Worldradio

October 1981 • Year 11, Issue 4 • 80¢

Life saved on Pitcairn

Deb Miller, Correspondent
Submitted by Ralph Cabanillas, Jr., W6IL

Few doctors make house calls these days, let alone to an island in the South Pacific, but one local doctor did, via Amateur Radio, and saved a patient's life.

Dr. J.C. Drachenberg, LU6JBF/W6, vice-chairman of the obstetric and gynecology department at the Glendale Adventist Medical Center, Glendale, California, was the hero as he radioed instructions to a nurse on Pitcairn Island, during the period 14-16 July.

Drachenberg has communicated with the island residents several times by way of Amateur Radio and is in "sympathy with them in the middle of nowhere." He offered his help to them if they ever needed it.

The need arose when the wife of the island's ham operator—Tom Christian, VR6TC—developed complications 20 weeks into her pregnancy. "Her water bag broke, and we usually write off the baby," Drachenberg said. "The risks of infection for the mother are high."

Drachenberg indicated how to perform the necessary medical attention the woman (Betty) needed to a "scared" nurse (Mrs. Yvonne Stimpson) who had never done anything like this before. The "critical" process took 36 hours, with the doctor checking up on his patient every four to six hours.

Because Drachenberg was busy with his hospital duties, two fellow radio operators—Harold Richards Jr., WD6BDZ, and Ralph Cabanillas Jr., W6IL—kept in contact with the island and then phone patched to the doctor in the delivery room, office or anywhere he happened to be at the time. (At one point, Harold had to QRX while the doctor delivered a baby girl.)

Further complications developed when the birth control device that had caused some of the problems failed to be expelled. After two more hours of trying to remove the IUD, the nurse indicated she would have to send the patient to New Zealand, because of the limited facilities on the island.

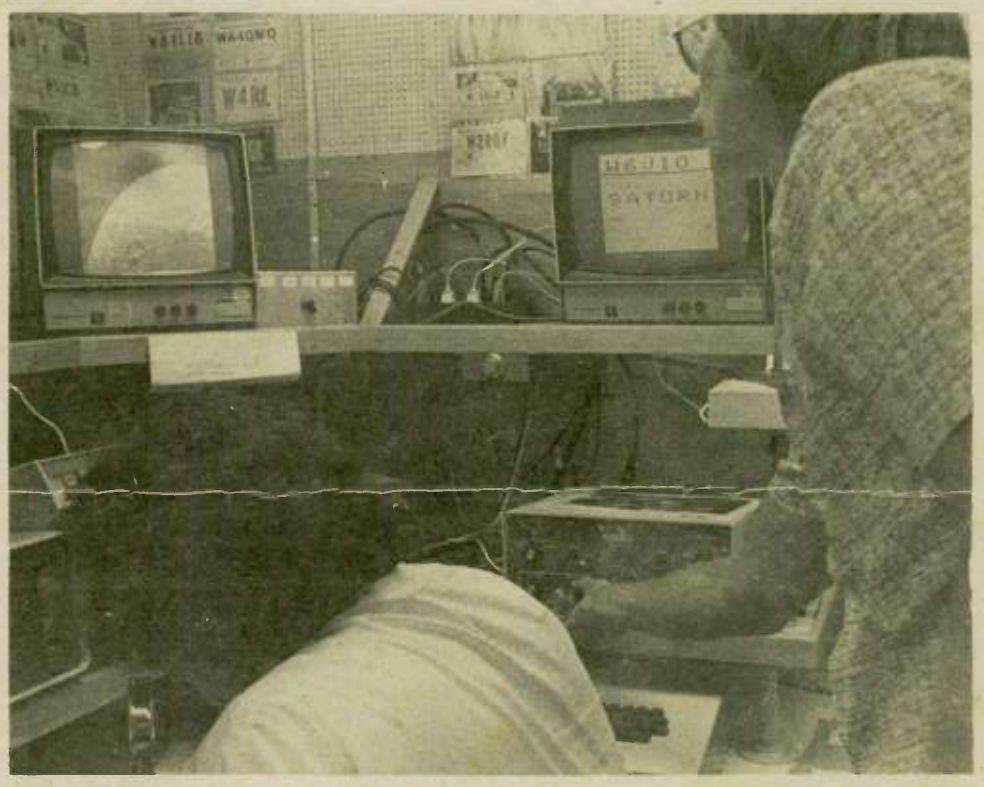
"It takes nine days by ship to get to New Zealand and the next ship wasn't coming for eight weeks," Drachenberg said. So instead he instructed the nurse how to make a surgical instrument out of electrical wire and a welding machine. The operation was a success. "I feel proud I was able to do this," he said. "The nurse followed instructions so closely and so well. It was essential."

This is not the first time he has saved a life with his Amateur Radio. Drachenberg worked 12 years in the mission field in Paraguay and Argentina, and is now the official contact with Argentina. If a certain medicine is needed, Drachenberg will go out and buy it and then mail it to the people. "I saved a child by sending the right medicine at the right time," he said.

The doctor has been a radio operator for 17 years, but credits his success with the island woman to his mission experience. "I had a chance to work with a small amount of facilities," he said. "Most American doctors might not know how to make equipment using what is available. It comes out when we are in the field and have to do it."

Drachenberg enjoys the radio. "It's something different," he said. "I don't have to behave like a doctor and it's fun. It's a way of serving the community."
—Glendale News-Press

ED: Although Mrs. Christian lost the baby (a boy), she is doing well and is very grateful to those who were instrumental in saving her life: Dr. Drachenberg, Yvonne Stimpson, Harold Richards, Ralph Cabinillas and the Lord. She hopes that publication of this story may bring about a renewal of third-party traffic, which is presently being discussed in London. Dr. Drachenberg gives his thanks to the radio amateurs who cooperated in keeping QRM down during very difficult operating through QRN. □



Art Zygielbaum, WA6SAL (seated) and Jim Lumsden, WA6MYJ set up a Slow Scan TV image of a Saturn moon.

W6VIO Voyager In Outer Space

Norm Chalfin, K6PGX

The JPL Amateur Radio Club station W6VIO again celebrated a commemorative activity communicating with other amateurs around the world the technical data and pictures from Voyager II as it flew by the planet Saturn. The club members made 11,310 contacts. Contacts were made with amateurs in Australia, New Zealand, Europe, Asia — pretty nearly all areas of the world. In fact, Amateur Radio operators everywhere were seeking to contact the JPL station W6VIO. To many of these areas, the Slow Scan TV (SSTV) pictures were transmitted by W6VIO in both monochrome and color, providing images of Saturn and its rings and moons. In some of these areas, the JPL club's transmissions were the only news that had been received about the Voyager flyby.

Members of the club operated before work each morning and during lunch periods and after work beginning at 4:00 p.m. local time. Some continued into the wee small hours of the morning.

Transmissions and contacts were made on the HF amateur bands (40, 20, 15 and 10 meters) and also on UHF bands on 2 meters and 1¼ meters.

The Slow Scan images were received by W6VIO; at Boeing in Seattle, Washington; at ARRL Headquarters; and at museums in many parts of the country. In some of these locations, large screen TV's were open to the public. Color TV images of Saturn's rings and moons were broadcast from an amateur TV repeater at JPL on 23cm to the Pasadena Civic Auditorium for the Planetfest '81, where the general public was admitted to see them. From the auditorium, the

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Sympathy extended to Kansas City victims

Larry Wilson, K0RWL

Shortly after 7:00 p.m. on Friday, 17 July, two catwalks at the Hyatt Regency Hotel in Kansas City, Missouri collasped. It would be Sunday before the final count of the dead and injured was known.

By 7:50 p.m., the Amateur Radio community had sprung into action. An emergency net had been established using repeaters 146.34/.94 and 146.37/.97. Radio amateurs were dispatched to 17 area hospitals; two amateurs were sent to the command post at the Hyatt Regency. Through the night, these 28 amateurs handled a total of 125 messages — seven originated, 55 received, 62 sent and one delivered. Sometimes they were able to get names of injured persons. Sometimes they were able to locate a missing person. Sometimes no information could be obtained.

They kept their vigil until 1:00 a.m. and through the net were able to account for 157 injured, 67 admitted to area hospitals and three deceased. Most of the deceased were not brought out until all of the injured had been taken to hospitals.

In the wake of this disaster it was learned that 188 persons were injured and 111 were killed.

The radio amateur community is saddened by the deaths of Jim Dougherty, WA0KDJ and his wife. Our prayers go out to Harry Wilbur, KB0KX, who was seriously injured and for his wife who was killed. Our deepest sympathy is felt for the friends and relatives of those who were lost in this tragedy.

The death toll may go higher in the days to come, but through the efforts of those 28 amateurs, perhaps some of the anxiety of the long night spent waiting

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New ARRL Net Directory

The new edition of the ARRL Net Directory is now available. Listing over 1,000 public service nets by location and frequency, this newly revised booklet is also packed with information on all the basics of traffic handling and net operation. You may obtain a copy by sending a self-addressed 9-by-12-inch envelope with 69 cents U.S. postage to ARRL Net Directory, 225 Main Street, Newington, CT 06111. □

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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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SIRS announces band changes

Submitted by David Rankin, 9VIRH/VK3QV

The Solomon Islands Radio Society (SIRS) has announced that the following changes in amateur bands have been approved by the Controller of Posts & Telecommunications, Honiara.

As of 1 January 1982, amateurs in the Solomon Islands may use the band 10.10 to 10.15 MHz on a non-interference basis.

In addition, the bands 18.068 to 18.168 MHz and 24.89 to 24.99 MHz will be made available to Solomon Islands amateurs on an exclusive basis once ITU transfer procedures were completed. However, the Controller promised to investigate the release of the two higher bands earlier but on a non-interference basis.

SIRS' application for H4 amateurs to use the band 7.1 to 7.3 MHz was ultimately successful, and now amateurs in two countries in Region 3 may use the top 200 kHz of 40 — Solomon Islands and New Zealand. Australian amateurs are permitted to operate 7.0 to 7.15 MHz and the WIA (Wireless Institute of Australia) is currently negotiating with the Australian Administration to increase the upper limit to 7.3 MHz.

SIRS has also received an undertaking from the Controller, P&T Honiara, that "mode band plans" (i.e., CW/SSB band splits) will not be enforced by government legislation.

The Solomon Islands Radio Society is a relatively new member of IARU Region 3 Association. The members are very active and have a Society club station — H44SI. □

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"The older a ham gets, the faster he could copy code as a boy."

●●●●●●●

B-24

Were you, your father, your uncle, other relative or someone you know associated with B-24 "Liberator" bomber groups stationed in England during World War II?

The Second Air Division Association is making every effort to locate anyone and everyone who served with these units during World War II. All personnel ever identified with B-24 groups and their fighter support groups (and associated support units) operating out of England in World War II are eligible to join our Association, which was organized in 1948 and presently has over 4,000 members.

Members enjoy the camaraderie of others who shared these same times and experiences, receive a quarterly news journal, and participate in an annual family-oriented reunion. (This year, the 24th such get-together will be held at San Antonio, Texas, 1-4 October.)

Please contact David Patterson, KB6UU, 28 Squire Court, Alamo, CA 94507.

— The Triple States RAC B-N-T □

FCC suspends license

The Private Radio Bureau of the FCC has suspended the amateur Extra Class operator license of Richard K. Eastman of Wichita Falls, Texas, for malicious interference. The Commission also is considering revocation of Eastman's Amateur Radio station license (N5FX).

Evidence collected by engineers from the FCC monitoring station in Powder Springs, Georgia indicated that on 30 and 31 May 1981, Eastman deliberately interfered with the radio communications of two other amateur operators: Gerard J. Morin, W1GM of Sanford, Maine, and Leonard R. Boucher, K4MME of Cantonment, Florida.

On 4 June 1981, the Commission suspended the licenses of these same operators, Morin and Boucher, for maliciously interfering with communications of the Maritime Mobile radio net, of which Eastman is a member. The FCC views deliberate interference, in any radio service, as a very serious violation.

Eastman had until 8 August to seek a hearing before an Administrative Law Judge. If he requests such a hearing, the effective date of the suspension and station license revocation will be postponed and Eastman will retain his operating privileges until the matter is decided by the judge. □

Register your repeater

Attention repeater enthusiasts. The deadline for registering your repeater for the next edition of the ARRL Repeater Directory is 1 November 1981. Please register your repeater on form CD 240, available for an SASE to insure the accuracy of the new edition. Repeaters must register annually to be included.

Send all information to ARRL Communications Department, 225 Main Street, Newington, CT 06111. □

Notice

Bill Grenfell, W4GF

James C. McKinney has been named by FCC to succeed Carlos Roberts as Chief of its private radio bureau. McKinney is the former Chief of the Commission's Field Operations Bureau. Amateur licensing and rule-making are included in the responsibilities of the Private Radio Bureau. □

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FEATURES

COLUMNS

Central California battles fire

Ed Gribi, WB6IZF
SEC Santa Clara Valley

On Sunday, 28 June, Bob Dryuff, W6POU—Section Communications Manager of the Santa Barbara section—called to say the U.S. Forest Service, Los Padres National Forest, was starting to battle the "Gamboa Fire" in the Ventana wilderness of southern Monterey County (California) and that there was a possible need of communications support. Several hours and several phone calls later, an official request was made (at 5:15 p.m.) from Forest Headquarters in Goleta, near Santa Barbara.

Bob Horton, W6MSG had been working on the W6LIO (28/83) repeater near King City, so he went home to nearby Paso Robles, packed up, and was on his way back to the fire camp by 8:30 p.m. Ernest Hammer, W6HWW joined him.

Walt, WD6EKR, and Ressie Del Conte, WD6EKQ; and Cliff Wiley, K6TEH had all made one tactical error—they had been on Field Day, gone home, unpacked and "crashed." The tactical error was in unpacking, but that was quickly rectified and they were soon on their way. By 11:15 p.m., W6MSG had his camper parked across the road from whre he had parked for many days during the Marble Cone fire in 1977. (QST, November 1977)

Meanwhile, amateurs in Santa Barbara had established a "Gamboa Fire Net" on 3985. At 11:45 p.m., they were joined on the air by the station set up by the amateurs who had arrived at Gamboa fire camp.

Initially, logistics traffic was passed from the fire camp to the Forest Headquarters at Goleta 150 miles distant via phone patches at the Santa Barbara end. By midafternoon on the 29th, the Santa Barbara group had a station operational at the Goleta headquarters. This worked OK on 75 meters, but on 40, interference to a Forest Service computer prevented that band from being used at their headquarters. A backup link of 2-meter

Van Lyons, WB6IIY, operating the Gamboa fire camp station. ***(Photo de Jerald Jecker, WA6KDH)***

repeaters was ready and tested, but was not required for that circuit.

The real action took place on 2 meters. The first need at the fire camp was for an intercom. Amateurs with handie-talkies took up positions at the heliport and the tool shed to provide links to the main amateur station at the logistics trailer in the command center. On Monday morning—the 29th—I established a VHF station at the Ranger District Headquarters at King City.

The first station consisted of a handie-talkie with external batteries, speaker mike, and twinlead J antenna. I was assigned to the conference room "where I would be out of the way." The first fire order from the fire camp came about 15 minutes later, and my "station" was soon moved to be close to the person processing the orders for equipment and supplies. Trudy Haversat, WB7EHM, and Bruce Brown, AC6O arrived in about an hour and soon had a more permanent station established on the porch just outside the logistics location.

Forest Service personnel initially were on the mike on both ends of this circuit. Within an hour, however, amateurs were handling the relaying of orders at both ends. About 110 of these fire orders were relayed over the amateur circuit in three and one-half days, along with a multitude of other informal traffic.

What's required to suppress a 3,000-acre fire in rugged, inaccessible wilderness? In this instance it took 1,300 people (mostly hand crews), helicopters, horses, mules and all kinds of supporting equipment and personnel. From our standpoint of traffic passed, putting out a fire means things like 1,500 sack lunches, groceries—from avocadoes to yogurt—in multi-case and 100 pound lots, mule shoes (really!), jet fuel, garbage trucks, vacuum trucks to empty the portable toilets, six brands of chewing tobacco, 10 bottles of Pepto-Bismol, 300 tubes of poison oak ointment, 200 boxes of moleskins, pistols and shells (to start backfires), cases of radio batteries, and crushed ice by the ton. At least three times, we relayed messages to King City asking them to get somebody to fix the jury-rigged phone lines.

Hand crew prepares to board helicopter for transport to fire lines.

The fire was contained on the morning of 1 July, but we were still going strong. Demobilization utilized Amateur Radio exclusively to relay release orders. We established a station at King City Airport for half a day to relay messages regarding charter aircraft schedules as personnel departed.

The Amateur Radio side ran quite smoothly for several reasons. First, there was a small cadre who had been on the Marble Cone fire. Secondly, nearly all those who participated had trained in ARES (Amateur Radio Emergency Service) nets, drills and public service activities. Third, there was a tremendous desire to be helpful throughout the Amateur Radio community. For example, Donald Harsin, K6DZT—Emergency Coordinator for San Luis Obispo County, our neighbor to the south—took care of keeping teams alerted and on the way for the basic manning of the fire camp station using the resources of the Santa Barbara section.

The primary communications circuit for most of the traffic during the entire period was the Williams Hill W6LIO repeater on 28/88. Besides traffic, it was our link to the south for planning personnel scheduling. To the north, our own "command net" for planning purposes was the W1PW repeater near Loma Prieta near San Jose, 146.925 output, 146.325 input—a repeater with a primary dedication to the Santa Clara Valley section ARES.

W1PW/R got a good workout during the "Gamboa Fire", but that turned out to be just the warmup. In the following days, it was used for red flag fire patrols for the California Department of Forestry, as our command net during our support of Red Cross shelters during Operation Medfly, and then the Blackhawk fire. □

Don't set friends up for robbery

Dave Fuseler, who is a former policeman and should know, reminds us all that these are days of plentiful household robberies and that thieves use all sorts of ways to discover safe places to burglarize.

He reminds up of Ken Winston's home burglary of last year after Ken thoughtlessly mentioned on the air that he was headed out of town.

"Not only should we be careful not to give our absence from the city away, but we should also be careful not to say on the air that Joe or Bill is out of town, and when talking to Joe or Bill a well-intentioned, innocuous phrase like, 'Have a nice trip,' or 'Call me when you get back from vacation,' could be the only tip-off that an alert scanner listener would need to check by Joe's or Bill's for burglary possibilities."

—Mecklenburg ARS News, NC □

Amateur Radio's part in Operation Medfly

Information submitted by Ed Gribi, WB6IZF

Operation Medfly has been a familiar news item for most Californians in recent months. As with so many other emergency situations, Amateur Radio operators have played a big part in this project, providing valuable communications during the spraying operations. Radio amateurs were especially needed once spraying began taking place during daylight hours, when fog is very dense over much of the Valley. As of 28 August, Ed Gribi, WB6IZF—Santa Clara Valley Section Emergency Coordinator—said the amateurs were still being used to make weather observation during the foggy morning hours.

Communications assistance was first requested at 11:15 (local time) on 12 July by Don Newhall of Red Cross. The assistance was needed between four proposed shelters, Red Cross Headquarters and Medfly Headquarters during the nighttime spraying program. A request was also made by Pete Ashen, Red Cross Division Disaster Services Director and Director of Medfly Shelter Project. He called key ARES (Amateur Radio Emergency Service) officials in the proposed shelter areas.

Forty-five minutes after the first request was made, the net convened on W1PW/R and planning began. At 1:45 p.m., Ben Wilbanks, KA6R was appointed as "Incident Coordinator," with full authority to coordinate communication efforts into four counties—at least six stations would be required.

The repeaters used during this period were: W1PW, 146.925/325; WB6OQS, 146.76/16; and WA2IBM, 145.19/144.59. Over 100 amateurs took part in this effort, so only those organizers who did outstanding jobs will be listed here: Ben Wilbanks, KA6R, Incident Coordinator; Mac McCollum, WB6LVD, District Emergency Coordinator, Santa Clara County; Steve Stuntz, K6FS, District Emergency Coordinator, San Mateo County; Ron Shannon, KD6BD, Emergency Coordinator, Santa Cruz County; and Woody Wodward, W6PLT, Emergency Coordinator, San Jose. These all had cooperation and aid from Bill Meyer, WB6KQU, Section Emergency Coordinator, East Bay; and Stu Langs, AA6SL, Emergency Coordinator, Fremont.

Pete Ashen, Disaster Services Director, Red Cross (San Francisco) at the San Jose Red Cross Headquarters, made the following comment on 16 July: "The amateurs did a super good job and provided effective accurate communications." □

Chart of Amateur Radio communications support requirements during Operation Medfly Shelter Project in July, 1981.

