog of other software. □

RTTY MACHINE

COTEC announces the latest in its line of APPLE II software for communications. RTTY MACHINE, like its Morse code predecessor, is designed to minimize the interface hardware. Audio tones fed into the APPLE cassette input will be demodulated and decoded in software, and sent to the screen as text. Keyboard input will be encoded to Baudot and sent to the cassette output as MARK (2125 Hz) and SPACE (2295 Hz) tones. All that is necessary to run standard TTY is a pair of audio cables with the necessary connectors between the speaker output and microphone input of an SSB or FM transceiver and the cassette ports of the APPLE.

The receive portion of the program has two modes of operation. For afsk which is typical of VHF/UHF operation, the program is operated in the absolute mode: 2125/2295 MARK/SPACE. For use with an HF transceiver, a second mode can be used to match the software discriminator frequency to the center of the receiver audio passband so that increased selectivity may be used. A novel real-time tuning indicator at the top of the screen assists the operator in making the tuning adjustments.

The transmitting portion also has two modes of operation. In the first mode, each character is sent as a key is pressed. This is similar to the way the standard mechanical TTY machines operate. The second mode allows the sender to prepare and edit a message before sending it. A number of automatic formatting features are built in for operator convenience.

In addition to the cassette port interface, DC output through the Game I/O connector is available to drive frequency shift keying circuitry and transmit/receive switching. Two printer drivers are also included in the software which converts the received signal to ASCII for generating hard copy.

Written in machine language for the APPLE II, APPLE II+, or APPLE //e using DOS 3.3, RTTY MACHINE comes double-sided on a 5.25″ diskette with full instructions for installation and use.

RTTY MACHINE is available for $29.95, including postage and handling. California residents add sales tax. Please, no COD orders. Foreign orders add $4. COTEC, 13462 Hammons Ave., Saratoga, CA 95070. □

MARBLE I

The second industrial revolution is here and now you can participate too! The MARBLE I is an attractive low-cost solution to your control problems; a powerful computer that is friendly and fully supported with a wide range of hardware and software. It is ideal for Amateur Radio station applications — RFI-proof, shielded, and fully compatible with Franklin Ace, Apple II, etc. It is suitable especially for small companies as well as for large corporations, yet priced at a fraction of the cost of many other industrial controllers.

The MARBLE comes packaged in an interference-proof cabinet and ready for use on the factory floor as well as in the laboratory or office.

Industrial controller

Outfitted with the necessary interface circuit cards, it controls any needed assemblage of actuators, DC servos, stepping motors, etc. Sensing and interfacing with the digital or analog world is accomplished by the use of standard or custom interface circuits that are plugged into the main board. The controller alone, with its own software can control a variety of machines, laboratory equipment, robots and other mechanical or electronic devices.

Software can be "burned-in" to the EPROM or EEPROM, and the controller then becomes dedicated to the programmed application. Changes or reprogramming can be done on the spot without needing costly microprocessor development systems.

Microprocessor development

Simply by adding peripheral equipment to the main controller unit and using the appropriate software, MARBLE becomes a microprocessor development system. The minimum requirements for peripherals are: a keyboard, video monitor, disk drive and printer.

Software can be written and debugged in the BASIC language. After the software is working satisfactorily, it can be converted to assembler and machine language with help of a compiler, transferred onto the EPROM, and plugged into the controller ready for use.

Business or engineering

The MARBLE can also be used as a general purpose computer in office or engineering applications. It supports word processing, business accounting, spread sheet and graphics programs, and is compatible with a large library of existing software. With the addition of a Z80 processor card, it supports the CP/M operating system and a variety of programming languages. Connect a modem and it becomes a remote terminal capable of communicating with other computers and useable for remote monitoring and diagnostics. The MARBLE can grow with your growing needs. Modularity and expandability allow the MARBLE to be a versatile multi-purpose computer controller at an affordable price.

The MARBLE II has the same features and specifications, except the keyboard and processor are one integral unit and are not in the shielded enclosure.

For more information, write to Blanarovich Engineering Inc., Box 65, Don Mills, Ontario M3C 2R6 CANADA. □

CONTESTS

Rats Nest and Crooked Stick IV

This antenna experimenter's contest sprint, sponsored by the Issaquah ARC (IARC), will be held from 2100Z, 08 January to 0100Z, 09 January.

Frequencies: *CW* — 21.060 to 21.200 MHz; *SSB* — 21.350 to 21.450 MHz.