On the left is Professor S.G. Wang, an advisor for Beijing Post Tele-Communicatons Institute accepting the first copy of the handbooks. On the right is Thomas Wong, VE7BC. (For more information on VE7BC, see story.)

Prospects good in BY-land

Help is on the way to the amateurs in BY-land, China. Eighteen and one-half tons of ARRL League publications — 28,500 new books in all — have been shipped to China. The shipment was a goodwill gesture, the gift of U.S. and Canadian League members.

Thomas Wong, VE7BC — a regular traveler into China who is involved in world trade — has been helping amateurs for the past seven years. Prospects for re-establishment of Amateur Radio in China are better than ever; for the first time since 1966, amateur club stations are now being given permission to put up antennas for SWL. □

Sympathy

(continued from page 1)

for word of a friend or loved one was lessened.

The amateurs who participated in this emergency net are as follows: Beryl Masters, WB0EJJ; Donald Warkentien, WB0NVO; Jerald Pemberton, KA0GJS; Alan Boyer, WA0UDS; Gerard Beaulieu, WA0PFS; Bill Norton, Jr., WB0YBC; Camille Norton, WB0YBA; N0CLO; Marvin Casteel, WB0YBP; Lloyd Collins, K0MAT; Jim Patterson, W0QIZ; Bennie Bost, WA0KKN; KB0XU; Paul Passman, WB0BBC; Richard Carter, WB0IZY; Jerome Chamberlin, WA0JRJ; Stanley Nelson, KD0G; KB0SP; N0CKU; Bob Sanders, W0KKC; Wilbur Goll, W0DEL; John Lawrence, Jr., N0AAP; Steve Lufcy, WB0LFY; KB0WD; Frank Minard, WB0YQG; Jim Bair, N0AJI; Bob Keplinger, N0RK; KC0CL; and Larry Wilson, K0RWL; net control at the station of K0RWL. □

W6VIO

(continued from page 1)

signals were retransmitted on another ATV band to various parts of Southern California.

George Morris, W6ABW was the coordinator of the event. Jack Patzold, WB6TXG; Tom O'Hara, W6ORG; and Jim Lumsden, WA6MYJ were responsible for the ATV activity. In the next issue of **Worldradio**, we'll have a complete list of the participants and the contacts they made. □

Contact Worldradio for hamfest prizes.

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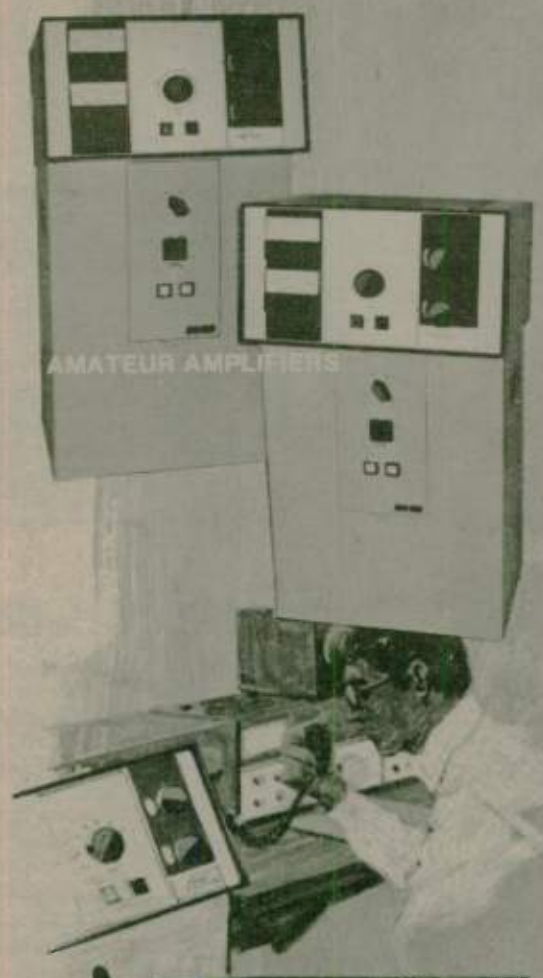

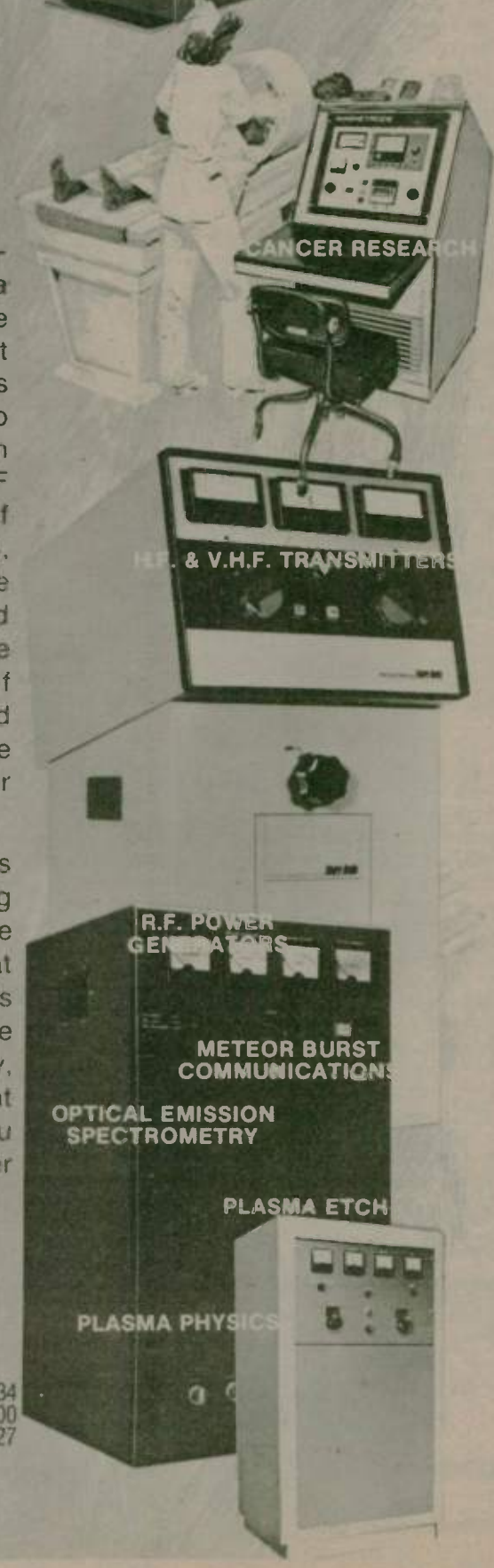

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Couger wins award

Fred Pearson, N6DEL

The 14th of June was a very special day for Amateur Radio in Santa Maria, California. The Satellite Amateur Radio Club presented its President's Award to Bob Couger, W6KPS. This is the club's first and only such award given for outstanding achievement, in recognition of continuing dedication to repeater expansion and technical innovation. It gives recognition for special service to the Amateur Radio community.

SATELLITE AMATEUR RADIO CLUB Inc

JUNE 14, 1981

THE SATELLITE AMATEUR RADIO CLUB
IS PLEASE TO PRESENT ITS
PRESIDENT'S AWARD FOR OUTSTANDING
ACHIEVEMENT TO

ROBERT COUGER, W6KPS

IN RECOGNITION OF HIS CONTINUING
DEDICATION TO REPEATER
EXPANSION AND TECHNICAL INNOVATION
IN SERVICE TO THE AMATEUR
COMMUNITY.

LON GOINS, KA6ADP
PRESIDENT

Bob is a highly regarded, active participant of the Western Amateur Linking Association. The association's repeater accomplishments are numerous. West Coast amateurs tell of full coverage linking from Canada to Mexico. The goal for 1981 is complete coverage into the San Francisco area. Where else can you have reliable long-range communications with a hand-held unit? Association machines with 10- and 6-meter capability further enhance the versatility of the repeaters.

Several years ago, Bob changed his QTH to Santa Maria to apply his engineering expertise to space technology

Bob Couger, W6KPS (left) is awarded the Satellite Amateur Radio Club President's Award by Club President Lon Goins, KA6ADP.

projects. He was instrumental in establishing the first area repeater — WR6AHZ or A-Hertz. Bob is now the owner of this machine (W6KPS/RPT), which has linking to the McKittrick repeater, autopatch and 6-meter capability.

Following these accomplishments, Bob designed and helped construct two machines for mountain top operation. These were "state of the art" installations which included: first repeater to implement reverse autopatch, superb audio quality, excellent coverage (1,200 feet above town), autopatch, and in-band linking to any 2-meter repeater in its range via dial-up control.

Then came the challenge of the Five Cities area repeater. This machine has autopatch and 10-meter capability.

Coming off the design board and emerging in the lab is what will be the Cambria machine.

The amateur community has assisted in financing construction and maintenance of these projects. However, Bob arranged much of the fianancing from personal funds and through Santa Maria Amateur Radio Emergency Service. Sometimes, creativity and "state of the art" innovative design is hampered by the limits imposed by fund-raising committees. The results often speak for themselves.

Hundreds of Amateur Radio enthusiasts had gathered for the presentation of the award to W6KPS. The barbecue and swapmeet were built around this special "thank you" for outstanding achievement. □

Ahead of his time

Lee DeForest—the inventor of the first electron tube triode, the "Audion"—was brought to trial on charges of using the mails to defraud when he tried to sell stock in his Radio Telephone Company. The district attorney at that time (1913) called the company a worthless enterprise.

Lee DeForest's friends asked what possible use the radiotelephone could be, as it could not compare with the wire phone, and could not cover the distances that the wireless telegraph could cover. What was the use of it anyway?
—RTTY News, Ontario, Canada □

YLRL Scholarship winner

Winner of the 1981 YLRL Scholarship is Clara Muller, KA2DYC of Amsterdam, New York. Clara is a member of a five-ham family! Her mother is Elsie, KA2ESQ; father is Philip, KA2DYB; and two sisters are Tina, KA2DYD, and Sandra, KA2ICP.

Clara has just turned 18 years old and will be studying Electrical Engineering at the Rochester Institute of Technology. She got her Novice license in January of 1979 and went to General before the year was out.

The YLRL scholarship is offered each year to a YL who is studying Electrical Engineering or associated science. The award is currently $300. Applications are accepted in May. For further information, write YLRL Scholarship Program, c/o 2012 Rockingham Street, McLean, VA 22101. □

Special Events

Treasure Island

The Garden State Amateur Radio Association (W2GSA) of Fair Haven, New Jersey will be operating the 2nd Annual "Treasure Island mini-DXpedition." The dates are 10 and 11 October 1981. The times are from 1700 UTC Saturday to 1700 UTC Sunday.

The frequencies are 7.235, 14.285 and 28.625 phone and 14.030 CW. Treasure Island is located in the Manasquan River and is a small island—about 7½ acres.

A certificate is available for $1 including postage. QSL manager is Lucien Eloe, WA2SSH, 7 Carol Ave., Neptune, NJ 07753. □

Thunderbolt-Hotfoot

The Southern Sierra Amateur Radio Society of Tehachapi, California, will be conducting a simultaneous dual-site expedition under the call K6RL from Badwater, Death Valley, California and the summit of Mount Whitney, California during the Columbus Day holiday weekend, 10-12 October 1981.

Three Whitney stations and provisions will be backpacked in and will operate from the summit of the 14,496-foot peak, the highest point in the lower 48. Operating time will be from 1900 UTC 10 October to 0100 UTC 12 October 1981. Modes of operation are CW QRP at or near 21.105 or 28.105 and 7.105 MHz. Two CW stations will be operating on different bands. Two-meter FM beamed to major metropolitan areas around and near California will be on 146.550 MHx, simplex.

The Badwater stations will operate from the floor of Death Valley—the lowest place in the western hemisphere, 280 feet below sea level—from 1900 UTC 10 October to 1900 UTC 11 October on CW ± 21.110 and 7.110 MHz.

To receive this beautiful unfolded 9-by-11-inch commemorative certificate confirming your QSO, send your QSL and $1 to help with first class postage, etc., to: SSARS, Rt. 2 Box 338, Tehachapi, CA 93561. □

LX DXpedition

The Wiesbaden Amateur Radio Club is pleased to announce that it will sponsor its second Contest DXpedition to Luxembourg.

The Contest DXpedition will be conducted on the weekend of 24-25 October in conjunction with the CQ Worldwide Phone DX Contest. The call sign will be DA1WA/LX. Operations will be conducted on all bands 10 meters to 80 meters.

QSL Manager for stateside QSLs may be sent along with a stamped, self-addressed envelope to: **Steve Hutchins, Box 4573, APO New York 09109.**

Other QSLs may be sent to DSØLC whose address is: **Dr. Hugo Jakobljevich, Am Weinberg 10, 6200 Wiesbaden-Auringen, WEST GERMANY.**

For further information, please contact Steve at the above address or **Claude R. Matchette, DA1PN/WBJCEA**, at HHC, V Corps (G-2), APO New York 09079. □

Africa/California

Paul Turkheimer, WA6NKL

The echo of last spring's Operation Ballarat had barely begun to fade when the air filled with talk about Project Johannesburg. Scheduled for 23-25 October 1981, the same group of radio amateurs that did such an outstanding job at Ballarat, California — the Los Angeles Air Force Station Military Affiliate Radio System (MARS) Base Support Team — is undertaking this new project. This local DXpedition will link the old mining town of Johannesburg, located at the very northern part of California's Mojave desert, with its world-famous namesake, located in the Republic of South Africa. The entire amateur community, worldwide, is invited to contact both Johannesburgs and try for a certificate.

On Friday, 23 October, the advance contingent will arrive to establish communications headquarters at the foot of an almost century-old headframe, towering over an old gold mine at Johannesburg, California. The headframe will sport a three-element triband beam, definitely not an accessory planned by its builder late last century. Three airline miles away, on the top of the 5000-foot Government Peak, with an unobstructed 50 mile view in all directions, two tribanders will be erected, establishing a second station complex. A solar-powered VHF attache case repeater will link the two sites. Although the gracious residents of this sparsely populated town of about 100, (formerly 2,000), have offered material and accomodations help, it was declined. The group's ground rules are complete self-sufficiency during the two-day operation.

As at Ballarat, three KWM-2A's and 30LI Linears will be the primary equipment. Power is supplied by one 1.5kw and two 5kw gasoline driven generators. In addition to the beams, several dipoles and Vee antennas will be erected to permit redundancy and multiple frequency operation. Special care will be exercised to preclude the minor mishaps experienced at Ballarat. This time, coax connectors will be covered and kept dirt free to eliminate shorts at the linear, and the beams will be assembled and checked out prior to the weekend to preclude missing parts.

Communications activities are planned to begin at 2000 UTC 23 October and continue without interruption till 2000 UTC 25 October at frequencies of 14.200 to 14.350 MHz, 21.275 to 21.400 MHz, and 28.500 to 28.700 MHz, SSB. CW frequencies will be monitored; however, CW operation will be by request only. The call sign for Johannesburg, California is WA6NKL portable.

The group organizing in South Africa is the 450-member South African Radio League (SARL). The project manager is Hans Van De Groenendaal, ZS6AKV.

A certificate will be sent to those radio amateurs, worldwide, who can confirm contacts with both Johannesburgs. Specifically, you must contact ZS6TJ, the SARL club station, one other ZS6 and the Johannesburg, California station and send date, time, signal report and station contacted along with one IRC to Postmaster, Johannesburg, CA 93528, USA. Allow several weeks for the certificate to reach you. □

What a day!

DX Widow: All you ever think about are your radios in the shack! DX, DX, DX. That's all you care about. Why I'll bet any money that you can't even remember our wedding day.

DXer: I most certainly do! I could never forget that day. It was one of the best days of my life. I worked a 6WB, a 9K2, and 9U5JM!!! □

•DXpeditions•

Largest in the South

The Colquitt County Ham Radio Society will be operating club station WD4KOW from the site of the 4th annual Sunbelt Agricultural Exposition on 13, 14 and 15 October 1981. The hours of operation will be 0900 to 1600 EDST each day.

This Sunbelt Expo is held annually at Spence Field Airbase, located near Moultrie, Georgia, and is the largest agricultural show in the South. This event draws over 200,000 visitors from all over the United States and foreign countries.

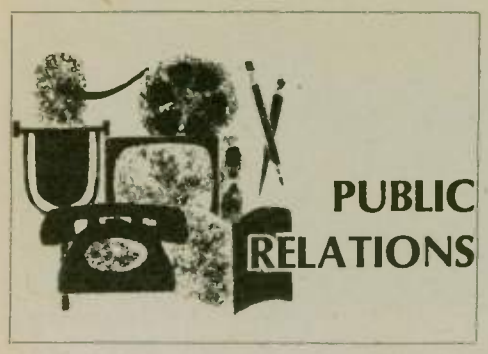
Operations will be mostly on 40 and 20 meters around 7.250 and 14.300 MHz, with some operations in the other HF bands. The members will also be listening for visiting amateurs on the local repeater 146.19/79. Visiting amateurs are invited to visit the amateur booth at the Expo and operate the amateur station.

A special QSL card is available for those making contact during this event and desiring one. □

New world record

Thrust Cars, Ltd. from the Isle of Wight in England will try to break the world land speed record of 650 miles during the period of 28 September through 25 October. The event is to take place on

(*please turn to page 20*)



RCA appoints new director

Fred M. Link, President of The Radio Club of America, Inc., and the Executive Committee of the club have announced the appointment of Willard D. Andrews, WB2LCF, of Franklin Lakes, New Jersey, as a member of the Board of Directors of the club to fill the unexpired term of Dr. Henri Gaston Busignies, who passed away in France on 20 June 1981. Busignies ws Senior Vice-President and Chief Scientist of ITT before his retirement in 1975.

Mr. Andrews is president of the Latin American division of Becton, Dickinson and Company, a "Fortune 500" manufacturer of devices and instruments for the Health Care Industry with whom he has been associated since 1950.

Andrews' interest in radio started in World War II when he was trained as a radio operator and radio technician during service with the U.S. Army Air Corps.

He is an ardent Amateur Radio enthusiast who was elected to membership in The Radio Club of America based on his contributions to international good will in projects with radio amateurs and radio societies in South America. He is a member of the American Radio Relay League (ARRL) from which he has received several operating awards, including the prestigious DXCC for confirmed two-way radio contacts with almost 200 countries. He is also a member of the Society of Wireless Pioneers and several radio clubs in North Jersey.

The Radio Club of America is the oldest in the world, having been founded in 1909. It has more than 1,000 members from many countries and its membership includes virtually every major contributor to the art and science of radio who are still living in the world today.

Each year the club makes a munber of scholarship awards to assist in the education of promising students in the fields of radio and electronics. It also makes annual awards to leaders in the communications industry. This year the club will name a new award for Dr. Busignies which will be added to the annual Armstrong Award, Sarnoff Citation, Du Mont Citation, Pioneer Citation and the Batcher Award. □

Dignitaries visit Field Day site

Peter Cantara, KA1BBI

The Nashua Area Radio Club of Nashua, New Hampshire invited representatives from several groups involved in the city's Emergency Preparedness Plan, as well as several dignitaries, to visit their 1981 Field Day site and view the exercise.

Visitors included New Hampshire Congressman Judd Gregg, Nashua Mayor Maurice Arel, and representatives from Nashua Memorial Hospital, St. Joseph Hospital, Nashua Red Cross, the Nashua Aldermanic Board, the American Ambulance Service, the Nashua Police Department, the Nashua Fire Department, and Nashua REACT.

Each guest recieved a folder which gave a brief description of Field Day. The folder also described the club's emergency communications capabilities. The guests were then escorted through the Field Day site by club members, who stressed the emergency preparedness aspect of Field Day. Highlighting the tour was a phone call made by the fire chief to Fire Alarm Headquarters via the 147.045 repeater phone patch.

All of the guests were impressed with the Field Day set-up. Mayor Arel said he was glad to know that such a group of skilled operators was available to provide communications if a disaster were to strike. □

Not for YLs only

Bob McGarvey, WB2EVF

No rundown of organized system operation in the Amateur Radio Service would be complete without recognition of the YL International Single Sideband Communication System (YLISSB).

Founded in 1963 by Miss V. Mayree Tallman, K4ICA of Miami, Florida, the YL System long ago outgrew its original membership requirement that applicants be YLs. Thousands of OMs have become active members. Today there are close to 15,000 members—on every continent and in most countries of the world.

The original concept of making available international emergency communications by means of a system—not a net, V. Mayree will assure you—has not been lost over the years. And promotion of international good will and fellowship through association by radio has been a continuing project of the YLISSB.

Home frequency is 14.332 (sometimes 14.333 because of QRM) on the 20-meter phone band, and there are auxiliary systems on 75, 40, 15, and 10-meter phone. There's even a CW operation for those who prefer to do their talking with a key.

You don't have to be a member to participate in the system operation, but you do have to be to participate in the awards program which offers many really beautiful trophies.

If you will send a self-addressed stamped #10 envelope to Johnny Madden, WA1KVC, 347 Western Avenue, Lynn, MA 01904, he'll send you a brochure explaining all about the system and how you can become a member. Johnny is information officer.

–Home News, NJ □

Hundreds flock to Ham Heaven

Lenore Jensen, W6NAZ

The world-famous Visitor's Day at the W6AM Rhombic Farm of (even more famous) Don Wallace logged in 312 guests, coming from as far as Belgium to enjoy 500 doughnuts and a close-up look at the 24 acres of Ham Heaven on 20 June.

Radio amateurs in Southern California flocked for a chance to use the various transmitters which have helped confirm at least 362 countries. One choice contact was with Tom Christian, VR6TC, on Pitcairn Island, keeping the sked arranged by Ralph Cabanillas, W6IL, letting many of the visitors exchange greetings with Tom. The 61 poles, 10 of which are 140 feet high, assured a powerful antenna choice.

Irv Emig, W6GC, and James Neiger, N6TJ, were the "rig hosts."

The Palos Verdes Amateur Radio Club again handled parking efficiently, using poles, flags and signs to bring visitors to the hilltop overlooking the blue Pacific, two miles away.

Don once again was the affable host to this mini-convention which is becoming a Palos Verdes tradition. Surely someone will soon be able to convince him to put down his long radio career into a book — his anecdotes are priceless examples of the colorful development of Amateur Radio.

Greedy-eyed developers yearn to get their bulldozers on these prime acres which are surrounded by condos. We wish Don well in preserving this Radio Ranch for the far corners of the earth "to hear." To the eyes of amateurs, it's the prettiest sight around! □

Wendy Hall, KA6MZD and "copy cat" Alistaire. Wendy is a volunteer with W6RO aboard the *Queen Mary*. The W6RO QSL card in background is her favorite card.

Youngsters find radio exciting

Dick Baron, WA6FTD

"Ooh, neat, a CB!," is a universal and unison response uttered by elementary school children when they view 2-meter equipment for the first time during Amateur Radio demonstrations I have often presented in various schools within the Rio Linda Union School District in suburban Sacramento County, California.

Introducing the world of Amateur Radio to children can be a rewarding and exciting experience. As a group, elementary school age students are fascinated and highly motivated when exposed to the wonders of radio communication.. A general overview of the Amateur Radio service — modes, bands, simple electronic principles, propagation and operating procedures — are concepts which children can and do assimilate readily. The frosting on the cake, of course, are on-the-air QSOs. At this point, each student becomes a "ham," literally and figuratively as most — if not all — queue up to take a turn at the microphone. Timidity assuredly vanishes.

Such was the case during my most recent demonstration in a third grade classroom at the W.A. Allison School — the school at which I am currently the principal. As a culminating activity to the demonstration, a contact was established with Wendy Hall, KA6MZD on 14.2 MHz. The contact proved to be fruitful for the children, as Wendy possesses those attributes of a dedicated amateur. She was most gracious in listening to the children as they told about themselves and in responding to the myriad questions posed to her. Several days following the QSO, and certainly a highlight to their experience, a letter arrived which was addressed to the class. Included were QSL cards for each of the children. Elation was at its peak when the letter was read and the cards were distributed.

Amateur Radio demonstrations in elementary school classrooms can contribute to an understanding and an appreciation of the avocation we share as amateurs. I would recommend to amateurs who are so inclined, to consider presenting demonstrations in schools within their communities. By sharing your talents and knowledge, you not only provide a public service, but you would be enhancing the educational experiences of the children. Many teachers would welcome this type of community resource in their classrooms.

Lucius Jackson responds to a question posed by Wendy, KA6MZD. Jerry Webster (center) and Jason Edwards (right) anticipate their turns at the mike.

Allison Corkum chats with Wendy, KA6MZD, as Kevin Shelton (center) and Jim Roehrig (right) await their turns at the mike.

Are Amateur Radio demonstrations instructional and rewarding? From my point of view, they are. When I have occasion to return to a classroom for follow-up activities, I now hear the children exclaim, universally and in unison, "Ooh, neat, a 2-meter rig!"

Swiss visitor

Several members of the San Francisco Radio Club (SFRC) met Roland Heiz, HB9BTU at the ARRL convention in Fresno, California. The following day, Roland joined Bill, K9AT, Larry, WB9LOZ, and Dave, WA6UHA, for a trip to Kings Canyon National Park before continuing on his own to Sequoia and Yosemite. He planned to visit in San Francisco two weeks later.

Less than a week later, Bill received a call from Roland asking if he could spend the night. His backpack had been stolen. Gone with it were all his camping equipment, his clothes, his handie-talkie (an IC-2AT), an AM/FM/SW radio, his passport and all of his traveler's cheques.

The traveler's cheques were quickly replaced (Karl Malden is right!) and he was able to get a new passport through the Swiss Consulate in San Francisco. After shopping for new clothes, Bill and Larry showed him around the City, including all the normal sights (he got a real kick out of the cable cars!), gave him a tour of KSFX—where Larry works, took him on a trip to the top of Twin Peaks and Mt. San Bruno, a visit to Berkeley, and a trip down to HRO (Ham Radio Outlet), where he met several SFRC members.

Bill Green, W6BYS made his station available to Roland for two contacts back to Switzerland, and also took him to the airport for his return flight to Boston. Despite his earlier misfortune, his week's stay in San Francisco was a pleasant one.
—*Nuts and Volts, SFRC, CA*

DON'T FORGET . . .
Include first and last names with call signs.

HIGHLIGHTS

Bill Grenfell, W4GF

Private Radio Bureau Chief Carlos Roberts will leave FCC in early September, he announced on 20 July 1981. The present chief of the Field Operations Bureau of FCC, James McKinney, has been considered as a likely successor if Roberts should resign.

•

Congressman Dannemeyer's H.R. 2203 bill is being redrafted. H.R. 2203 would authorize FCC to use amateur volunteers to monitor for violations of regulation by amateur stations, and to administer examinations for Novice licenses. The bill would also exempt amateur station transmissions from possible protection by Section 605 of the Communications Act, for such monitoring purposes. Presently, modifications are being worked into the language to hold off on proposed use of volunteers to monitor citizens band transmissions until some experience with amateur monitoring has been gathered. Expansion of the volunteer examiner system to include supervision of more than the Novice Class exams is being considered. Provision for sanctions against volunteers who get out of line is also planned. It is not likely the revised version of the bill will be available until after the August recess of the House.

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A rule providing for a codeless amateur license has been drafted but "is not likely to see the light of day," according to a knowledgeable FCC staff member!

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The suspension and revocation of the operator and station licenses of Gerald Morin, W1GM and Leonard Boucher, K4MME will be the subject of a hearing proceeding before an Adminstrative Law Judge. Both licensees requested a hearing. The hearing will be at Washington, D.C., but a date had not been set at the time this was written. Morin and Boucher may continue to operate until their case is decided. They are accused of having "...wilfully interfered with the radio operation of other operators, in violation of Sections 97.78 and/or 97.125 of the Commission's Rules during the period of August, 1980 through 4 June 1981."

•

Senator Goldwater's S. 929 bill was sent to the Senate floor during the week of 13-18 July. This means it may have been approved by vote of the Senate by the time you read this. However, the usual August recess may intervene before action on the bill is taken. Besides the volunteer examining and monitoring provision such as in H.R. 2203, the Senator's bill would include: requiring that audio and visual equipment susceptibility to RF be reduced; sale of RF transmitters, kits and amplifiers be limited to persons licensed to operate them; license terms be changed from five to 10 years; and that all amateur transmissions be specifically free from any requirement that they be kept secret.

•

The ITU (International Telecommunication Union) rebuked FCC for being unable to locate the illegal anti-Castro broadcast station operating in the 40-meter amateur band! The telegram, sent to FCC by the ITU during mid-July, referred to a station operated in the Miami, Florida area by one Jose Gonzalez, which had already been tracked down by FCC and shut down twice! The charges against Gonzalez were dismissed 14 April by U.S. Attorney A.W. Wampler just before his trial was to begin. At least one Miami newspaper reports that the U.S. Attorney will not be reappointed. ITU said it was assigning Canada, Colombia, Cuba, Mexico and Venezuela to help find the station. The telegram was referred by FCC to the U.S. Department of State, which is reported to have reacted with some considerable indignation!

•

The amendments to the Commercial Radio Operators Rules, Part 13, deleting the Radiotelephone First Class license, are published in the Federal Register, 8 July 1981. They became effective 7 August 1981. Further information may be obtained from F.O.B. Regional Services, FCC, Washington, D.C. 20554.

•

Irate complaints about the proposed Plain Language Rules going to Congressmen are sometimes so poorly expressed or so misguided that Congressional staff personnel are unable to make out the basis for the complaint. Thus FCC is receiving a number of inquiries from the Hill asking what all the fuss is about! It should be obvious that calm care should be used when writing to your Congressman. Otherwise, the effort is wasted.

Comments to FCC on the Plain Language Rules, Docket 80-729, were due by 21 August with reply comments on or before 21 October 1981. They should be addressed to FCC, Washington, D.C. 20554.

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The proposed Spread Spectrum Rules are identified by Docket No. FCC 81-290 for the Amateur Service in the 50, 144 and 220 MHz bands and by Docket No. FCC 81-291 for Radiolocation in the 420-450 MHz amateur band.

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A petition to allow Extra Class licensees to request specific call signs was denied by FCC's Carlos Roberts, Chief of the Private Radio Bureau. He pointed out that the issue had been thoroughly discussed and decided in Docket 21135 and that the five petitioners had raised no new arguments.

•

A petition to grandfather Advanced amateur, commercial 'phone first license holders to Extra Class amateur without exam was denied by Roberts as "redundant and frivolous;" the issue had been decided earlier, when "grandfather" clauses were abolished. □

FCC releases new working paper

The FCC has released a new working paper, the sixth in a series, entitled "Deregulating Personal and Amateur Radio," which calls for greater flexibility than now exists in personal radio regulation.

The Commission's personal radio category has two main branches — Amateur Radio and the personal radio services (PRS). The working paper suggests deregulation or liberalization of restrictions that may inhibit new technologies, such as spread spectrum modulation and trunking, in both the PRS and the Amateur Service; certain restrictions on amateur repeater operations; certain restrictions on amateur third-party messages; mandatory technical standards for PRS equipment; and CB (citizens band) licensing.

Moreover, it suggests a regulatory approach for 900 MHz personal radio based solely on in-band and out-of-band power emission limits. This approach might permit simultaneous use in the new band of such technologies as conventional voice, computer-to-computer links, electronic mail and video. An improved personal radio service along these lines might allow some users, particularly in non-urban areas, to substitute personal radio for business landmobile, mobile telephones, rural radiotelephones and/or VHF marine radio.

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The paper also suggests systematic study of means to strengthen Amateur Radio's technological orientation, consideration of a code-free VHF amateur license for technically qualified applicants, expanded HF operating privileges for Technician Class amateurs and allowing some amateur operations on 27 and 900 MHz PRS frequencies. Finally, the authors recommend that recreational and hobby uses for personal radio have explicit recognition in the rules.

A limited number of copies are available from the FCC's Office of Public Affairs, Room 207, 1919 M St. NW, Washington, D.C. 20554. Copies may be purchased from Downtown Copy Center, 1114-21st St. NW, Washington, D.C. 20037; 202-452-1422. Price for this 78-page paper is $7.02 (9 cents per page).

Try this for a lullaby

Ron Geppert, K0FTB

As many of you know, small harmonics sleep very soundly as long as the mobile is in motion, but try to stop for gas or traffic and chances are they will be awake. I have found that leaving the broadcast radio on and opening the squelch on the 2-meter rig to a comfortable level masks the changes in noise created by stopping, thus letting the little one continue to sleep. Be sure to choose an unused frequency as an unwanted call could spoil the whole charade.

— Mankato Area RC, MN ☐

Another coincidence

Recently Frank Andrei, W3OEL heard a "G" station in QSO with a W3. Frank called the "G" and asked him to "hold" the W3 for him. The G said he couldn't handle third-party traffic. Frank said he would contact the W3 direct and give him the traffic. The G told Frank that the W3 was in Delaware. That's where Frank wanted his traffic to go, anyway. Frank and the W3 got together and took Frank's traffic. It turned out that the Delaware traffic was going to the next door neighbor of the W3!

—Sine of the Times, Indiana, PA ☐

Amateur Radio Call Signs

Amateur Radio operators have continually expressed an interest in what are the latest call signs which have been systematically assigned. To further our policy of making the new call sign assignment system public a list of the last call sign issued, by group, for each radio district and non-contiguous area is published. The following is a list of the last call signs assigned as of 1 July 1981.

Radio District	Group A	Group B	Group C	Group D
0	KK0X	KC0EP	N0CVB	KA0LUS
1	KE1L	KA1SU	N1BQI	KA1HKJ
2	KN2Y	KC2DS	N2CRZ	KA2NDT
3	KE3H	KB3SN	N3CGV	KA3HUO
4	NO4Y	KD4QW	N4FDI	KA4VHI
5	KS5L	KC5TY	N5DOQ	KA5LZB
6	NC6T	KE6CP	N6EFB	KA6QKT
7	KK7E	KC7DU	N7CYH	KA7IUS
8	KO8O	KC8JM	N8CZY	KA8NON
9	KG9U	KC9CU	N9CLM	KA9LKI
N. Mariana Is.	AH0A	AH0AA	KH0AC	WH0AAE
Guam	AH2L	AH2AK	KH2AR	WH2ACX
Johnston Is.			KH3AB	WH3AAB
Midway Is.			KH4AC	WH4AAF
Hawaii	NH6L	AH6DC	KH6OA	WH6AQA
Amer. Samoa	AH8A	AH8AB	KH8AA	WH8AAL
Wake Wilkes Peale				WH9AAA
Alaska	NL7Y	AL7CS	KL7ON	WL7ARG
Virgin Is.	KP2B	KP2AF	NP2AK	WP2ACP
Puerto Rico	NP4F	KP4DE	NP4CX	WP4BXQ

Converter IRL – FSK 500, FSK 1000 KANTRONICS – Field Day 2, Mini-Reader CURTIS – KB4900

MACROTRONICS – M80, M83, Terminall, M800, M830, Ritty Riter, CA650, TA650, A6500, FSD1, M65, M650, CM650, TM650, HAL DS3100ASR, CT2100, DS2050KSR, ESM914, TR930, MPI88G, ST6000, ST5000 ROBOT – 800 Superterminal, SSTV Scan

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Call or Write!

OFF THE AIR

Rebuttal of RM-3867

It is with a good deal of reluctance that I must disagree with Bill Welsh on his RM-3867. (See article in August issue, page 30.) Bill was one of my early Novice contacts (as WD4FZR) and it was from him I got my very first award. In spite of this, I feel compelled to list my reasons for opposing RM-3867.

1) A quick look at 97.1 of the FCC rules and regulations states basically that Amateur Radio exists for the purpose of providing emergency communications, to improve the state of the art, the advancement of skills, the expansion of the reservoir of trained radio operators, and enhancement of international good will. The new allocation system would do little, if anything, to help any of these.

In cases of regional or national emergencies, there are many amateurs of General Class who are instrumental in relaying messages. Now if you cut 20 percent of their operating frequencies away, you force them to work closer together. The bands are already overcrowded without these people QRMing themselves into total ineffectiveness. Another segment that will be hurt are the nets. Since most of these nets need a large number of amateurs to work, they would most likely be forced to meet in the General portion of the band. Even if they meet in the "new" Advanced portion of the band, they would still have less room than they had as Generals. QRM again.

2) Amateur Radio is not sponsored by radio amateurs. It is now sponsored by the taxpayers at large. Since we no longer pay license fees, this means your neighbor paid just as much of the cost of producing your ticket as you did. For this reason, I feel we owe the public the best possible emergency and traffic handling we can provide. But cutting the General and Advanced Class by 20 percent will not serve this purpose.

3) Contests could become a thing of the past. There is already such overcrowding on the bands that during the contest, most non-contesters go QRT. Now cut 20 percent of the band privileges, and you can see what is going to happen.

4) As for the advancement of the art, anyone can experiment and work on any project he desires regardless of class. The new bill will do nothing to improve this.

5) Most of the Extra Class ticket holders didn't go though the tremendous work involved just for the privilege of a couple of new frequencies. The Extra Class ticket shows you are a rare type of person. It is an elite group of people who won't settle for second best, and who shoot for the top instead of settling for less. Not all people have the ability to get this highest class license. This in no way means they are inferior operators. Many don't have the time to invest in studies due to work or family obligations. Others can't beat the 20 wpm hurdle or just can't absorb enough theory to pass the Extra exam. Yet many of these same amateurs are excellent operators and it would be counter-productive if they were not able to help as amateurs because of a loss of frequency privileges. It is going to be a very hard pill for many amateurs to swallow when they will have to invest the time and effort plus take time off from work so they can go from General to Advanced and lose 40 percent of the operating frequencies.

I'm afraid the long-term effects of this bill would be negative for all amateurs. The relatively quiet Extra Class subbands may lead the FCC to believe there are too many frequencies allocated to radio amateurs. Please, write to the FCC and give them your input on this bill.

73 de
DOUG ZEEFF, N4EHO
Venice, Florida

Comments on petition

21 August 1981

Federal Communications Commission
1919 M Street NW
Washington, D.C. 20554

Mr. Commissioner:

It has come to my attention that a petition was recently presented to the Federal Communications Commission by Mr. Bill Welsh (Amateur Radio Service W6DDB). This petition, RM-3867, proposes the reduction of General and Advanced Class Amateur Radio license privileges in order to ". . . induce most amateurs to upgrade past the General Class license."[1] It also asks for the allocation of the 14.1 to 14.15 megahertz segment of the 20-meter band to Novice Class licensees.

I think the reduction of General and Advanced Class operating privileges is absurd. While it is true that many people do not upgrade past these two, the reason for this is not solely because they are satisfied with their privileges — the main reason, I believe, is that many amateurs (myself included) cannot grasp or absorb the technical knowledge needed to obtain the Extra (or even Advanced) Class license. Indeed, why would anyone be satisfied with less than 100 percent of the total band and mode allocations available if they were capable of achieving it? Myself being a General, I realize this dilemma. I am pleased with my allocations but certainly would appreciate more. I worked very hard at obtaining my present privileges and do not wish to see them diminish! I'm sure that most amateurs would relish the Extra Class license but do not hold or have the capacity to gain the knowledge required. To lessen their present privileges to try to "induce" them to acquire the license is not realistic. I just cannot see Mr. Welsh's view.

However, Mr. Welsh's idea of allocating a portion of the 14 megahertz band to Novices is a good one. I remember when I was a Novice. At the time the 28 and 21 megahertz bands were relatively inactive, while the 14 megahertz band was wide open. Giving them frequencies on that band would give them a chance to experience different kinds of propagation.

That's what Amateur Radio is about: not trying to get the highest class of operation; not trying to gain 100 percent of the frequency and mode privileges; but experimenting with communications under varying conditions, developing new modes of and technologies for communication, enhancing the good will between amateurs worldwide, and providing public service. How will the reduction of General and Advanced Class operating privileges serve these principles?

Sincerely,
ADAM L. BUCHSBAUM, KA2JQH
Westfield, New Jersey

[1]**Worldradio,** August 1981, p. 3.

FCC 'has a heart'

I want to share with the "world" my recent trip to the FCC office at Tampa, Florida on 16 July. I went for the Extra CW certification (primarily because I knew I would flunk the theory nowadays). Well, we had car trouble on the way and didn't get there till almost 15 minutes late.

I hobbled in (I'm disabled a bit) and I saw everyone seated in their exam chairs (shaking, fainting, crying, groaning, etc.) I thought all was lost! But the office staff stopped the examiner just in time and let me squeeze in! I passed! She (the examiner) was very kind. It may not happen to everyone, but Uncle has a heart!

BARRY G. YODER, W8SJO
Bradenton, Florida

Any questions? Read this

I'm the author of the books *Vertical Users: Novice to Extra* and *Comments, Hints, Suggestions and Criticisms by Vertical Users*. The latter has not been out on the market long enough to warrant buyer follow-up letters, but the former has brought in over 600. I'd like to be able to answer all of them personally, but it's impossible. Since many ask similar questions, I've put together some basic answers for you. Stating the actual question will not be necessary since the response will provide it.