Rats Nest and Crooked Stick Antenna: 100 ft. maximum of single conductor wire (solid or stranded), any configuration. Feedline will not have to count as part of the 100 ft. only if it is coaxial cable. Antenna height is limited to 20 ft. at the center of high current (i.e., center of dipole, center of quad, base of quarter-wave vertical).

Transmitter power: 250 watts or less (DC input)

Exchange: Name, location (QTH), type of antenna, IARC member (yes or no)

Scoring: CW contact-frequency 21.060 to 21.099 MHz — 5 pts.; CW contact-frequency 21.100 to 21.200 MHz — 10 pts.; SSB contact-frequency 21.350 to 21.450 MHz — 2 pts.

A station may be contacted once on SSB and once on CW. Each dupe contest committee finds is penalized by a loss of 10 pts.

Bonus:
Each new state worked — 3 pts.
Worked all 7th call area states (8) — 50 pts.
Worked all states (50) — 75 pts.
Each new call area worked — 5 pts.
Worked all 10 U.S. call areas — 35 pts.
7 or more CW contacts — 25 pts.
15 or more CW contacts — 75 pts.
Each DX contact (KH6, KL7, VE, XE, JA, etc.) — 5 pts.

Categories: 1) Non-IARC member using a Rats Nest and Crooked Stick antenna. 2) IARC member using a Rats Nest and Crooked Stick antenna. 3) IARC member using a conventional base station antenna. 4) A station making contact with three IARC members during contest.

Awards: In each of the above (1), (2) and (3) categories: A) High overall score, B) High CW score (without bonus), C) High SSB score (without bonus), D) High Novice/Technician score, E) Participant (one hour or more operation). In the above (4) category: "Rat Catcher" certificate.

Contest entries: Submit by 01 February 1984. *Summary sheet* — points per mode, bonus points earned, total points earned, name, call, address, complete description of antenna and equipment used, license class. *Logsheet* — time, call, frequency, mode, exchange.

Rat Catcher entries: Submit logsheet showing three contacts with Issaquah ARC members during contest.

All correspondence must include SASE. Send to: Issaquah ARC, Bob Farnworth, KB7NV, 6822 - 131st Ave. SE, Bellevue, WA 98006. All decisions by the contest committee will be final. □

160-meter World SSB Championship Contest

The 5th Annual 160-meter World SSB Championship Contest, sponsored by 73 Magazine, will be held from 0000Z, 14 January, to 2400Z, 15 January.

Object: To work as many stations as possible on 160-meter phone in a maximum of 32 hours allowable contest time. Multi-operator stations may operate the entire 48-hour contest period. Stations may be worked only once.

Entry categories: 1) Single Operator, Single Transmitter, Phone only; 2) Multi-operator, Single Transmitter, Phone only.

Exchange: Stations within the continental United States and Canada transmit RS report and state or province/territory. All others transmit RS report and DX country.

Points: 5 QSO pts. for contact with W/VE stations contacted within the continental 48 U.S. states and Canada. All other contacts earn 10 pts. each.

Multipliers: 1 multiplier point will be earned for each of the continental U.S. states (48 maximum-a District of Columbia contact may be substituted for a state of Maryland multiplier), each of the Canadian provinces/territories (13 maximum), and each DX country outside the continental 48 U.S. states and Canada.

Final score: Total QSO points × total multiplier points = claimed score.

Contest entries: Each entry must include logsheets, dupesheet for 100 or more contacts, a contest summary and a multiplier check sheet.

Entry deadline: All entries must be postmarked no later than 19 February 1984.

DX Window: Stations are expected to observe the DX Window from 1.825-1.830 MHz as mutually agreed by top band operators. Stations in the United States and Canada are asked not to transmit in this 5 kHz segment of the band. During the contest, all W/VE stations are requested to utilize only those frequencies from 1.808-1.825 and 1.830-1.900 MHz.

Disqualifications: Disqualification may result if contestant omits any required entry form, operates in excess of legal power authorized for his/her given area, manipulates operating times to achieve a score advantage, or fails to omit duplicate contacts which reduce the overall score more than 2 percent. Decisions of the contest committee are final.

Awards: Contest awards will be issued in each entry category in each of the continental U.S. states, each Canadian province/territory, and each DX country. A minimum of 100 QSOs must be worked to qualify.