1) My old call was WB2IWH, and I'm sorry I ever relinquished it.

2) Jerry Sevick, W2FMI, has never furnished me information for the book, but its inception was discussed with him.

3) I do not sell any type of vertical nor can I obtain any type of a discount for any potential buyer. Contact your preferred dealership.

4) No, Hustler Incorporated has never paid me one cent.

5) No, neither Hustler nor Butternut has ever given me an antenna as a gift.

6) There isn't a vertical on the market which can give the gain of a beam, quad, Yagi, etc.

7) As far as I'm concerned, laying down radials in one direction does not give directivity.

8) The only way gain can be achieved by a vertical is by phasing two or more.

9) I cannot recommend the best vertical on the market. The best one is always the one YOU buy.

10) No, at this stage I have never compared one vertical against another.

11) No, I have not compared a home-brewed vertical against any commercial one.

12) If a vertical is roof-mounted without radials, and your forward power is extra-abundant, you're being fooled. Measure the reflected!

13) No, radials need not be buried. They are just as beneficial tacked down on top of the soil. But such a method does present a hazard.

14) A *tremendous* number of radials are HELPFUL, but not necessary nor MANDATORY to a ground mount. A *tremendous* number of radials for a roof or pole mount is a tremendous waste of time and money. Groundplanes require only a few.

AMATEUR RADIO IN PUBLIC SERVICE

L.A. police use amateurs

Jim Hart
Submitted by Paul Carter, K6SIR

Police officers at Los Angeles International Airport (California) figure if they ham it up a little, they might reduce a chronic problem of automobile thefts.

The Los Angeles Police Department (LAPD) is trying a pilot program using Amateur ("ham") Radio operators as volunteers in surveillance at the airport's parking structures.

"What we want them to do is be our eyes and ears," said Lt. Paul Wright, commanding officer of the LAPD's airport substation.

If the "hams" see a crime in progress — or even if they just see someone acting suspiciously — Wright says, they will contact the substation and a regular police unit will investigate.

"We'll put them on the parking structures," Wright said. "They'll be able to observe the sidewalk areas and into the terminals, too, to watch for baggage thieves."

The program has proven successful in Hollywood in the last six months, says Officer Frank Pettinato, a ham operator who supervises the volunteers there and who will work with the same group at the airport.

"Amateur Radio operators have a unique means of communication," he said, "by being able to carry a hand radio around with them."

The amateurs showed their usefulness, Pettinato says, during a hostage situation at a Hollywood hotel several weeks ago.

Some of them were on the hotel roof, watching the parking lots below, when they heard gunshots and called the police station. (See "Ears in the thick of it," Sept. '81, page 14.)

Under normal circumstances they would have ended their involvement at that point, but Pettinato says the regular police emergency frequencies were jammed, so the officers used the Amateur Radio frequency instead.

Pettinato says the amateurs are instructed to use a telephone if possible to call in routine information. He says a federal law prohibits the use of Amateur Radio frequencies for "business-type" communication.

"But once a crime is in progress they can use their radios," he said.

Pettinato says 10 amateurs are used at any one time, usually all of them in a one-block area where there has been a particular problem with auto theft or robbery.

"We tell them not to get involved in any police action directly," he said. "They don't have the power to arrest."

The amateurs' first night at the airport was Friday, 31 July, with Pettinato there to supervise. He said there would be a two-week evaluation period.

"During that period we'll go out on weekends," he said. "If we can prove we're doing some good we'll be there on a regular basis."

About 30 or 40 amateurs are involved in the program, Pettinato says, and other areas in the city may use them if the program continues to be successful.

Wright, the airport substation commander, says auto and baggage thieves "are very difficult to catch."

"It takes a lot of time and patience," he said. "But if we can use them, we won't have to use an officer to just sit and watch for this type of activity."

Norm Friedman of Encino, California has been working in the Hollywood program since its beginning. He was one of the amateurs at the Hollywood hotel during the hostage situation.

"It's just something to help the people out," he said. "The Police Department is on a closed budget and they can use the extra help."

— Daily Breeze, Torrance, CA □

Flash flood in Nebraska

Reynolds Davis, K0GND

Disaster Action Teams supporting the Lancaster County Chapter of American Red Cross in Lincoln, Nebraska were mobilized shortly after midnight on Saturday morning, 1 August 1981. They responded to serious flash flooding in the Lincoln, Nebraska area following rainfall of between 4 and 6 inches (depending on the part of town) in a two-hour period.

In addition to stalled vehicles and water in some basements, there was substantial damage in several homes whose basement walls "exploded" inward due to outside water pressure.

Two disaster action teams were mobilized and they remained in the most serious areas until 4:00 a.m. Saturday morning. Stephen May, WA0ASM acted as net control, with Gordon Trout, Sr., W0KBS and Robert Mitchell, WB0RJJ working with one team, and Jerry Kohn, WD0EGK; Mary Rea, WD0FJY; and Grady Rea, WB0TED working with the second.

Communications were held on WR0AEV (146.25/85). □

Rescued

Dee, N5COJ

On Sunday morning, 3 May 1981—while in contact with Tom, KA5EBY on 147.28-88—I heard a breaker, Ed, WB5AXI who reported he was floundered on Red Fish Island without power and requested that the Coast Guard be notified so that he and his crew of three be assisted and towed into port. I notified the Houston (Texas) Coast Guard of the situation. Later, the Houston Coast Guard notified me they could not make contact with the Coast Guard in Galveston and requested the vessel in distress try to contact a Galveston amateur.

Gene, WD5GZX came on frequency and reported he had notified the Galveston Coast Guard and help was on the way. About one hour later, Ed, WB5AXI reported that he was in tow by the Coast Guard and all was safe. He expressed his thanks to all who assisted in this rescue.

Once again Amateur Radio comes to the aid of someone in need of help.

—Houston ARC News, TX □

Off the Air

(continued from page 13)

15) Yes, a dipole does make for quieter listening than a vertical.

16) No, my vertical has not put me on the DXCC Honor Roll. Furthermore, I don't know how many countries I've worked and I don't care either.

17) No, I have nothing against dipole users, beam users, quad users and Yagi users. I do have something against using excessive power, cranking up speech processors full bore and splattering from Hades to heaven.

18) No, the book is not available at this time in foreign languages.

73,
CHARLES "DOC" SCHWARTZBARD, F2Y
Clifton, New Jersey □

Calling Japan

I am interested in Japan and would like to write to and possibly set up a sked with a Japanese amateur.

Thanks and keep up the good work.

73,
SHELBY W. HAUKOS, KB0JW
Fergus Falls, Minnesota □

Wanted: QSLs

Anybody willing to donate a set of printed QSLs to a station in need. DX station.

D. MITCHELL
Box 1003
Fairfield, Connecticut 06430 □

Fast action saves boy

Samuel Warnock, K8NLM

At about 6:45 p.m. EDT on Monday, 27 July 1981, an emergency call was put out on the Dayton (Ohio) Amateur Radio Association 34/94 repeater by Henry Kunkle, K8CAQ. The call was answered simultaneously by Frank Warnock, K8NLM, and Bruce Sheldon, WA8GIS. Frank took the family information and Bruce the emergency information and went to the telephone advising the parents and the paramedics.

Two boys — 12 and 13 years of age — had gone to the Eastwood Lake, just to the northeast of the city of Dayton, Ohio for a few nights of camping. They built a campfire to cook on with damp firewood which died out and Robert Wiggenton of Trotwood, Ohio — the 12-year-old — poured some gasoline on to it and immediately an explosion occurred. Robert was burned with second and third degree burns between the legs and on the buttocks. He dropped to the ground and rolled till the clothing fire was out and then ran to the lake and jumped in to cool off (which was the best thing he could have done). Robert remained in the lake until the paramedics arrived. They treated him for shock and burns, and then removed him to the Grandview Hospital where he was further treated and released.

K8CAQ remained at the scene of the accident until the paramedics left with the boy.

In addition to those already mentioned, the amateurs who participated were: Hal Miller, W8XB; Vic Stauder, WA2KOO/8; Sandy Cohen, W8JEZ. □

Georgia hams in raft race

Richard Smith, WB4APG

On 18 July, nine Savannah, Georgia area amateurs furnished a 2-meter communications net for the 9th Annual Great Ogeechee Raft Race, which is sponsored by the Savannah Jay-Cees and radio station WSGA. The Raft Race covered approximately seven miles of the Ogeechee River. Amateur Radio operators were used to pass messages along the river.

Greg Dickerson, N4DBS was set up at the launch point, while Richard, WB4APG, and Sarah Smith, KA4MXJ were located at the finish line. Ginny, WB4ZTA, and Kim Clough, WB4ZBV; Tom Langenfeld, KA4RKX; and Gene Nagy, WA4CTY were in monitor boats stationed along the river. Bob Hume, WB4KOZ was stationed in a rescue boat and Don Collins, KA4BLS was stationed with the water safety chairman.

Approximately 125 rafts and canoes took part in the nine-hour raft race. We were very fortunate there were no emergencies, but there was quite a lot of information passed on the Savannah 146.10/70 repeater.

During the day we had one very bad rain and lightning storm on the river and several lesser storms that sprang up from time to time. Everyone had plastic bags to cover their radios, and we had no equipment failures. It was a new experience for the Savannah amateurs, and we are looking forward to many more such events.

Cool day for air show

Reynolds Davis, K0GND

The Lancaster County ARES (Amateur Radio Emergency Service) in Lincoln, Nebraska, was asked by both the Air National Guard and the Red Cross to assist with the Guard's 35th Anniversary Open House and Air Show at the Lincoln Municipal Airport. The event took place 26 July.

The specific need was for possible crowd control as well as to act as spotters for Red Cross throughout the crowd. Over 35,000 area residents attended; however, cool weather minimized the threat of heat-related first aid problems.

Twelve amateurs took part including: Norman Smith, KA0ABA; Howard Cash, KA0AYY; KC0CI; Bruce Colgrove, WD0DMS; Kenneth King, WD0EJJ; Darrell Abele, WD0FNV; KA0JYZ; Steve Sellmeyer, WB0QQT; Robert Mitchell, WB0RJJ; Mark Cockson, WB0ROG; Merland Erickson, K0UJU.

Communications were held on WR0AEV (146.25/85). □

'Walkamerica' amateurs praised

Lenore Jensen, W6NAZ

Two thousand walkers earned pledges amounting to $136,000 in the San Fernando Valley on 25 April for the March of Dimes fight against birth defects. Heartfelt appreciation has been expressed to the large team of amateurs providing important communication.

"You all made the day go remarkably smoothly," officials said, promising certificates to each communicator.

Benefiting by participation in years past, Vick Martin, WA6UOC, coordinated the amateur effort by careful advance planning. After Bob Burns, N6ZH, secured volunteers for the six checkpoint locations and Mel Borses, WB6VHS, found operators to meet buses at school pick-up points, an advance meeting was held with all concerned to double-check assignments and procedures.

Liaison between the Los Angeles Police Department and March of Dimes officials was handled by Jim Fortney, K6IYK. (One overly-friendly dog was put under house arrest and returned to his own yard.)

A serious need for the ambulance in which Wayne Rankin, WA6MPG, was riding with his hand-held, came after an emergency "break" on the simplex frequency, 146.52 MHz, from Checkpoint 5.

"We have a teenage girl who has fallen, striking her head. The Red Cross volunteers feel she needs to be taken to a hospital!" Very quickly the ham network brought the paramedics. Later, it was learned that the girl had recovered, but for awhile the situation was frightening.

The day was a long one for the amateurs who started at 7:00 a.m., meeting the crowds of prospective walkers at various schools for pick-up by buses to be transported to the Headquarters at Devonshire Downs (where the net control station ws located).

They were also on hand at dusk for the reunion with waiting parents of walkers. The autopatch on W6VNV/R was given a workout in the successful effort to locate missing relatives. Not till every walker was safely home did the entire operation cease with a "Well done!" from WA6UOC.

During the day, which was fortunately cool, operators at checkpoints or in "rovers" (mobiles scouring the route for strays) saw a throng of dedicated walkers determined to make as many of the 32 kilometers as possible. "A very good majority of the participants went the entire route, earning maximum from their pledge-friends," reported the officials.

A Superwalk checkpoint in the San Fernando Valley was a resting spot for walkers deciding whether to ask the Amateur Radio operators to summon the "poop-out" bus or continue to finish the 32 kilometers. Marshall Burgh, WB6YIZ, had stopped by from his mobile "roving" of the entire route to check with the operator on duty. ***(photo by Bob Jensen, W6VGQ)***

A few were especially noted: a girl who is a victim of cerebral palsy walked four kilometers without her braces, so determined was she to "help someone else." Another young lady with her leg in a cast did very well. Other handicapped persons — one in a wheelchair — joined in the Walkamerica.

In addition to those of school age, this year's walkers included several older persons — many from cooperating corporations, such as Sunkist and Kodak. Among the earlier starters were some confirmed joggers who made the entire circle route in record time.

The net control station operated with true efficiency, using minimum words. Its operators included Vick Martin, Mel Borses and Bob Burns, with guest operator, Dave Tucker, WB6FAK, on hand even though he had recently been released from the hospital following a heart attack. Dave is the hard-working SEC for Los Angeles Section. He was able to take pride in the participation by many ARES members who have been training on their weekly net, Mondays at 9:00 p.m. local time on "52."

It was agreed by all that events such as this Superwalk are "super rehearsals" for possible disasters. □

Volunteers needed to record for blind

Volunteers are needed, who are technically inclined, to read texts for two hours per week. Such subjects as math, college algebra, trig, fundamentals of electricity, geology and chemistry are covered. Recording takes place in the studios at 5022 Hollywood Blvd. in Los Angeles. For more information or an appointment: (213) 664-5525.

—Loudspeaker, San Gabriel ARC, CA □

El Cajon disaster

Most readers of the press know of the unfortunate details happening on 26 June to the group of friends and family members bound for a reunion in Alabama.

They were in a bus that had been converted to a recreational vehicle when a fire started just as they were about to cross over into the High Desert through El Cajon Pass (California). The fire occurred so fast that probably nothing more could have been done to save them.

Shortly after the fire started, fire-fighting equipment, medical assistance and emergency services officials were on scene. Ted Tanner for District 6 ARES/RACES was notified by Tom Markley, WA6IKH of the Office of Emergency Services in San Bernardino to proceed to the scene. Ted notified Shirley Wolter, WB6QFU to activate the VVARC net. Sixteen amateurs checked into the net and were available if needed. Harry Knapp, WB6FWE set up a communications point at Victor Valley Hospital at the hospital's request.

While on scene, Ted passed traffic and communications for on-scene personnel to the Office of Emergency Services in San Bernardino through the Crestline repeater. After about two-and-a-half hours, the victims had been evacuated and the brush fire controlled, at which time the Pass was reopened. Many thanks to Ted, Shirley, Harry and all amateurs who check into the net or otherwise stood ready to assist.

— Spectrum, Victor Valley ARC, CA □

'Indian' is a great guy

Bart Paine, K7CC

One of the nicest people I know of is Jim Evans, KA7BRI—the Big Red Indian. Jim helps people. He is always ready, willing and able to do for his fellow man...you never hear him gripe or complain...always has the time day or night to fetch or carry or teach or build or advise his fellow amateurs and those who want to become amateurs. Jim will buy something at a swap meet, then give it away to a needy amateur. If you need an antenna erected, have a busted rig, want to borrow something, Jim is always there. Sometimes people take advantage of him. Jim is the kind of person most feel is the personification of the "ham" image.

These are some of the reasons why, on 19 December 1980 at the MARC Christmas Party, the club presented to Jim Evans a large engraved trophy and a genuine round of applause from the entire gathering. Ol' Jim was also presented with a framed certificate of "Exceptional Achievement."

—Metropolitan ARC, Tucson, AZ □

Lenore Jensen, W6NAZ

Harry Gartsman, W6ATC probably knows as much about military "black boxes" as anyone; they keep him flying around half the world, adding to his already million miles aloft, with his fascinating business Alvaradio Industries.

The retiring president of the international QCWA is a "life-long ardent amateur" as well as a dedicated supplier of much-needed equipment to the air forces and navies of NATO and our Western Allies. As such, Harry must be a keen observer of world events. He's also an enthusiastic, personal friend to many an overseas amateur.

"My wife, Dorothy, says I'm too happy in my work," comments Harry with his ready smile. "But it's like hamming all day in Ham Heaven."

Actually, his company buys termination equipment — USA-made — when a contract ends, purchasing the entire run of whatever is left over. He also gathers up government surplus. Thus, when any service needs "refills" or spare parts, his organization can provide it.

"We are reverse-engineering specialists, too," he adds. "Our engineers can take a black box with no prints and take it apart, study it, and re-build it . . . we are unique."

Of course, they can duplicate almost anything.

So, when any military unit needs a spare part for equipment no longer in current military archives, they come to Harry's men to serve as "master-mind detectives," who work on gear for which specs and schematics have long been lost. And much of it is very hush-hush.

ECM (electronic counter-measures,) IFF (identification friend-or-foe) transponders, ASW (anti-submarine warfare) and other less well-known devices are specialties.

Perhaps the greatest emphasis is on TACAN — Tactical Air Communication and Navigation. Originally military, TACAN is now also much used by civilian airports. The system allows a plane to find an airport "like a direction-finder," letting the pilot fly blind, find his way in and orient himself.

Alvaradio is now number one in TACAN behind the three biggies: ITT, E-Systems and Hoffman. "We've supplied sites in Libya, South Africa, Iran, Pakistan, Korea, etc.," Harry points out.

Walking through the maze of equipment piled high in the huge plant, it's easy to understand why W6ATC considers it a "ham heaven." For any amateur who loves to build, improve and see a piece of complicated gear become a working unit, it's paradise indeed.

"We've taken a ham's hobby and built a business with it (multi-million by now) and surrounded ourselves with many hams over the years. Many have gone on to big things!"

One who refuses to move on is Moe Joffe, W6PHE. He came out of retirement to help Harry seven years ago on a special assignment, fell in love with the computers and other goodies in the plant, and refuses a second retirement. He's having fun while he provides experienced assistance.

How did Harry become a world-traveler dealing in "black boxes" and spare parts? Well, one thing led to another but it certainly started with his becoming W9OFZ in 1933. He was typical of the radio amateurs at the time — fascinated with radio rigs and their individual parts plus full of wonder at a transmitter which would send RF into the air and a receiver which could be heard across the world!

Harry Gartsman, W6ATC. ***(Photo by Bob Jensen, W6VGQ)***

He's a native of Chicago and gained his earlier education at the University of Illinois and Armour Institute of Technology. The first business venture was a radio service, followed by a manufacturing business supplying audio equipment for Sears Roebuck and Montgomery Ward catalog sales. He also handled 16mm sound for DeVry home projectors.

Then — the war changed everything.

Because he was already so acquainted with radio and its gear, Harry joined IMSAT immediately after Pearl Harbor, and became Assistant Resident Inspector of Naval Material at the Western Electric plant in Hawthorne, Illinois. In fact, he and a group of other amateurs were "frozen" in their jobs for the duration of WWII.

A heavy load of responsibility was laid on him, nicknamed (at 25 years of age) the "million-dollar whiz kid." He recalls, "I signed the invoices for the Navy so W.E. could get its money, about $20,000,000 per month for three years!" Later, he was the only civilian selected to serve with a Naval Officer termination team to dispose of $31,000,000 of electronic gear over his signature.

Obviously, he gained enormous experience and knowledge. So, when peace came, what to do with it?

Back in Chicago, a small business was started "out of the bedroom closet." The idea was to obtain small amounts of "termination" and find buyers.

The first sale was to Bob Henry of Butler, Missouri, who bought some BC610 exciter decks. His brother, Ted, needed some 807s. At the same time, Harry and his wife, Dorothy (who handled the mail orders) started supplying knobs for ARC5s — those remarkable receivers grabbed up by thousands of amateurs anxious to give them happy homes following their service in war planes. The knob was essential in order to tune the devices "on the ground." They also sold motors for small beams.

Moving to California, Harry started manufacturing more of the vital knobs. "Al Ezor, W6QQG sold me the tooling for the splines," he recalls gratefully.

By then it was clear that Air Forces and Navies of NATO and our allies were going to need electronic spares; it was a natural that Harry should establish, in 1946, Alvaradio Industries and it hasn't stopped growing.

And he hasn't stopped traveling, on the go "about 30 percent of my time," visiting a great many countries.

It also was natural he would make friends with DX amateurs — too many to list here. The roster reads like another version of Ham Heaven . . . from Scandinavia to Italy, Germany to Korea, England to Japan.

Dr. Yun Tok-chin, chief pediatrician at Yonei University, Seoul, (left) shown with Harry Gartsman, W6ATC, Pae Yong-i, HM1KA, and the father of young Chang Ki-hun who was suffering from an extremely rare disease. The boy's father had appealed to the Korean Amateur Radio League to help find the necessary medicine. HM1KA's pleas were answered by W6ATC who said he would secure it and arrange an airlift. Unexpectedly, Harry Gartsman decided to carry the drug himself to Korea where he was most enthusiastically welcomed.

As the head of QCWA the past two terms (and before that, three two-year terms as vice president under Barry Goldwater, K7UGA, and Frank Gunther, W2ALS), he has made personal calls on many a QCWA member overseas.

Fluent in German, Harry remembers one special QSO from the station of Jean Wolff, LX1JW, to the German chapter QCWA on 80 meters. "Speaking of Luxembourg," he adds, "LX1DB is sending me a design on the 35-foot homemade dish with which he has made WAC, Moonbounce, on 432!"

Harry's eyes light up at such exploits, revealing his life-long enthusiasm for such progress. Australia and Israel now have QCWA chapters, too, he reminds us.

Probably his proudest memento of travels is the plaque received "in gratitude and recognition of heroic efforts in saving the life of Kihoon Chang when contacted by Amateur Radio. By selfless effort, he obtained the necessary drugs and personally delivered them to Korea, making it possible to save a young boy's life!"

The event was given such widespread news coverage by radio and TV in Korea, Harry was astounded to find himself treated as a hero. "But it was great for Amateur Radio in Korea," he admits. "Of course, any ham is delighted to be able to use our hobby for such a purpose."

Another plaque attests that the City of Beverly Hills issued a Proclamation on his 60th birthday, congratulating him for his many public service activities. (That was almost as good as their allowing him to have his tower and beam at his residence on the famous Sunset Boulevard.)

His son, Gary, had to abandon his own ham license to devote full time to his career as an orthopaedic surgeon, specializing in micro work. "He's particularly adept at working with the tiny nerves of hands, nerves finer than human hairs."

Daughter Cheryl and her husband, Tom, however, hope to have their own licenses before long.

He was caught for this interview while packing an attache case and his ticket for Turkey. When he goes to France, his call is FØIS; in Grand Cayman it's ZF2FA. By now he should have his DL and G calls with no longer a need for /portable.

Life is exciting for Harry Gartsman, and he makes the most of it. "After all," he contends, "I remember what happened in 1959. I was in Chicago, standing in front of the hotel, about to go to New York. I noticed Sir Edmund Hillary and his friend, a Nepalese guide. At the last minute, the famous mountain climber turned to his companion and suddenly said, "How about staying another day here in Chicago?"

(*please turn to page 20*)

STATION Appearance

The visual presentation of this station has a few features not normally seen at other amateur installations. At the far left is a wooden plaque into which the station call sign has been routed. Note the licenses mounted in frames, just below the map. Above the map are some awards in frames. QSL cards are neatly displayed in the plastic holders.

Obviously, this is a station that reflects the pride shown in being an amateur by this family. We're pleased to have this couple as this month's winner.

Following is an excerpt from a letter sent to us by the Bices:

"My XYL, Lucille, WB7SGV, has been doing custom-designed QSLs since 1975. Among her latest are 9G1TN from Ghana and LA9FY from Norway. Besides her QSL business, Lucille enjoys painting in oils, pastels, etc. She is staff artist for Pend Oreille Printers located in Sandpoint, Idaho. John Little, KB7DT, is the general manager of Pend Oreille Printers; a very close friend of ours does all the color separations for full-color QSLs. Lucille is also very active in the Newport Lioness Club and is a past vice president.

I am president of the Newport Lions Club this year and participated in "Hunting Lions in the Air" this year, as well as last.

I had the privilege of being "Elmer" for John Little, KB7DT, and am presently working with our Newport Lions Club past president, who has just taken his Novice exam and is awaiting the results.

I served as a radio operator in the U.S. Navy during WWII and served aboard the destroyers *USS Bristol DD 453* (lost to enemy action 13 October 1943) and the *USS Moale DD 693.*

I often wonder why I waited so long to get into such a rewarding hobby as Amateur Radio. Our son Michael John is a Novice and has the call KA7BWH.

Yours truly,
A. (MIKE) BICE, WB7SGU
Spirit Lake, Idaho □

American Radio Relay League

J.A. "Doc" Gmelin
W6ZRJ
Past Director, Pacific Division, ARRL
Honorary Vice-President

An article on page 50 of the August 1981 issue of **QST**, entitled "Long-Range Planning — An Update," is the latest report on the actions of the highly important ARRL Long-Range Planning Committee (LRPC).

This committee was established by the ARRL Board of Directors at their January 1979 annual meeting to deal with a need for greater attention to long-range planning for the ARRL and all of Amateur Radio.

The report — written by Vic Clarke, W4KFC, Honorary Vice President and Dave Sumner, K1ZZ, Assistant General Manager ARRL — states, "The failure to look ahead and accommodate future developments *can* be fatal."

Why are we suddenly involved with long-range planning in an organization which is over 60 years old? Haven't we been doing long-range planning all of those years?

The answer is, *yes we have,* but since — in the past — the organization was relatively small, and Amateur Radio and the world in general were much less complex than they are today, such long-range planning was done by the Board of Directors and Headquarters.

With the increase in complexity of the League and Amateur Radio in general, it is now felt by many — and I believe rightly — that we need more specialized long-range planning by a special committee.

While I will not repeat all the material covered in the latest **QST** article here, I will comment on some aspects of this important planning area.

I do highly recommend that all League members and radio amateurs read this article, at least for information, and if you feel you have something to say about what you think the future of Amateur Radio should and will be, then by all means write to the Committee via ARRL Headquarters.

At the end of the article is a list of reference readings which give the background of the Committee as well as the findings of the Committee and the "Survey of Amateur Radio" conducted by the League in 1979 and 1980.

Listed in the article are "tentative planning assumptions," which are a starting point for both study and evaluation. These assumptions are at the very least *reasonable,* even if they cannot be proven until time passes and make the predictions either true or false by hindsight.

Next in the article follow goals and objectives for long-range planning, which are in three basic categories. Here we find little new because the objectives of the League have been pretty much these objectives all along.

These include items such as "providing emergency communications services during natural and man-made disasters," "develop a national cadre of skilled operators and technical personnel," "promote international friendship and understanding" and "strengthen the public image of Amateur Radio." In short, the kinds of things the League has been doing successfully for the past 60-plus years.

Sure, we probably could have done better long-range planning in the past, but to err is human. The League is trying to do better all the time.

Let's not overlook the great success the League has had when we are being critical of things that could have, or perhaps should have, been done as seen from hindsight.

Finally, the **QST** article in the August issue deals with "Areas Requiring Early Attention." There are six major areas here. These are: "1) Expansion of public service involvement of Amateur Radio; 2) Effective working relationships with all levels of government; 3) Membership involvement in League affairs; 4) The need for improvement of the ARRL organizational structure; 5) Enhancing the technical interests and abilities of radio amateurs; 6) International Amateur Radio organization and policies." None of these areas of concern is new. We are, however, putting increased efforts into improving Amateur Radio in these six important categories.

All of the problems involved with these six areas are complex and not easy to solve. As an example, everyone agrees that emergency communications organization is important to the future of Amateur Radio, but less than 5 percent of radio amateurs are actually involved in such activities.

As another example, most everyone agrees radio amateurs should be more technically involved and build more equipment, but more and more amateurs use only commercially built radio gear in

their own stations. Many amateurs know little about how to repair such equipment when necessary.

There is another aspect of long-range planning that is not covered in this report which is perhaps of basic importance to deciding future actions for Amateur Radio. That aspect consists of deciding the basic purposes of Amateur Radio itself. While everyone seems to agree that Amateur Radio should be for public service and the attainment of technical knowledge and skills, our actions on the air often do not back up these basic purposes.

More and more in Amateur Radio operation today, one sees activities that are strictly personal communications activities. We hear much conflict between amateurs on many of our bands; deliberate interference to other stations, often for the purpose of causing further conflict; "near" broadcasting of one's personal viewpoints on political and religious matters; and conflict between stations who are in competition for awards in areas such as DX and contests. Often amateur operators are downright rude.

Such actions would lead one to believe that while radio amateurs in general have high ideals and goals, our actions show we have less selfless reasons for using the Amateur Radio spectrum. This, too, must be taken into account in long-range planning and is being done so to some extent, according to the contents of the QST report.

As stated in the article, the appendix of the Phase I reports presents strategies for addressing nearly 100 separate objectives identified in the body of the report. This shows there is much to be done in the area of long-range planning for the League and all of Amateur Radio. All League members should become involved with this important activity.

According to the article, Phase II of the LRPC is due in September. This will include detailed recommendations on changes that might be made in a number of areas of the League structure and activities.

From what I have heard in my now limited contact with the Board and members of the Committee, there may be some major specific proposals presented to the Directors at their meeting in early September.

We urge all League members and other amateurs to read the important report from the LRPC in the August 1981 QST and also to review the other readings referred to at the end of this article.

Stand by for the next LRPC report. If you have the necessary background, you will have a better understanding of what comes out in the Phase II report from this committee. Then you will be able to make better comments and share in deciding the future actions of the ARRL and Amateur Radio. □

Who's Who

(*continued from page 17*)

"Something clicked in my head," continued Harry. "I asked myself why *I* was rushing so fast to reach New York. So I cancelled the trip."

He shook his head gravely and went on. "That was the plane which collided with another over Brooklyn. All the people aboard were killed."

In Los Angeles recently, he had an unexpected and most interesting opportunity to meet a Chinese delegation. "I happened to have a Callbook and was able to show them that China alone was not in it. They were impressed."

He hopes that visits by amateurs to China, such as those made recently by Don Wallace, W6AM, Irv Emig, W6GC, and others will help with the thaw.

"I believe Amateur Radio can be the catalyst for world peace! Like when musicians, doctors or scientists get together and the world suddenly unites. Nationality, race, religion all are momentarily forgotten. Amateur Radio is on that same level," he insists.

W6ATC, who's seen so much of the world and its people, then leaned forward and added, "You know, I really hope amateurs everywhere will use their stations to further this all-important dream!" □

Send your news to Worldradio at the same time you send it to other amateur publications and see who prints it first. We get the news out before anyone else.

DXpeditions

(*continued from page 7*)

the world-famous Bonneville Salt Flats in Utah. Driver will be Richard Noble.

In celebration of the event, an Amateur Radio special event station will be set up and will send SSTV pictures of the event. Operating schedule is to be 3-4, 10-11, 17-18, and 24 October 1981 (these dates are Saturdays and Sundays). The operating times for Saturdays are 1500 UTC to 0300 UTC, and on Sundays 1500 UTC to 0100 UTC. The frequencies are 14.240 SSTV, 21.340 SSTV, 21.370 SSB and 14.290 SSB. The special event station will also be on the air with no set schedule during the week of 5 October 1981.

Additionally, ATV coverage will be provided along the 11-mile strip, transmitting video back to the pit area to insure safety for the public. The United States Auto Club will not allow the public on the track during runs.

The special event call sign will be WA7MTF. Amateurs working the special event station may receive a beautiful commemorative card by sending a large 9-by-4-inch SASE to: Richard T. Briggs, WA7MTF, 8085 South 1475 East, Sandy, UT 84092.

WA7MTF will be riding in the jet car and hopes to establish a new world record for the fastest Amateur Radio land mobile. He'll be operating 2 meters. □

Vatican City celebrates 50th

The Radio Vaticana, on the occasion of the 50th anniversary of its foundation, issues an award available to licensed amateurs anywhere in the world under the following rules:

- Contacts with stations in the Vatican State must be made during the period starting from 1 October 1981 on any amateur band from 3.5 MHz to 144 MHz and any mode (AM, SSB, CW, RTTY) including crossband relay and mixed. This period ends on 1 February 1982.
- Stations in Europe (including the USSR in the European territory) and the USA (except Alaska and the Hawaiian Islands) must work (or listen to) at least two different stations operating from the Vatican State. At present, there are only three licensed stations: HV1CN, HV2VO, HV3SJ.
- Stations outside the above-mentioned countries must work (or hear) at least one HV station.
- The applicant must prove the required contact(s) by sending the photocopies of the QSLs received from the HV stations during this period.
- The application must be sent before 31 December 1983. This must be addressed with the above-mentioned documents to: **HV1CN, Radio Vaticana, Citta' del Vaticano, EUROPA.** □

AWARDS

Scott R. Douglas Jr., KB7SB
Post Office Box 46032
Los Angeles, Calif. 90046

Now that vacations are over and the kids are returning to school we can get down to some serious awards chasing. The bands also appear to get better as we approach winter and the hope of new DX should get many of us back on the bands with great anticipation. With this in mind we will examine awards with the DX flavor.

W-100-N "Worked 100 Nations"

The W-100-N eliminated the need to work geographic areas heard only during DXpeditions. Most national entities have amateur stations active on the bands, thus putting this award well within reach of all moderately equipped operators utilizing good communications skills.

The Worked 100 Nations award is available to all licensed Amateur Radio operators who can prove (by submission of QSL cards) two-way communications with amateur stations in at least 100 different nations. For instance, G, GM, GD, GI, GJ and GU are all the same nation. So only one confirmation from any one of those prefixes is needed or eligible for the UK.

Rules: All contacts must be made with land-based stations. Contacts with ships at sea or at anchor or aircraft cannot be considered. All contacts must be made from the same country. Only contacts made after 1 January are eligible. Fraudulent confirmations or forged submissions will result in disqualification of the applicant and forfeiture of the application fee.

Your application must include the following: 1) A letter of transmittal requesting W-100-N; 2) A list of contacts showing station call sign, nation, date, band, and mode; 3) QSL cards in alphabetical order by prefix; 4) Application fee of $7.50 to cover the cost of the award and the return of your QSL cards by registered mail.

All applications should be addressed to: **Worldradio**, Awards Manager, 2120 28th Street, Sacramento, CA 95818.

There are no special endorsements to this award so all bands and modes may be used.

Upon approval of your application, a beautiful 11-by-14½-inch certificate will be issued and your name and call number will appear in a coming issue of **Worldradio** in the DX column.

Complete rules and country list can be obtained by writing this paper. Include an SASE.

Awards from the RSGB

The WBC "Worked British Commonwealth", BCRTA "British Commonwealth Radio Transmission Award" and the CDXC "Commonwealth DX Certificate" are available to licensed Amateur Radio operators. The BCRRA "British Commonwealth Radio Reception Award" is available to SWLs. For these awards the following rules apply:

1) Only contacts after November 1945 are valid.

2) Amateurs in the USA and Canada should submit a list certified by the awards manager or secretary of their local ARRL/CRRL affiliated club.

3) All contacts must be made from the same call area.

4) All awards are issued free to members of the RSGB with proof of membership. Others should include $3.

5) A complete list of details and a current country list can be obtained from the awards manager for your SAE and three IRCs.

6) All applications and requests for information should be addressed to Peter A. Miles, G3KDB, P.O. Box 73, Lichfield, Staffs, ENGLAND.

WBC: One confirmed contact is required from each of the five continents, North America and South America (count as one), Europe, Asia, Australia, and Africa.

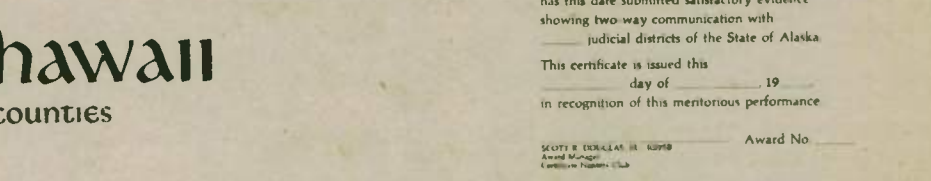
BCRTA: Confirmed contacts with 50 of the countries on the RSGB country list.

BCRRA: Confirmations are required from 50 of the call areas on the RSGB country list.

CDXC: Confirmed contacts are required from 50 of the call areas on the RSGB country list on the 14 MHz band and 50 contacts on any or all of the other bands with the exception of 14 MHz.

Hawaii Award

Issued to both licensed Amateur Radio operators and SWLs (on a heard basis) for confirmation of at least three of the four counties of Hawaii. Endorsements for all SSB or all CW may be requested at time of issuance. Only contacts after 21 August 1959 are valid. The award measures 8½-by-11-inches, and is printed on a parchtone bond. Send your log extract along with $3.50 to Scott R. Douglas, Jr., KB7SB, Award Manager, Certificate Hunters Club. (See address in column head.)



This certifies that
WorldRadio
through Amateur Radio Station
has this date submitted satisfactory evidence
showing two-way communication with
counties of the State of Hawaii
This certificate is issued this
day of 19
in recognition of this meritorious performance
Award No.

This certifies that
WorldRadio
through Amateur Radio Station
has this date submitted satisfactory evidence
showing two-way communication with
judicial districts of the State of Alaska
This certificate is issued this
day of 19
in recognition of this meritorious performance
Award No.

Alaska Award

Issued to both licensed Amateur Radio operators and SWLs (on a heard basis) for confirmation of at least three of the four Alaskan judicial districts. Endorsements for all SSB or all CW may be requested at time of issuance. Only contacts made after 3 January 1959 are valid. The award measures 8½-by-11-inches and is printed on a parchtone bond.

Send your log extract along with $3.50 to Scott R. Douglas, Jr., Award Manager, Certificate Hunters Club.

CHC nets

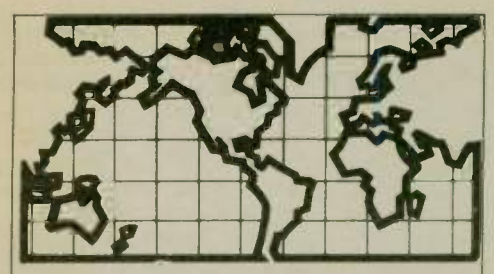
The Certificate Hunters Club, an affiliate of the International Amateur Radio Society, is building a large system of affiliated nets featuring a wide variety of activities and services for your enjoyment. We hope you will stop by and join in the fun. Some of our nets include:

CHC Pacific Family Hour on 21.370 MHz from 0000 to 0300 daily. Our net managers here are Galen Graff, KB5FU and Bill Dawson, W7TVF. Pacific DX contacts and QSL information are the main attractions here along with a nice relaxed atmosphere.

CHC DX Net on 14.300 MHz –QRM from 0200 to 0500 daily. Our net manager is Tim Herrick, WB8JSQ (soon to be ??8?). Worldwide DX and award information in abundance. Your 100 watts and a dipole should have no problems here.

More information on CHC nets will appear here in the future. Look for our 40-meter net, soon to become active.

Till next month, 73's and good hunting.



DX WORLD

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

Activities calendar

26-27 September	Scandinavian Activity Contest (Phone)
03-04 October	VK/ZL Contest (Phone)
10-11 October	VK/ZL Contest (CW)
11 October	RSGB 21/28 MHz Contest (Phone)
18 October	RSGB 21 MHz Contest (CW)
24-25 October	**CQ Magazine** World-Wide DX Contest (Phone)
08 November	International OK DX Contest
14-15 November	DARC European DX Contest (RTTY)
28-29 November	**CQ Magazine** World-Wide DX Contest (CW)

Most of the above are courtesy of Frank Anzalone's column in **CQ Magazine**. Complete details can be found in his column.

W-100-N

Eight amateurs were awarded **World-radio**'s Worked 100 Nations Award during this past period. Congratulations go to the following:

128.	W6MUL	John S. Forchtner
129.	WD6DFN	Roger W. Carter
130.	WB7FAT	Karl Rietz
131.	K9BQL	Jack R. Ekstrom
132.	WA9WGJ	Dave Christensen
133.	N5CID	Don Strong
134.	KB6Q	Alan L. Abrams, M.D.
135.	AG7P	William S. Perry, Jr.

I have observed that many applicants have not been checking the rules closely. Such violations included contacts made prior to 1978, reciprocal calls (such as N6JM/BY5), and Clipperton Island cards used for French Polynesia. Fortunately, these applicants in error had enough cards to make up for it.

It is interesting to note that Don Strong, N5CID — who received certificate number 133 — has been on the air since 9 August 1980, after a 32-year absence. Don was first licensed in 1928 and held such calls as W7VK, K7AIE and W6VK. Welcome back, Don!