Contest address: To obtain information, entry forms, or to submit a contest entry, forward an SASE to: 160-meter Contest, Harry Arsenault, K1PLR, 603 Powell Ave., Erie, PA 16505. □

If a foreign amateur visits your area, do a picture story for Worldradio

Michigan YL QSO Party

The 1983 Michigan YL QSO Party, sponsored by the TASYL's (The Auto State Young Ladies), will be held from 1800Z, 28 January until 1800Z, 29 January (phone and CW).

No crossband, net or repeater QSOs. Work stations once, exchange call, signal report, QTH and TASYL number if working a member.

Points: × 2 for CW, × 2 for working a TASYL. Multiply the QSO points by number of different ARRL sections and DX countries worked. Michigan stations must work 15 pts.; others need only work 10 pts. Charter members 1 through 50 count 2 pts. All others count 1 pt.

Entries must be received by 25 February 1984. Send entries (logs) to TASYL President Carol Hall, WD8DQG, 4651 Cardinal Dr., Mt. Pleasant, MI 48858.

A TASYL certificate may be earned during the QSO party. To receive it, submit a signed and dated log, showing date, time of contact, call signs, frequency, RST and TASYL number. Certification giving date and QTH must be on the original application and signed by one of the following: 1) two licensed amateurs, General Class or higher — non-family; 2) one official of a recognized club; 3) notary public. Enclose $1 for mailing cost.

Order certificate from Carol Hall (see address above). A smaller version of the certificate will be given for participation in the Michigan YL QSO Party. □

Zero District QSO Party

The Zero District QSO Party will be held 4-5 February. Operating hours will be: 1900Z, 4 February to 0100Z, 5 February, and 1500Z to 2400Z, 5 February.

The Zero District QSO Party is sponsored by the Davenport Radio Amateur Club. The contest period is in two sections, as given above. Stations outside of the zero district will work zero district stations only; zero district stations may work anyone. The same station may be worked once on each band (80, 40, 20, 15 and 10 meters only) and each mode (CW and phone). **Exception:** Mobile stations may be worked each time they change counties.

All stations exchange RS(T) and ARRL section. Zero district stations must also send county.

Each phone QSO is worth 1 pt. and a CW QSO is worth 2 pts. Stations outside of the zero district obtain score by adding phone QSO points and CW QSO points, then multiplying by the number of zero district counties. Zeroes score by adding phone QSO points and CW QSO points. This is multiplied by the total of ARRL sections, zero district counties and DXCC countries.

Suggested frequencies: 3560, 7060, 14060, 21060, 28060, and 3900, 7270, 14300, 21370, 28570. *Novice* — 3725, 7125, 21125, 28125.

A plaque will be awarded to the high scorer in the zero district and to the high scorer from outside zero land. Certificates will be awarded for the high score in each ARRL section, DXCC country, Novice/Technician Class and mobile category. Results and a participation certificate will be issued to all entrants who include SASE.

Mail logs by 10 March 1984 to W0BXR, 2131 Myrtle, Davenport, IA 52804. □

Vermont QSO Party

The 1984 Vermont QSO Party, sponsored by the Central Vermont ARC (W1BD), will be held from 2100Z, 4 February to 0700Z, 5 February, and from 1100Z to 2400Z, 5 February.

Frequencies: *Phone* — 3910, 7230, 14260, 14320, 21360, 28570, 50110, 144.2; *CW* — 3530, 3730, 7030, 7130, 14060, 21060, 21160, 28060; *RTTY* — 3620 and **090 other RTTY sub-bands

Exchange: VT stations send QSO number, two-letter county designator (AD, BE, CA, CH, ES, FR, GI, LA, OE, OS, RU, WA, WM, WR). Other stations send QSO number and state or province. Do *NOT* send RS(T).

Scoring: *VT stations* — 1 pt. per phone contact, 2 pts. per CW or RTTY contact. Multiply by the number of states plus Canadian provinces plus ARRL countries (non-W/VE). *Other stations* — 1 pt. per phone contact, 2 pts. per CW or RTTY contact. Multiply by number of VT counties.

Rules: A station may be worked three times per band — once each on phone, CW or RTTY. CW and RTTY contacts must be on CW and RTTY sub-bands. Duplicate contacts invalid.

Awards: *Non-VT* — Certificate to highest-scoring station in each state, province, country. *Vermont* — Certificate to each station submitting a log. Plaque (annual) to highest-scoring VT station. W/VT Award to stations working 13 of Vermont's 14 counties.