Tunisia (3V8)

Found buried in the pages of Harvey McCoy's *Long Island DX Bulletin*, we find a planning of a DXpedition to Tunisia. The Borough of Havering DX Club has set the date for their DXpedition from 26 October through 2 November. They hope to get the call of 3V8DX with operation on both SSB and CW, 10 through 80 meters. These dates will just miss the World-Wide DX Contest. Perhaps they have planned it that way. QSL this one via F.L. Curtis, G3SVK.

Jordan (JY)

Ray, JY9RC, expects to be in Jordan for a year. Watch for him near 21.275 MHz from 1900 UTC.

Also active from this country is Zedan Saad, JY3ZH, usually found on 14.215 MHz from 0001 UTC. This station has been found running the boat with 7Z2AP as late as 0600 UTC. QSL JY3ZH via Franz Langner, DJ9ZB.

Oman (A4X)

You Novice band operators have one just for you. Dave Jelly, A4XIJ has been found in the Novice band around 0001 UTC between 21.100 and 21.200 MHz. He is learning the code so he won't be operating beyond the ability of most Novices. We might add — for the benefit of those of you unfamiliar with UTC — that 0001 UTC is 8:00 p.m. Eastern Daylight Time. The rest of you can figure out your own times. Also, don't forget (you higher class license holders), that the maximum power limit on those frequencies is 250 watts input.

OK. Now we are out of the Novice band. Look for A. White, A4XIH on 21.251 MHz after 1800 UTC, or on 14.035 MHz after 1200 UTC. Another station, A4XIY, has been reported on 21.350 MHz from 0100 UTC.

Mount Athos (SV1/A)

A DXpedition to Mount Athos is planned for May 1982 by the International Police Association, including Adolf Vogel, DL3SZ, Tom Jenkins, WA8VDC, and others. More later.

You don't need a super station to complete the requirements for the Worldradio W-100-N Award. Here is Don Strong, N5CID, of Farmers Branch, Texas, who recently completed the requirements for the award. Don returned to Amateur Radio last year after a 32-year absence. He was first licensed in 1928. ***(N5CID photo)***

Mongolia (JT)

JT1BG, an active station from Mongolia, can be found on the Family Hour conducted by Bill Bennett, W7PHO. Look for the net on 14.225 MHz from 1400 UTC. This station has also been found higher in the band around 1645 UTC.

Also, look for JT0WA who has been found on 14.210 MHz from 1100 UTC. As this also is an active station, you may well find him up or down from that frequency. He has also been reported on 15 meters on 21.354 MHz from 0200 UTC.

A special event station signing JT60AB has been reported on 21.223 MHz around 0900 UTC, but we don't know if this station is still on.

Midway Island (KH4)

This famous island is represented by several stations. You may find KM6KC near 21.250 or 21.333 MHz daily from 0300 UTC. Ray, the operator of this station, is scheduled to be there through October. His QSL chores are handled by S.E. Sel Carlson, KA6ERF.

Another station on the island is Peter Meyer, N0AFW/KH4 who has been reported on 21.301 MHz from 1800 UTC. Another portable KH4 station is KH6HMB/KH4 who has been on 21.325 MHz from 0200 UTC.

KM6DI is another station reported on 14.210 MHz at 1100 UTC. We are not too sure of many of these KM6 calls as they may very well be California types due to the FCC reassignment of calls.

Melilla (EA9)

Rafael Marin Fernandez, EA9HY keeps things active from Melilla by being active near 21.280 MHz from 0001 UTC. For the CW types, Jose Cepero Dominguez, EA9EU has been reported workable on the west coast from 0430 UTC near 21.023; look for John, in Ceuta.

A check through the reports for the EA9's gives us EA9AM on 14.210 MHz from 2400 UTC; EC9AU on 21.010 MHz from 2300 UTC; Rodolfo Kraemer, EA9FZ on 14.210 MHz from 2400 UTC; and EA9JZ on 21.025 MHz from 2300 UTC. EA9JY has been reported active from Chafarinas Island out of the American Phone Band on 14.190 MHz at 2000 UTC. For you Islands-on-the-Air (IOTA) hunters, this one counts as AF-36. QSL this one via P.O. Box 285, Melilla, via Spain.

Heard Island (VK0)

This one appears to be on again. The latest report is that Jim Smith, VK9NS, will bring his wife Kirsti, VK9NL, with him on this trip. The planned date is late August or early September.

As Heard Island is down in the Southern Hemisphere, it seems rather early to be attempting a DXpedition to this place. I would think a delay of two or three months would be better.

Kure Island (KH7)

This remote Hawaiian island is kept active by Dave Goodwin, operating as WB0ICS/KH7, who plans for a one-year stay on a Coast Guard assignment. Look for Dave around 14.230 MHz from 0900 UTC. His QSL chores are handled by Bart Dolman, WB6FBN. If you catch "Fly by Night" on the bands, most likely you will find Dave. Dave also frequents the higher part of the band at 14.290 MHz.

Monaco (3A)

Evidently, that Monaco DXpedition by the group from the Netherlands never materialized. Nothing else has been heard as to what happened to their plans.

Here is the J5AG DXpedition crew preparing to leave Gambia for Guinea-Bissau last April. Shown (left to right) is Gunnar (Gus) Brundin, SM3DVN; Erik Sjolund, SM0AGD; Jorgen (Joe) Svensson, SM3CXS; the pilot, C5ADX; and Leif (Lee) Wall, SM3RL. ***(Photo courtesy of Jay O'Brien, W6GO.)***

San Felix Island (CE0X)

The scheduled date for opening of the San Felix DXpedition is 14 September. A two-week stay is planned. Bob Read, WB1GDQ — who has the license for the operation — is busy gathering his crew, which consists of Fred Hening, N4CNL; Steve Leverich, WB9AAD; Cliff Saccalis, SV1JG; Dr. Thomas Donovan W0AX; and possibly Manos Darkadakis, SV1IW. There may be the possibility of them getting on the air a day earlier, so watch closely. Operations are to include both SSB and CW, 15 through 80 meters.

As in most DXpeditions, operating expenses run high. All donations will be appreciated. Send contributions to the San Felix Escrow Fund, c/o N4CNL, 1231 West Tharpe, Talahassee, FL 32303.

Central African Empire (TL8)

Several TL8 types have been reported to hand out contacts for the deserving DXer. Claude, TL8DC visits 21.205 MHz from about 0945 UTC. Claude asks that his QSL requests be sent via Xavier Debaert, F6EWM. Unfortunately, it appears that this station avoids the American phone bands.

But we do find Tony Nement, TL8CN up in the American phone band. This station has been reported on 21.253 MHz at 1600 UTC, 21.285 MHz at 0750 UTC, 21.295 MHz at 2100 UTC, and most likely other spots on the 15-meter phone band. TL8CN has also been reported on CW at 21.035 MHz at 1900 UTC, and to break the single-band habit, on 14.033 MHz at midnight UTC. A third station, TL8AV, has also been reported on 21.300 MHz at 2300 UTC.

Burma (XZ)

Sanplo, XZ5A, and Laydohmoo, XZ9A, are still in there handing out Burma for the deserving. As of this writing, neither call is being accepted at the DXCC desk, so hang on to your cards until further word from ARRL.

A linear amplifier has been donated by Robert Von Rekowsky, K2HFX of the Long Island DX Association, which should help improve the signals out of East Burma. For you map studiers, XZ5A is at Wanko, and XZ9A is at Mepow.

The following pictures are of XZ5A which were submitted by Jay O'Brien, W6GO, which he had received from Jin Fukuta, JA8BMK, the QSL manager for the station. No information was supplied with the photos except an identification of the operator in the tank shirt, who is JA8BMK. From another source, the guy sitting at the rig with the others standing is reported to be Sanplo. And that is probably him again in the other photo grinning at us with the guy in the blue shirt on *HIS* left Laydohmoo, who is now signing XZ9A. Also shown is the antenna system.

British Indian Ocean Territory (VQ9)

Representing Diego Garcia is Calvin Coursey, VQ9QA, whose home call is N3QA. He has been active and will go off the air sometime in September. Look for this station near 14.030 MHz 1000 to 1400 UTC, 21.050 MHz 1600 to 1800 UTC. Other stations reported include VQ9KT on 14.008 MHz from 0130 UTC, and VQ9AA on 14.210 MHz from 1200 UTC.

Prefixes

Prefix hunting is another popular sport in the art of DXing. **CQ Magazine** sponsors the WPX Award, for confirming Amateur Radio prefixes throughout the world. To this interest, these special prefixes keep popping up.

Those 'AX' prefixes were a special prefix used by the Australians for one day in celebration of the Royal Wedding. If you missed out on any of these, fear not. This is not the only time the Australians have used the 'AX' prefix.

EK8R was the call used by a Soviet DXpedition to Oblast 042, Gorno-Badakhstan, Tadzhik SSR. QSL this one to UJ8JJJ, via P.O. Box 88, Moscow, U.S.S.R.

Navassa Island (KP1)

That HHØN Dxpedition to Navassa Island was an unauthorized DXpedition by a group of Haiti amateurs, whose government makes claim to the island. The United States Coast Guard has a lighthouse there, and permission must be granted by the Coast Guard to land. There is no way the operation will count for DXCC purposes. With Haiti's claim on the island it still wouldn't count, as it is too close to Haiti. If you did work them, all you got was another contact with Haiti — and a new prefix for the prefix hunter. QSL to Julio Ripoll, WD4JNS.

The TDXB Countries Needed survey

Last May, 2200 DXers — subscribers to *The DX Bulletin*, edited and published by Jim Cain, K1TN — were asked to list what DXCC countries they were in need of. About 900 subscribers responded to Jim's request. We have reproduced the *TDXB* survey here for you. Omitted are the number of subscribers needing the country, as this will mean nothing to you. You will note that several of the needed countries in 1980 have moved down to lower levels in this recent survey.

1. China	BY
2. Kamaran Islands	VS9K
3. Burma	XZ
4. Albania	ZA
5. Laccadives	VU7
6. Heard Island	VKØ
7. People's Republic of Yemen	7O
8. Khmer Republic	XU
9. Crozet Island	FB8W
10. Bouvet Island	3Y
11. San Felix Islands	CEØX
12. Andaman Islands	VU7
13. Malpelo Island	HKØ
14. Vietnam	XV
15. Afghanistan	YA
16. Yemen	4W
17. Sao Tome	S9
18. St. Peter Rocks	PYØ
19. United Arab Emirates	A6X
20. Malawi	7Q
21. Laos	XW
22. Chad	TT
23. Tristan da Cunha	ZD9
24. Malagasy Republic	5R
25. Kermadec	ZL/K
26. Mozambique	C9
27. Annobon Islands	3CØ
28. Mellish Reef	VK9
29. Libya	5A
30. Bangladesh	S2
31. Iraq	YI
32. Spratly Islands	1S
33. South Georgia	VP8
34. Juan de Nova	FR/J
35. Burundi	9U
36. Congo	TN
37. South Sandwich	VP8
38. Glorioso Island	FR/G
39. Clipperton Island	FOØ
40. Bhutan	A5
41. Auckland & Campbell	ZL/A
42. Trindade Island	PYØ
43. Niger	5U
44. Macquarie Island	VKØ
45. Jan Mayen	JX
46. Mount Athos	SV
47. Aves Island	YVØ
48. Cocos-Keeling	VK9Y
49. Taiwan	BV
50. Tunisia	3V8
51. Marion Island	ZS2M
52. Tokelau Islands	ZM7
53. Mayotte	FH
54. Tromelin Island	FR
55. Somali	6O
56. Ethiopia	ET3
57. Desecheo	KP2
58. Franz Josef Land	UA1P
59. Kerguelen Islands	FB8X
60. Equatorial Guinea	3C1
61. South Shetlands	VP8
62. Benin	TY
63. Juan Fernandez	CEØZ
64. Mali	TZ
65. Uganda	5X
66. Republic of Guinea	3X
67. Abu Ail	
68. Cameroon	TJ
69. Comoros	D68
70. Willis Island	VK9
71. Togo	5V
72. Serrana Bank	KS4
73. Bajo Nuevo	HKØ

It is interesting to note that many of the DXCC countries listed above have been quite active in the past years. In conclusion, it would be safe to say that DX is a fast-growing interest with many newcomers each day. Another important point is that the above survey is a result of only the approximately 900 *TDXB* subscribers who responded.

Incidentally, you may be interested in receiving *The DX Bulletin* weekly. Cost is $26 per year to the United States, Canada and Mexico; $35 per year to all others. Contact *The DX Bulletin* at 306 Vernon Avenue, Vernon, CT 06066 for further details.

DX newsletters

Here are descriptions of some of the other bulletins used in this article:

• **DX News Sheet.** This sheet is published weekly by the RSGB and edited by Geoff Watts. Cost of a yearly subscription is 12 pounds. Contact the RSGB at 35 Doughty Street, London WC1N 2AE, ENGLAND.

• **The Long Island DX Bulletin.** This newsletter is an old standby and is mailed out every two weeks by Harvey McCoy, W2IYX. At one time, the bulletin was a publication of the Long Island DX Association. Stateside subscription rates are $10 per year. Contact the LIDXB at P.O. Box 173, Huntington, NY 11743.

• **The DXers Newsletter.** I don't know who the publisher is on this one, and there never are any clues as to the identity of the individual. This is another bi-weekly DX sheet. Recently, the information on DX is lacking, and what there is of it the other bulletins have already printed. The newsletter had started out quite informative and now needs much improvement. Subscription rates, $15 per year domestic, all others $27. Contact *The DXers Newsletter,* P.O. Box 1458, Morristown, TN 37814.

There is another publication, *QRZ DX,* but evidently the publisher prefers to keep his circulation to a minimum as he has never sent a sample or complimentary subscription. All the newsletters that are received are complimentary, which in turn I give credit to in the column. In some cases, there is a reciprocal agreement with the publisher as to the exchange of papers. In addition to the DX newsletters, I even use the "Contest Calendar" by Frank Anzalone, W1WY, in **CQ Magazine** for the Activities at the beginning of this column.

Quote of the month!

Overheard on 20 meters with a WD5 working XZ5A on the last day in July. "When last heard you were a three by three with a good signal!"

K6LPL and the bogus QSL cards

In connection with the phony QSL cards distributed by Dr. Dave Gardner, K6LPL, and possibly others, we have excerpted from Directors' Letter #1774, dated 15 July 1981, the following. This letter is from ARRL headquarters and is sent to all directors, vice-directors and assistant directors.

"On 21 January 1981, the DXCC Desk received an application from Dr. David G. Gardner, K6LPL, for endorsement to his mixed and phone DXCC awards. The DXCC personnel recognized that several of the cards submitted with the application were similar to cards which had already come to their attention as being possible forgeries; therefore, in accordance with the usual practice, an investigation was initiated to determine whether or not Rule 11 of the DXCC Rules, concerning altered or forged confirmations had been violated. On 26 February, while the investigation was in process, a second endorsement application was received from Gardner, also containing such cards.

"On 28 April, the ARRL Awards Committee reviewed the evidence collected to that point and determined that at least three cards submitted were forgeries. Action on possible disqualification from the ARRL DXCC program under Rule 11 was deferred pending receipt of evidence on other cards which were also possibly forged. Further evidence of forgeries were received and reviewed by the Committee on 8 July, at which point the Committee unanimously voted to disqualify Dr. Gardner from further participation in the DXCC program.

"While the investigation was in process, Dr. Gardner submitted a letter of resignation from the DXCC program dated 19 May. The letter made no reference to the matters which were under investigation; i.e., the submission of forged cards for credit on K6LPL's DXCC award. The Committee determined that the only possible way to proceed was to consider the communications from Gardner in the order in which they were received.

"Dr. Gardner has also been cautioned regarding the dissemination of blank QSLs for his own DX operations. No action has been taken on that matter at this time, since there is no evidence that such blank cards have been used improperly by DXers in making claim for DXCC credit."

This amateur is the second DXCC member to be disqualified for having submitted the counterfeit cards that came from the group which had been formed at the 1980 Fresno DX Convention. Action is still pending against others.

There is an article in the August issue of **73 Magazine** where Dr. Gardner makes an attempt to justify his actions, as for some reason he thought something was wrong with the system. I tend to disallow anything I read in that publication, mainly due to actions I have had with the publisher several years ago and the potshots he has taken at the ARRL and **CQ Magazine**.

Dr. Gardner is a member of the Southern California DX Club; I feel he gives that fine organization a slap in the face because of his actions. It is beyond me how a professional man such as Dr. Gardner can lower himself to attempt such an underhanded slam at the DXCC program. Perhaps Dr. Gardner thinks the whole thing is funny — and probably others who do not favor the DXCC program or ARRL. Really very sad, indeed. Several of us still remember another professional man who disillusioned us several year ago with his DX operations.

Desecheo Island

Jay Musikar, AF2C, sent us a nice note with our KP2A/D cards. Jay states that the operation may have been a record-setting operation with about 42,000 contacts made. The opening contact was on 20 meters with George DeGrenier, W1GKK, which put him as #1 on the DXCC Honor Roll.

As Jay is swamped with QSL cards, please be patient as he is working as fast as he can. Some amateurs have made it difficult by not including an SASE or not filling out their card properly, such as not using UTC. What surprises Jay is that this includes every class of amateur. You guys with an amateur Extra Class ticket, how come you are smart enough to pass the FCC exam, but can't remember to write UTC? DXers should know better!

Jay also reminds us that he handles only the KP2A Desecheo cards and not any other activities by John Ackley, KP2A.

RTTY

VK2TTY broadcasts a QST type DX bulletin covering RTTY DX on 21.095 MHz at 0130 UTC Sundays. This also includes other DX information pertaining to SSB and CW. You may send DX information for his bulletin to P.O. Box 860, Crows Nest, Sydney, AUSTRALIA. Mark your mail Attn: Broadcast Officer.

The above information was sent in by Bill Snyder, W0LHS, who also adds: "With the growth of RTTY, I suggest that we try and get DXpeditions to take a little RTTY gear along and work some of those who are searching for those rare contacts. I should think one or more of the RTTY computer-type manufacturers would loan a rig for DXpos. Recently, two Aland Island stations were on RTTY. The woodpecker causes problems with the weaker RTTY stations."

Bill also reports the following RTTY activity, frequencies in MegaHertz and times UTC:

EC6BR	21.090	1900
CN8BI	14.091	2100
YJ8TT	14.095	1200
		(Very active)
UK2BAB	14.097	2100
OH3CV/OH0	14.094	0300
		(May have QRT)
YU2OH	14.085	2000
UT5RP	14.092	0200
		(Another regular)
DU1EFZ	14.092	1100
CT2AK	14.089	0100
OE5GMM	21.090	1900

Now, if you RTTY DXers will send me the latest RTTY information, I will be glad to print it.

Very High Speed Club

The VHSC (Very High Speed Club) was founded by E. Haas, PA0LXL in 1961 in the interest of high speed telegraphy. The aim is to promote very high speed telegraphy as a means of self-realization for the individual radio amateur. The rules for membership have been set up in coordination with the existing members.

When you have contacted a VHSC member, ask him to send you his recommendation for VHSC membership. This can be done after completing a 2-way CW contact for at least 30 minutes at a speed of 200 letters per minute or higher. At five-letter groups, this would work out to be 40 words per minute. Solid copy should be made by the applicant, along with excellent keying. No keyboards or decoders are allowed during these contacts. After having four recommendations in your possession, send them with your application and 10 IRCs (or equivalent) to: Traffic Manager VERON; D.J. Hoogma, PA0DIN; Schoutstraat 15; 6525 XR Nijmegen; NETHERLANDS.

All applications should contain a statement that the applicant did not use a keyboard or decoder during the test contacts.

The membership list includes about 90 members with 28 of them DF/DJ/DK/DL. Stateside members include K9OKD, K9PLT, N9SW, W1JYH, W2HAQ, W4ML, W9WPU, WA2BQK, WA2YBR, WA3KOS. The Netherlands only have two members.

DXer's Awards Control Book

The Susquehanna Amateur Radio Society has designed a "control book" for keeping track of your cards and contacts for such awards as Five-Band DXCC, WAZ, WAC and DXCC. The book is in a 8½-by-14-inch format and lists 11 countries per page. Included with the book are two pages of instructions. The book sells for $6.50; personally, I feel you can make better use with your money. But for those of you who like everything done for you, I shall excerpt the instructions for review.

Each country has provisions for three calls, dates, mode and confirmation blocks for each band. Included with the country name is the prefix used by that country. Also, the WAZ Zone number is included. For some reason, I decided to look up Spratly Island to see what zone it was in as I was not sure. They list Zone 22, and I know that's not right as Spratly Island is in the South China Sea. It is either Zone 26, 27 or 28, but not 22!

The five-band section affords the opportunity of logging at least three different calls for each band. The three call or logging of three calls for each band was provided so as to facilitate record-keeping in being able to determine what mode you have worked the country on each band. With the provisions for three contacts per band, the mode such as CW, SSB or mixed, can be distinguished by using colored leads for the mode in question. RTTY fans can use the third mode in lieu of "mixed."

To obtain your record book send $6.50 to: Susquehanna Amateur Radio Society,

Propagation

Maximum Usable Frequency from Burbank, CA
(courtesy of W6LS)

The numbers listed in each column are the Maximum Usable Frequency (in MegaHertz) for contacting five major areas of the world (Nairobi, Tokyo, Melbourne, Frankfurt, Rio de Janeiro) for low fire angle antennas.

You can get a free *complete* set of these predictions for both high and low angle antennas, Maximum Usable Frequency (MUF) and Frequency of Optimum Transmission (FOT). Requests should be sent to W6LS, 2814 Empire, Burbank, CA 91504. Each request should be accompanied by a self-addressed stamped (28¢) envelope at least 9″ × 11½″.

NOVEMBER 1981

UTC	AFRI	ASIA	OCEA	EURO	SOAM
0100	28.0	39.2	36.4	15.4	27.6
0200	22.1	33.3	36.1	15.5	25.4
0300	19.2	27.8	31.9	14.6	22.6
0400	17.0	23.4	28.6	12.6	20.0
0500	14.6	19.6	25.9	10.9	17.9
0600	14.0	16.4	23.8	11.4	16.6
0700	14.3	14.4	22.0	14.1	16.4
0800	14.4	13.5	19.9	14.0	17.0
0900	13.8	13.4	17.8	14.5	16.9
1000	12.4	14.3	16.6	13.8	15.1
1100	10.8	15.4	16.4	13.1	13.0
1200	10.6	14.2	15.3	11.8	13.7
1300	13.5	12.8	13.3	13.3	19.2
1400	19.2	12.6	14.0	17.4	27.5
1500	25.5	15.2	20.6	24.4	34.9
1600	30.5	14.3	25.0	30.8	38.7
1700	34.2	13.1	24.5	28.2	39.1
1800	33.3	13.4	25.2	23.0	38.2
1900	33.5	16.0	27.3	18.2	37.5
2000	34.8	21.4	29.9	16.0	37.1
2100	35.9	29.3	31.7	14.4	35.1
2200	35.6	37.2	32.3	14.1	32.4
2300	34.2	42.0	32.9	14.3	30.0
2400	32.1	43.0	34.5	14.9	28.2

P.O. Box 326, Montoursville, PA 17754.

It is requested that payment be in the form of a check or U.S. Postal Money Order to expedite your order.

WPX Awards Manager

After serving as CQ Magazine's WPX Awards Manager, Bob Huntington, K6XP has stepped down and turned over the administration of the award to John Kroll, K8LJG. This changeover took effect on 25 July 1981. All future correspondence regarding the WPX awards program should be directed to: Mr. John Kroll, K8LJG, 3528 Craig Drive, Flint, MI 48506.

Our best wishes go to John, K8LJG, the new manager for this fine awards program, and thanks to Bob, K6XP, for his fine job of running the WPX ship.

California Award

If you do not reside within the 48 continental United States, you are eligible for the California Award. Radio amateurs in Hawaii, Alaska and all others outside of the United States can earn this attractive certificate offered free of charge from the Northern California DX Club.

To be eligible you must have proof of contact with 220 California amateurs, of which 20 or more are members of the NCDXC. Most members indicate such on their QSL cards. Prepare a list in alphabetical order showing UTC date and time, accompanied by the QSL cards confirming your contacts. Have it certified by an officer of any recognized Amateur Radio society or club, and send it to the Northern California DX Club, P.O. Box 608, Menlo Park, CA 94025 USA. If you choose to send your QSL cards, send enough IRCs for the return of your cards. Endorsements for bands or modes may be applied for. All contacts must have been made since 1 October 1946 when the NCDXC was formed — the first incorporated DX club in the world.

Feedback

I received a note from R.K. Harris, W3EH, who wishes to see news of DXpeditions to countries *before* they leave the DX country. Well, so would I! Much of the news on DXpeditions used here is taken from the various DX newsletters, and many of the DXpeditions have been given too short of a notice. That may be fine for the newsletters, but it doesn't pan out too well for the monthly publications. **Worldradio** does have an advantage over the other Amateur Radio monthly publications in that the lead time is shorter.

To emphasize my point, I received an announcement of a DXpedition to Juan de Nova that was to take place between 30 August and 8 September. Unfortunately, this was received the end of July, about two weeks late. The information was mailed from Reunion Island on the 18th of July, already past my deadline. If you worked Jean Bouygues, FR7BP or FRØFLO, both portable 'J' or 'E' during that period, that was the above DXpedition.

George Morrow, W8BKP is a new subscriber to **Worldradio** and is interested in the Antique QSL Department. George wants to know if Xerox copies of cards are suitable for publication. Yes, they are. That is provided it is a satisfactory copy and the detail is retained. Xerox copies have been used in the past. The countries George listed, SN1AA (Ascension Island), China, French Indo-China, Danzig and Saarbrucken have already been run. But these countries can always be repeated, preferably with different calls.

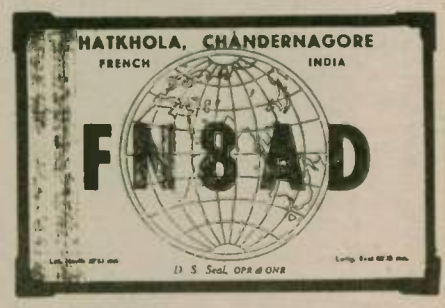
Of course, the originals are preferred over copies as they reproduce better. Your cards will be returned to you.

Antique QSL Department

Al Miller, VE7KC, provided this old-time Soviet QSL card. The date is 30 March 1936 for a contact made with UE3EI in Moscow. Comment on the card reads: "u were the loudest stn herd in this time". As to what became of UE3EI or the operator, it is unknown here.

The other two cards here are for former French possessions. FN8AD was the call used for a station in Hatkhola, Chandernagore, French India. This DXCC country was deleted 1 November 1954 when it became part of India.

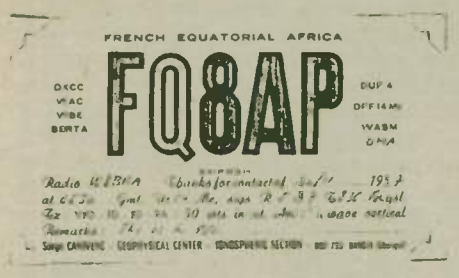
Deleted countries



Deleted 11-1-54
Now part of VU-India

W8BRA made the contact with FQ8AP back in 1957. The contact counted as French Equatorial Africa at that time, which became another deleted DXCC country 16 August 1960, when the coun-

try was split into Cameroon (TJ), Central African Republic (TL), Gabon (TR), etc. The call FQ8AP was assigned to Serge Canivenc, F8SH. Does anyone know if Serge is still active? He is still listed in the Callbook (1980) as F8SH.



Deleted 8-16-60
Split up — now TJ-Cameroon, TL-Central Africa Republic, TR-Gabon, etc.

Thanks to Dave Kennedy, N4SU, who submitted these two cards. Dave was signing with W8BRA in the 1950s.

QSL routes

A9XDA	—N4BPP	C31WM	—PA0GIN
A9XDD	—K7DVK	C31WS	—PA0GIN
A9XDO	—KA4S	C31WW	—VK2DGS
AH2L	—W4PKM	C31YL	—DJ9ZB
AH4AA	—W5RU	CE0AE	—WA3HUP
AO5IC	—EA5ZQ	CH2AR	—VE3BCC
C5ACC	—WA4VDE *(See Note 1)*	CI4IV	—VE4RM
		CJ3VM	—VE3LVN
C5ADU/6W8	—DK9KD	CS0OF	—WA3HUP
C21BS	—VK5ABD	DF7NM/KX6	—DF7NM
C31DM	—F5HX	DF9OO/JW	—DF9OO
C31LM	—EA3BDW	DJ5CQ/3A	—DJ5CQ
C31ML	—EA3CBQ	DJ0UN/5V5	—DJ0UN
C31NL	—PA0OOM	DK2XN/TZ	—DK2XN
C31NM	—PA0GIN	DK9XS/CT3	—DK9XS
C31SW	—F5MF	ED8BVR	—EA8UA
EF8AK	—EA8CR	S2BTF	—W5RU
EK8R	—UJ8JJJ	SP2AOY/OA4	—SP2UU
EL2AG	—WA4VDE *(See Note 1)*	ST0AS	—DK2OC
		SV0AA/5	—N2OO
EL2P	—WD9DUF	T5DX	—I2YAE
F0GAG/FC	—I0GPY	T5M1	—I0SSW
FB8YH	—F3KH	T32AB	—N7YL
FB8YI	—F3KH	TG9TU	—K4CLA
FC0FRV	—DJ2AA	TI9FAG	—TI2FAG
FG0ALN/FS	—K4II	TL8AV	—WA4VDE *(See Note 1)*
FH8CL	—I1KFB		
FM0GCD/FS	—W8GT	TL8CN	—W5RU
FO8HH	—KA3AKA	TL8DC	—F6EWM
FO0FB	—WB6GFJ	TL8DG	—F6EWK
FO0NP	—OH2NP	TL8JM	—W5RU
FP0GNS	—VE3CXL	TL8WH	—W5RU
FR7BP	—W0AX	TL8WZ	—DA1WR
GB2WED	—G4IVJ	TN8VT	—K5VT *(See Note 2)*
GB4RWD	—G4K1U		
GJ3ZAY	—G3ZAY	TR8AC	—W5RU
GJ5DPM	—SM5JKM	TR8GDC	—W5RU
GU3YJI	—G3YJI	TR8MX	—F6FFR
GU5DYP	—DL4FL	TU2JT	—F6CXV
GW8GT	—GW4BLE	TU4BE	—WA6RUJ
HB0ALO	—HB9ALO	UK1PGO	—UK3SAB
HH2MJ	—KA3ARF	VE1BLI	—W3HNK
HH0N	—WD4JNS	VK4ANS/LH	—ZL1AMO
HS5AID	—AG6D	VP2AZI	—HB9AQH
HT1CTJ	—HK3LT	VP2KAW	—VE2EWS
HT2JAZ	—YN1MAT	VP2LGR	—W5RU
I2NYN/IH9	—I2DMK	VP2VDG	—W4KA
IJ7ET	—I7RJO	VP5RAC	—VP5WJR
J20DI	—JA2KLT	VP8ZR	—G3KTJ
JG3JLY/JD1	—JG3CKF	VQ9JJ	—W5RU
JW5NM	—LA5NM	VQ9KT	—K6TQ
JX2BZ	—LA7JO	VQ9QA	—N3QA *(See Note 3)*
JX7FD	—LA5NM		
K8ZBY/KP2	—K8AV	VS5XU	—WA7NIN
KM6KC	—KA6ERF	VS6GS	—WA3HUP
KS6O/OH0	—KB6YU	VU2DUE	—W5RU
KX6OR	—AD1S	VU2WHO	—DF2EQ
OE8AJK/YK	—OE8AJK	W3WYP/DU2	—WA3HUP
OH2BR/OH0	—OH2BAD	W4MAT/SV5	—W4MAT
OH2OT/OH0	—OH3CV	W6SOT/3A	—DA2KR
OH0AC	—OH2VN	WB0ICS/KH7	—WB6FBN
OJ0AM	—OH2BAD	WD4CEM/KH4	—W5RU
OJ0MA	—OH0NA		
OK6OK	—OK1KSO	WD4REE/KH2	—W1CS
OX3HB	—HB9APJ		
OY1KH	—W1JTI	WD5FTP/5N4	—WB5ZAM
OY5CD	—EI8H	WH4AAA	—W5RU
OY8KH	—W5RU	WH4AAA/KH7	—W5RU
P29VV	—ZL1VV		
PA3AKP/3A	—PA3ARM	XB1OX	—WD8NKT
PA3BFX/LX	—PA0CWA	XZ5A	—JA8BMK
R2PR	—UP2BEB	XZ9A	—JA8BMK
YB1AEG	—HB9AJD	6Y5JT	—J6LT
YB2ACN	—W8VX	7P8BZ	—K5VT *(See Note 2)*
YJ8RA	—K6SY		
YO0WUG	—YO3FU	7X4BL	—K4CNW
YS3RZ	—WB3LUI	8P6NP	—9Y4NP
YS9RVE	—WA0JYJ	9G1LL	—K5LBU
ZD7SE	—KA1DE	9K1AA	—DJ9ZB
ZD8TC	—N2CW	9K2EZ	—W8MPW
ZF2AU	—W4MLA	9L1WS	—G2MI
ZF2DT	—N5BET	9N1BMK	—JA8GYQ
ZK1XO	—HB9BUX	9Q5AV	—K5VT *(See Note 2)*
ZS3E	—K8EFS		
ZZ5BI	—PY5JU	9Q5VT	—K5VT *(See Note 2)*
3C0AB	—EA9EO		
4K1A	—UK3XBP	9U5AV	—K5VT *(See Note 2)*
4N3EY	—YU3EY		
4X4OT	—WD8MDV	9U5JM	—WA4VDE *(See Note 1)*
5N0FCA	—W3GKK		
5W1DJ	—ZK1CG	9U5WR	—SP6FER
5Z4CM	—W5BCB	9V1UQ	—K5BLV
5X5FS	—EI9G	9X5MH	—WA4VDE *(See Note 1)*
5Z4RL	—WA4VDE *(See Note 1)*	9X5SP	—DL8OA
5Z4VY	—JA2KLT		
A4XCA	—P.O. Box 981, Muscat, Oman. *(See Note 4)*		
A4XIH	—P.O. Box 981, Muscat, Oman. *(See Note 4)*		
A4XIY	—P.O. Box 981, Muscat, Oman. *(See Note 4)*		
A4XHJ	—P.O. Box 981, Muscat, Oman. *(See Note 4)*		
EA9HY	—Rafael, P.O. Box 340, Melilla, via Spain		
ED1ISI	—EA1ANG, P.O. Box 1, Malpica, Coruna, Galicia, Spain.		
FR0GGL	—P.O. Box 386, St. Pierre, Reunion Island, via France		
HC4BB	—P.O. Box 3822, Manta, Ecuador		
JY9RC	—Ray, P.O. Box 3414, Amman, Jordan.		
TI9VVR	—TI2VVR, P.O. Box 6, Hatillo 1300, Costa Rica.		
WH8AAJ	—P.O. Box 3910, Pago Pago, American Samoa 96799		
9L1DS	—David, P.O. Box 614, Freetown, Sierra Leone		
9X5MB	—P.O. Box 367, Kigali, Uganda.		

Notes:
1. This QSL route applies only for contacts made by Ed Richmond, W4MGN.
2. Use the California address for K5VT which is as follows: Dr. Vinson Thompson, 4028 Perlita, Apartment #4, Los Angeles, CA 90039.
3. Use only the 1981 Callbook address for Calvin Coursey, N3QA.
4. I.C. Frith, G4GIR is not the QSL manager for these stations.

DARC discourages West Coast activity

Strong statement? Perhaps; but after examining the results of the 1980 European DX Contest, I can't help but think that way, even though it may not be true. I have listed the USA winners and their scores for the CW portion of the contest:

K1VTM (op. K1JX)	956,900
W1ZM	923,244
WB2FZO (op. WB2SJX)	776,720
K1GQ	773,694
K1UA	506,064
K3FD	440,608
WB2VYA	418,026
K2IGW	304,524
N6AR	262,114
AK1A	255,432
AC2U	253,638
K5KLA	216,204
K9BG	175,764
K4BAI	146,250
W8LU	87,125
W7JYW	52,299

Obviously, the larger scores will be from the East Coast as Europe is in their backyard. Europe is not always open into the West Coast 24 hours a day, which is a

(*please turn to page 32*)

"Cents-ational."

IF shift, digital display, narrow-wide filter switch

TS-530S

The TS-530S SSB/CW transceiver is designed with Kenwood's latest, most advanced circuit technology, providing wide dynamic range, high sensitivity, very sharp selectivity with selectable filters and IF shift, built-in digital display, speech processor, and other features for optimum, yet economical, operation on 160 through 10 meters.

TS-530S FEATURES:

- **160-10 meter coverage, including three new bands**
  Transmits and receives (LSB, USB, and CW) on all Amateur frequencies between 1.8 and 29.7 MHz, including the new 10, 18, and 24 MHz bands. Receives WWV on 10 MHz.
- **Built-in digital display**
  Large, six-digit, fluorescent-tube display shows actual receive and transmit frequencies on all modes. Backed up by analog subdial.
- **IF shift**
  Moves IF passband around received signal and away from interfering signals and sideband splatter.
- **Narrow/wide filter combinations**
  Any one or two of three optional filters . . . YK-88SN (1.8 kHz) SSB, YK-88C (500 Hz) CW, YK-88CN (270 Hz) CW . . . may be installed for selecting (with "N-W" switch) wide and narrow bandwidths on CW and/or SSB.
- **Wide receiver dynamic range**
  Greater immunity to strong-signal overload, with MOSFET RF amplifier operating at low level for improved IMD characteristics, junction FETs in balanced mixer with low noise figure, and dual resonator for each band.
- **Built-in speech processor**
  Combines an audio compression amplifier with change of ALC time constant for extra audio punch and increased average SSB output power, with suppressed sideband splatter.
- **Two 6146B's in final**
  Runs 220 W PEP/180 W DC input on all bands.
- **Advanced single-conversion PLL system**
  Improved overall stability and improved transmit and receive spurious characteristics.
- **Adjustable noise-blanker level**
  Pulse-type (such as ignition) noise is eliminated by built-in noise blanker, with front-panel threshold level control.
- **RF attenuator**
  The 20-dB RF attenuator may be switched in for rejecting IMD from extremely strong signals.
- **Optional VFOs for flexibility**
  VFO-240 allows split-frequency operation and other applications. VFO-230 digital VFO operates in 20-Hz steps and includes five memories and a digital display.
- **RIT/XIT**
  Front-panel RIT (receiver incremental tuning) shifts only the receiver frequency, for tuning in stations slightly off frequency. XIT (transmitter incremental tuning) shifts only the transmitter frequency, for calling a DX station listening off frequency.

More information on the TS-530S is available from all authorized dealers of Trio-Kenwood Communications 1111 West Walnut Street, Compton, California 90220.

Matching accessories for fixed-station operation:

- SP-230 external speaker with selectable audio filters
- VFO-240 remote VFO
- AT-230 antenna tuner/SWR and power meter
- MC-50 desk microphone

Other accessories not shown:

- VFO-230 remote digital VFO with 20-Hz steps, five memories, digital display
- TL-922A linear amplifier
- SM-220 Station Monitor
- KB-1 deluxe VFO knob
- PC-1 phone patch
- HS-5 and HS-4 headphones
- HC-10 digital world clock
- YK-88C (500 Hz) and YK-88CN (270 Hz) CW filters and YK-88SN (1.8 kHz) SSB narrow filter
- MC-30S and MC-35S noise-canceling hand microphones

KENWOOD
. . . pacesetter in amateur radio

Specifications and prices are subject to change without notice or obligation.

40 W, 15 memories/offset recall, scan, priority, DTMF touch-pad

TR-7850

Kenwood's remarkable TR-7850 2-meter FM mobile transceiver provides all the features you could desire, including a powerful 40 watts RF output. Frequency selection is easier than ever, and the rig incorporates new memory developments for repeater shift, priority, and scan, and includes a built-in autopatch touch-pad (DTMF) encoder. A 25-watt output version, the TR-7800, is also available.