Send SASE now for official log and score sheets. SASE for results. Send logs/facsimiles, name, address, county (Vermont), no later than 01 March 1984 to: D. Nevin, KK1U, West Hill, Northfield, VT 05663. □

Florida

The Sarasota Hamfest, sponsored by the SARASOTA AMATEUR RADIO ASSOCIATION, will be held 14-15 January, in the Exhibition Hall, U.S. 41, Sarasota, Florida.

Tickets are $3 in advance, $4 at the door. Booths — $60 each; additional booths $45 each. Two free tickets with each booth. Tables — $12 each (two days; no one-day tables). One free ticket with each table. All booth and table reservations must be made in advance and must be accompanied by payment in full. Reservations will be made on a first-come first-served basis. Help available for unloading and loading if needed.

Make checks and money orders payable to: Sarasota Hamfest. Mail to: Louis Boehlein, N4EWR, Director, Sarasota Hamfest, 4251 Bee Ridge Rd., Sarasota, FL 33583. □

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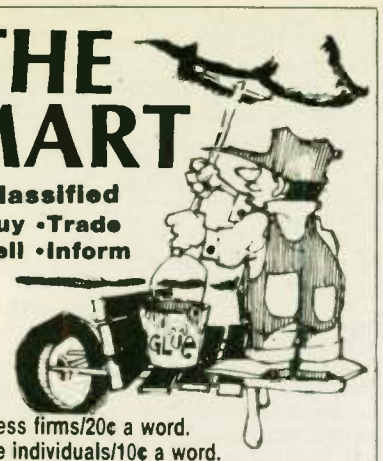
Contact Worldradio for hamfest prizes.

THE MART



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WYOMING AND UTAH RANCH LAND. Wild horses, antelope, deer. Near paved road. 10 acres — $60 down, $60/month. FREE information, maps, photographs. (Offer void in Calif.) Will trade equity for ham gear, home computer, test equipment, etc. Owner — Dr. Michael Gauthier, K6ICS, 9550 W. Gallatin Road, Downey, CA 90240.

The SOCIETY OF WIRELESS PIONEERS, Inc., invites all professional operators, active or retired, military or commercial, to join the world's largest organization of its kind. Many active nets. Write Box 530, Santa Rosa, CA 95402 for details or send $1 to pay postage on sample SPARKS JOURNAL.

EDITING A CLUB PAPER? Need one for your club? Interested in Amateur Radio public relations? Need some help? Amateur Radio News Service would like to hear from you. For info write Fran Norrick, WB9WPS, Route 6, Box 239, Kankakee, IL 60901.

POOR MAN'S VOICE PROCESSOR/ACCENTUATER for "MC-50/60" microphone — $9.95. KD7X, 405 Whittier, Silverton, OR 97381.

WOW! NEW MFJ 1224 CW/RTTY/ASCII terminal units at $90. Full featured. Works with popular software packages for VIC, C64, Atari, PET, Apple, TRS-80C TI99/4A. Free shipping, VISA/MC, check, C.O.D. AMATEUR ACCESSORIES, 6 Harvest Ct, RD 7, Flemington NJ 08822, (201) 782-1551 after 6 p.m. Eastern.

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CRYSTALS: FT-243 holder type customed to your frequency (3-9 MHz). We specialize in NOVICE and the new bands. SASE to: Ev. Taylor (W7BYF), 2921 Loyola Dr., Davis, CA 95616.

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HAPPY NEW YEAR! Please help the kids at Junior High School 22 on Manhattan's Lower East Side have one also. WB2JKJ via callbook.

WANTED-WANTED-WANTED. CASH PAID-CASH PAID-CASH PAID for ROSE BOWL tickets. My alma mater is in it for the first time in 20 years! I may never have the chance to go again! Steve, 6 Harvest Court, RD7, Flemington NJ 08822. (201)782-1551 after 6:30 p.m. Eastern.

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MIRROR IN-THE-LID, and other pre-1946 television sets, picture tubes, parts, magazines wanted for substantial cash. Especially interested in any RCA "TRK", G.E. "HM", or Westinghouse "WRT" series set. Arnold Chase, 9 Rushleigh Road, West Hartford, CT 06117. (203) 521-5280.

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CODE PROFICIENCY DRILLS are transmitted from WB3IVO, BRASS POUNDERS ARC, each Saturday and Tuesday starting 0200Z on 3560 kcs. Each Saturday and Sunday starting 2000Z on 7060 kcs. Monday through Friday starting 1930Z on 14060 kcs. Speed ranges from 20 to 60 WPM.

TRADE OR SWAP, my CW station. Knight Twins Plus for mobile rig or ?? SASE for reply to Ham Box 846, Mobile, AL 36601.

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CHASSIS AND CABINETS kits. SASE, K3IWK.

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SAROC ANNUAL PRESTIGE CONVENTION hosted by Southern Nevada ARC, Inc., at HACIENDA RESORT HOTEL, Las Vegas, January 12-13-14-15, 1984. SAROC room rate $35.00 (plus .50 telephone) per night, single or double occupancy, call 1-800-634-6713. Included with Advance Registration $17.00 per person: technical sessions and exhibits (on Friday and Saturday); coupon for cocktail party for adults only (on Friday) hosted by HAM RADIO MAGAZINE; Awards and Ladies' Program (on Saturday), one each breakfast or brunch (on Saturday and Sunday); one FREE SWAP TABLE for non-commercial guest (on Friday and Saturday). QSL with check to SAROC, POB 945, Boulder City, NV 89005-0945.

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ASCII6 TO MORSE — printed circuit board with programmed EPROM and complete instructions for building N7AGK Morse keyboard. Circuitry includes 192 character buffer memory, automatic character spacing, space bar operated word spacing, relay keying circuit, A.F. monitor, etc. Operates from ASCII keyboard or other parallel ASCII source. Printed circuit board, programmed EPROM and complete instructions, $30 postpaid in the U.S. and Canada. CARL H. DAHLBERG, N7AGK, P.O. Box 753, Bonners Ferry, ID 83805.

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SINCLAIR/TIMEX HAM PROGRAMS. Scanner, shortwave log. CW/RTTY send/receive. SASE for information. TI 99/4A scanner, SWL log book — $10.50 PP. KENTRONICS, Box 586, Vernon, AL 35592.

SELL OR TRADE: HAL DS2000KSR Keyboard CW/RTTY w/MR-2000 Morse decoder, ST-5000 Demodulator/keyer, w/manuals in like-new condition, and used 9" TV monitor, $500 or trade for Collins 75S3B/C with 500 Hz filter in excellent condition. W4JFE/7 (503) 639-0503 anytime.

HOSS-TRADER Ed says, "Shop around for the best price, then telephone the HOSS last for the best deal." New display Drake TR-7A & PS-7 supply, regularly $2138.00, cash $1349.00. Display ICOM IC-2AT-$189.00. New Azden PCS-4000-$268.00. Display ICOM-730, regularly $829.00, cash $539.00. New ICOM 25-A-$269.00. New Drake L-7 linear-$879.00. New KDK Model-2030-$249.00. New ICOM-740 with factory-installed power supply, regularly $1258.00, cash $849.00. New Display ICOM-751-$1095.00. New display ICOM-745-$819.00. Mint Collins KWM-2-$545.00. Perfect Drake B-line-$599.00. New Model ICOM-02AT with scan & 32 tones, regularly $349.00, cash $295.00. New display Ham-4-$185.00. 100' RG8 coax-$24.95. VISA accepted! MOORY ELECTRONICS COMPANY, P.O. BOX 506, DeWitt, AR 72042, Tel: (501) 946-2820.

COLLINS KWM-2A (R/E), with 516-F2 supply. Nice condition, $495. Mint Henry 2K-2 80M-10M 2kW linear, pick-up only, $650. Dean (916) 965-1027 days, 965-4904 eves.

YAESU FR1015 rcvr. 160 thru 10, all modes. Mint $275 or trade for Argonaut or Atlas 215. WA1EDN, Jim, 1 (413) 783-3172.

WANTED: 3KW TUNER Dentron DTR-3KA, or MT-3000A. W0 UHN, Rt. #2, Box 340, Belton, MO 64012. Tele. (816) 331-2587.

WANTED: TRIAD JO-3 600/60K transformer. SELL: back issues Sparks Journal — $2.00eapp. W6XM, 528 Colima, La Jolla, CA 92037.

PRINTER PAPER -9½" × 11", 15 lb. white 500 sheets $6.50 plus $1.50 shipping per pack. WI res. add 5% tax BEL-TEK P.O. Box 125 W Beloit, WI 53511.

SALE: JOHNSON NAVIGATOR — $65, Challenger — $39, Drake 2C — $115, Drake 2B w/cal. — $125. Manuals for all. FOB. W3NCX, 1005 Wyoming, Allentown, PA 18103.

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