TR-7850 FEATURES:

- **Powerful 40 watts power output**
  Selectable high or low power operation. High 40-watt output provides reliable signal for wide area coverage.
- **15 multifunction memory channels, easily selectable with a rotary control**
  M1-M13...memorize frequency and offset (±600 kHz or simplex). M14...memorize transmit and receive frequencies independently for nonstandard offset. M0...priority channel, with simplex, ±600 kHz, or nonstandard offset operation.
- **Internal battery backup for all memories**
  All memory channels (including transmit offset) are retained when four AA NiCd batteries (not Kenwood supplied) are installed in battery holder inside TR-7850. Batteries are automatically charged while transceiver is connected to 12-VDC source.
- **Extended frequency coverage**
  143.900-148.995 MHz, in switchable 5-kHz or 10-kHz steps.
- **Priority alert**
  M0 memory is priority channel. "Beep" alerts operator when signal appears on priority channel. Operation can be switched immediately to priority channel with the push of a switch.
- **Built-in autopatch touch-pad (DTMF) encoder**
  Front-panel touch pad generates all 12 telephone-compatible dual tones in transmit mode, plus four additional DTMF signaling tones (with simultaneous push of REV switch).
- **Front-panel keyboard**
  For frequency selection, transmit offset selection, memory programming, scan control, and selection of autopatch encoder tones.
- **Autoscan**
  Entire band (5-kHz or 10-kHz steps) and memories. Automatically locks on busy channel; scan resumes automatically after several seconds, unless CLEAR or mic PTT button is pressed to cancel scan.
- **Up/down manual scan**
  Entire band (5-kHz or 10-kHz steps) and memories, with UP/DOWN microphone (standard).
- **Repeater reverse switch**
  Handy for checking signals on the input of a repeater or for determining if a repeater is "upside down."
- **Separate digital readouts**
  To display frequency (both receive and transmit) and memory channel.
- **LED bar meter**
  For monitoring received signal level and RF output.
- **LED indicators**
  To show: +600 kHz, simplex, or -600 kHz transmitter offset; BUSY channel; ON AIR.
- **TONE switch**
  To actuate subaudible tone module (not Kenwood-supplied).
- **Compact size**
  Depth is reduced substantially.
- **Mobile mounting bracket**
  With quick-release levers.

More information on the TR-7850 is available from all authorized dealers of Trio-Kenwood Communications 1111 West Walnut Street, Compton, California 90220.

KENWOOD
...pacesetter in amateur radio

Matching accessory for fixed-station operation:
- KPS-12 fixed-station power supply for TR-7850

Other accessories not shown:
- KPS-7 fixed-station power supply for TR-7800
- SP-40 compact mobile speaker

Specifications and prices are subject to change without notice or obligation.

TR-7850 is subject to FCC approval.

WITH THE HANDI-HAMS

Bruce L. Humphrys, KØHR

All modes considered

Anyone who has looked at this column, and that of Armond, K6EA, knows the wonderful advantages of the International Morse Code for communication, and my support of it. To be really fair, however, we should take a look at other modes of Amateur Radio communications. (Yes, Virginia, there ARE other modes!!) There must be advantages of each mode; otherwise, nobody would be on phone (or teletype, or SSTV, or whatever). Let's take a look — a hard look — at each of these modes, and even some communications techniques not really considered "modes."

Phone

Why not take the biggie first? We can break down this general category into three general subsections: SSB, AM and FM.

SSB: (For you purists, yes, SSB *is* AM — the whole title is Single Sideband Suppressed Carrier. If you transmitted Double Sideband, Exalted Carrier, it would be what we call "AM".)

Single sideband has a number of communications advantages. First of all, it's relatively easy these days to generate in a transmitter, and easy to detect in a stable receiver. 'Twasn't always so, of course. The first SSB transmitters sounded more like Donald Duck than ol' Donald did himself. Altho' the good old boys always blamed it on the receivers . . . and with good cause. The standard receiver used for SSB detection in the "OLD DAYS" (say, 1953 or so) was, at best, a two-handed affair. One hand on the Bandspread Dial and one hand on the BFO (Beat Frequency Oscillator, Clyde). But now, SSB is a lot easier to handle. Modern circuitry and components make it effortless.

Another good thing about SSB is its narrow bandwidth — about 2.8 kHz, nominally. Furthermore, since we usually transmit only one sideband, the other sideband is available for other communications duties. For example, a net control could conduct a roll call on the upper sideband, while a traffic controller could be directing stations to traffic frequencies on the *other* sideband, same frequency. Granted, this takes pretty careful tuning, but it's certainly possible.

With its narrow bandwidth, SSB doesn't take up as much spectrum space as some other modes. This means you can pack as much or more intelligence (I *know* I'll get some arguments here, HI) into a bitty piece of the spectrum as you would be able to over a much larger piece of the spectrum using a different mode. Now, that may not be *technically* true, if you use the argument that the amount of intelligence determines the bandwidth. But, let's say — for purposes of comparison — that a weather report given over SSB to a maritime mobile Amateur Radio station has as much intelligence as a soap opera on TV. Enuf said?? Single sideband is pretty reliable, too. Once you get the hang of being able to copy a person's voice with only about 2,600 cycles per second of timber (that's audio talk, son), it's really pretty easy to figure out what the other guy is saying, even through some pretty heavy interference.

And that brings up another point — about phone operation in general. Some CW buffs are kinda snobby about their liking the code. Won't even touch a microphone. They say (I admit, sometimes I catch myself saying so, too) there's a real *skill* involved in CW — but *any dummy* can *talk* into a microphone. Not so. Well, of course, almost anyone *can* physically talk into a microphone, but that doesn't mean he's making any sense, or that he's modulating the rig well, or things like that. Kinda reminds me of a definition of Citizen's Band: A governmental project to determine if intelligent life exists on the planet. None has been found so far . . . (so help me, that's the *only* and *last* joke about the Citizen's Radio Service you'll get from me!)

Anyway, there is a technique involved in operating phone, and it's acquired through a lot of practice, just as good CW is. So don't ever chide a phone man 'cuz he doesn't get on the Macho Mode (CW). If he's a good operator, it'll show just as immediately on phone as on any other mode.

Now — how about **AM**? Does this mode — Ancient Modulation — have a place in modern amateur communications? Most certainly it does. Without question, it is wasteful of spectrum space and power, and is subject to phase distortions which sometimes make it difficult to receive. But it has a legitimate place as a research tool, if nothing else. Not too many fellows on the air today remember checking into 10-meter nets using a Heathkit "lunchbox" with 3 watts of AM and a superregen receiver. More's the pity. Maybe more of us would have a little bit more respect for courtesy and good operating techniques if we'd had that experience under our belts.

But wait a minute! Many do!! It's that Citizen's Band again. Most of the rigs in use on CB still use AM — and indeed, many of the fellows on the ham bands are converting CB units over to 10 meters and bringing back that old charm. If there is *absolutely no other* benefit of AM, there is this: on AM you flipped a switch on the transmitter from "receive" to "transmit" — and then talked. The carrier (and your voice) stayed "on" as long as that switch was in the transmit position. No VOX. No plugging long ahhhhhhs in between words. You could speak natural like. What a joy! This "ancient" mode would be great just for voice training, if nothing else!

Now, **FM**. Frequency (and its associate, Phase) Modulation has been the booming baby of the '70s. Probably no other single mode has attracted newcomers as "2-meter FM." Mind you, *many* newcomers would just say, "2-meters," meaning "FM," but forgetting that 2-meters was an AM band long before FM!

Anyway, FM has some distinct advantages: freedom from *amplitude* type interference (like most car noise and lightning), and high fidelity. The high fidelity, of course, takes up more bandwidth, but with VHF frequencies we have more bandwidth to play with. Just as with SSB, FM (or PM) is no longer difficult to manufacture. In fact, what with all these microminiature multiple purpose integrated circuits, it's all done for us in a tiny black box.

And, since the detection scheme does not detect amplitude type interference, you can

squelch the audio output nicely when you don't want to listen to the "rush" of white noise (which is amplitude interference). Makes for quiet radio . . . Makes for happier wife . . . Makes for longer marriages . . . etc.

There is a good technique and a bad technique associated with FM operation, too. I won't presume to get into it here (especially since I'm a CW snob!), but you can recognize it immediately on the air. It's a skill which is learned, just like good Morse code tapping.

And on to the more "exotic" modes — SSTV, FSTV, RTTY, Fax, and satellite communications. All of these have advantages which are not found in the other, more popular modes.

SSTV

Allows you to show yourself to others on a mode of operation which is wonderfully compatible with SSB — in fact, uses SSB as its mode of transmission. You can even prerecord pictures on an ordinary cassette tape and play them at will to your SSTV contacts.

Fast Scan TV

Here we have all the benefits of Slow Scan, without the bother of waiting eight seconds for the whole picture to show up. This allows us to actually *move* the camera or subject. Also, color transmissions are easier on Fast Scan. The trouble is, of course, that we need a lot of bandwidth — so UHF frequencies are required. But there's even an advantage to that — you almost *HAVE* to build your own. Something *unheard* of on the HF bands! Anytime we get into a mode where we have to roll our own, we're better off for it.

RTTY

This is almost a hybrid between CW and SSTV. It's faster than CW, but doesn't carry quite as much stuff per minute as SSTV. It's an old mode, however, and one very well suited to message handling — even when the station is unattended. The same COR which is so necessary in FM repeaters can "turn on" a page printer hooked up to a receiver and allow traffic to be transmitted.

One more "mode" to consider: Satellite communications, namely . . .

OSCAR

True, you can transmit almost any other mode through the satellites, but working stations through an Amateur Radio satellite is, in my estimation, a whole new communications field.

While it doesn't take much in the way of sophisticated equipment to operate OSCAR, it does take skill and savvy. You have to deal with Doppler Effect, rapidly changing antenna orientation (both horizontal *and* vertical), antenna polarization, satellite rotation, etc. There are so many things you can experiment around with — even just sitting there and being *calm* about hearing your own signal being re-transmitted by a satellite hundreds of miles in space.

With each of these modes there are skills involved. Maybe that is their biggest advantage — both individually and collectively. When we say it takes *skill* to be an amateur, we can certainly mean that it takes a *whole bunch of skills*! Each mode has its own requirements, and its appropriate place in our communications. We should *never*, as responsible amateurs, become so mired down in one mode that we don't explore the others. If we do, we're missing out on an awful lot of fun hamming.

Rather obviously, some modes are more appropriate to persons with certain handicaps than others. But let's never forget that what has made Amateur Radio great today are the innovative solutions to problems discovered by radio amateurs. Don't say you'll never operate Slow Scan if you're blind. Someday, there'll be a way. Finding that way is a challenge — but it's a major part of Amateur Radio.

After all . . . if *all* we did was yack to each other, why then, we'd be no better than that OTHER (ooops, I promised!!) . . . □

Blind girl beat the odds

ED: Without Amateur Radio this woman's life might have turned out very differently.

Submitted by Rosemary Willis

When Lucy Ching was born in China some 40-odd years ago, blind girls were sold as slaves. Lucy, who went blind at the age of six months, was luckier; her parents took her to a doctor.

The doctor, a Briton, told them: "To be blind does not mean being useless. It is up to you to make sure your child leads a useful, happy life. Do not let her become an emotional cripple."

The person most impressed by the doctor's words was the baby's nurse, Ah Wor. Now in her 70s, Ah Wor still lives with Ching, who calls the nurse the heroine of her life.

Ah Wor took responsibility for the blind baby and helped her fight for an education as she grew. Ching's intelligence was keen, and she became very interested when she heard how blind children in Europe and America could read with their fingers.

She asked her brother — an Amateur Radio operator — to send a message requesting information about this exciting system. A doctor in Manila, who was also an Amateur Radio operator, heard the plea and promised to get the information from America.

Two months later, a parcel arrived in Canton addressed to Ching, containing a crude Braille outfit. It was the start of her formal education. Ching worked deter-

(*please turn to page 32*)

Vern Hansen, WB6UWQ/AAA9W

The following article, entitled "The Navy-Marine Corps MARS Antarctica Network" was prepared by Jack C. Southerland, W4FSE/NNN0PPA, and Thomas F. Pollock, WB6ZYE/NNN0RUH.

The Navy-Marine Corps MARS was established in 1963 — some time after the Army and Air Force MARS — but developed rapidly since that time in establishing CW, RTTY and phone patch networks within the United States and around the world.

The Antarctic continent became of scientific interest following the explorations of Admiral Byrd and several courageous explorers from other nations. Several nations participated in "Geo-physical Year's Programs," studying the scientific aspects of the continent. The scientific research program was formalized in the United States under the direction of our Division of Polar Programs of the National Science Foundation.

In order to provide the huge logistic support required by the U.S. participants, the Coast Guard was tasked with the job of providing ice breakers; the Air Force with providing mail and personnel transportation; Navy surface ships with transporting fuel, people and heavy equipment; and the U.S. Navy construction battalions with building the base and airfield and maintaining the facilities at McMurdo Sound.

As the project developed, the summer contingent of scientists and Navy support personnel averaged between 800 to 1,000 people. In the "winter over" period from about March to September, the personnel dropped to about 20 to 30 scientists and 40 to 50 Navy support personnel, who continue the maintenance of the station and provide communication and medical support.

During this "winter over" period, the area is in total darkness for a good portion of the time, is subject to very high winds, foul weather, extreme cold temperatures exceeding -100°F with the chill factor, and there are no provisions to land aircraft. Consequently, these people are completely cut off from communications with their loved ones at home except for phone patches and RTTY messages by the Navy-Marine Corps MARS or Amateur Radio circuits.

The Chief, Navy-Marine Corps MARS established the Antarctic Net in March 1967 to provide suitable RTTY and phone patch communications services. The amateur bands had proved to be inadequate because of the excessive interference encountered when the propagation was good.

The first Navy-Marine Corps MARS station was established at McMurdo Sound with the very appropriate call sign of N0ICE (later calls became NNN0ICE). In 1969, Palmer Station was established with the present call of NNN0KMR. Later, Siple Station was established with the call of NNN0ICF and the South Pole Station with the call NNN0NWB.

Some 31 stations scattered about the United States volunteered for the net. A total of 3,823 patches and RTTY messages were handled in the first year, and the following year 8,449 were handled. By 1970, the total figure reached 31,500.

In 1967, the Director of Polar Programs of the National Science Foundation wrote, "Year after year, scientists and support personnel isolated at our Antarctic stations depend on Navy-Marine Corps MARS operators to maintain contact with their folks back home. One U.S. winterer has observed that morale and performance vary in direct proportion to the number of telephone patches. I have heard many comments that corroborate that statement".

The Navy MARS Antarctica Net may be considered to be a small operation when compared with other CW and RTTY nets which have handled millions of messages, but to the dedicated scientists responsible for researching the scientific aspects of the Antarctic continent and to the many Navy and Coast Guard personnel who have supported the operation, there can be no equal. □

Blind girl

(*continued from page 31*)

minedly by herself, teaching herself to read and write Braille.

Today Ching is a well-known member of Hong Kong's community. She is a government social worker, responsible for working with the blind and with the aged, and has been honored by the community.

—Excerpt from article in Los Angeles Times, written by Frena Bloomfield of Gemini News Service □

Concrete 'Z' a success

Ed Sanders, WA6VJP

The Point Mugu Amateur Radio Club, WD6BZS, had trouble getting an RF Signal out of the all steel and concrete structure which was the Los Angeles Convention Center. From 9 April to 12 April 1981, the Point Mugu Amateur Radio Club set up a station at the Los Angeles Convention Center for the annual IAU Exposition. The purpose was to show handicapped individuals how they too may become Amateur Radio operators, even though totally blind, deaf or with several mobility problems. All the elements were there for a successful exposition with the exception of one; we could not get a signal out of the building ... that is, not until Jerry Kessler, WA6CAM, with his antenna expertise, aided by Laura Linder, WB7UZY and Bill Chandler, N6BED, strung up (or should I say *down)* approximately 100 feet of #12 wire.

The Convention Manager would not permit anything to be strung overhead, on any of the walls or structures — only on the floor; one official said this was because of pedestrians and wheelchair traffic. One hundred feet of wire was taped to the concrete floor in a "Z" configuration across aisles, through doorways, down ramps, into a patio, and eventually outside and then — the last 10 feet up in the air — to a small tree. After that, through an antenna tuner it produced stations from Minnesota, Colorado, Washington, Oregon and Nevada, as well as many California stations on both SSB and CW. The concrete "Z" long wire was a success!

Another feature of the exposition was Dick Linder's 60 wpm teleprinter station, which was set up by WB7OND "DICK IN OXNARD" and relayed through the southern counties Amateur Teleprinter Society Repeater on 146.70/10. WD6AZP "GABBY IN OXNARD" was the contact point for demonstration at the other end. The portable station consisted of a 5/8-wave antenna to an ICOM 22S Transceiver. The audio was processed with a HAL ST-6 MODEM and a XITEX Corp Video Board used with a TV set. In contrast to the new technology, a Model 15 teleprinter was used to print the hard copy and type replies. This display showed how amateurs send messages and communicate using a keyboard instead of a microphone or CW key. The computer hooked to the repeater provided a source of interest as the "TIME" could be read out in command, status of operations listening and any "MAIL" waiting.

During the period of use, one station was seen writing a message for the "MAIL". Boyd Crawford, K6RD kindly phoned the SCATS Pix Manager, K6ZDL "NORM IN TORRANCE" and three examples of RTTY art at its best were shown to the delight of passersby. Interested parties had a hand in typing their "HANDLE" and passing "73s" to GABBY from the Los Angeles Convention Center Station; to their surprise he would print a reply using their names, and "it was done without wires." A good time was had by all.

The low frequency station on 14 kHz was worked both CW and SSB by Edward Sanders, WA6VJP, demonstrating to handicapped individuals the possibility of their involvement in Amateur Radio. Some of the assistive devices consisted of an audio frequency counter, Braille and talking clocks.

Bob Clark, K6BGU joined Ed in providing information to the handicapped patrons. He was indeed the ambassador of goodwill for Amateur Radio!

This three-day experience taught us a valuable lesson; all public buildings should have access to some type of antenna. There may someday be a great need for communication at the emergency level and public buildings will no doubt be communication centers. □

DX World

(*continued from page 27*)

disadvantage when competing with the East Coast.

The DARC (Deutscher Amateur Radio Club) awarded several certificates to the second U.S. call area, where only one was listed to a sixth area amateur, even though stations such as Ed Redington, K6AW and Philip Goetz, N6ZZ had reasonable scores, (202,510 and 87,963). Notice that the score by K6AW was higher than that of John Laney III, K4BAI on the East Coast. (Sorry John, I am not picking on you).

Further down on the list we have Gerald Brunning, K9BG and Kenneth Schang, W8LU with lesser scores, but since they were the first in their call areas, they were awarded certificates. I would think it would be easier to work into Europe from the Midwest than here in California. Another gross error, obviously an oversight of the DARC, was Dale Jones, K5MM/7, with a score of 168,268 not being credited as the winner in the seventh U.S. call area. His score was more than three times that of the credited winner.

I would propose to the DARC that they take into consideration the distances between Europe and all parts of the United States. We should not have to have the East and West Coasts competing with each other. Award the certificates by call area, with second and third place considered by: 1) the score of the winning station in that call area and 2) the number of entries in that call area.

This is not an attack on the DARC, as I try to participate in their European DX Contest every year and participate in their very fine program, which includes the DLD-100 and Europa Diplom.

Thanks to the following: W6GO, AF2C, W0LHS, K6XP, W3EH, FR7BP, W8BKP, VE7KC, N4SU, N5CID, W6ISQ, N2UN, N5NO, KI7I, Susquehanna Amateur Radio Society, VERON, Lynx DX Group, *The DX Bulletin, DX News Sheet, The DXers Newsletter,* and the *Long Island DX Bulletin.*

I hope you had a good summer. Now that fall is approaching, perhaps now is the time to check if your antenna farm is in shape for the winter. Be prepared, as two good contests are coming up. The last weekend in October and November we have the World-Wide DX Contests, sponsored by CQ Magazine. Lots of good stuff is usually found in these two contests. Very 73 es GL DX! de John, N6JM. □

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ICOM

AMSAT OSCAR K6PGX

Dr. Norman L. Chalfin

Amateur satellite for scientific studies = UOSAT

An Amateur Radio satellite with a purely scientific purpose is what might be the best description of the UOSAT which may have been launched successfully by the time you read this.* Amateurs throughout the world will have an opportunity to participate in at least one of the experiments proposed. This can be accomplished simply by listening to the beacon signals from the four HF transmissions. Phase coherent signals will be transmitted simultaneously on 40, 20, 15 and 10 meters and radiate a couple of hundred milliwatts each. With reasonably equipped radio receivers, anyone who tries will be likely to hear the beacons.

Despite the QRP levels of these signals, there is a special relationship of the phase output of each of the beacon signals: the phase relationship remains constant, or phase-locked. Each of the phase coherent beacon signals leaves the UOSAT antennas with the same phase relation to the waves of the other beacons. They depart the spacecraft in step with one another.

On their way to your receiving antenna, these waves may change their respective phase relationships to one another. They will be delayed differently as a function of frequency and the electrical density of the medium through which the signals are being transmitted. As the waves pass through the various layers of the ionosphere, the phases will become jumbled. They will add algebraically — some adding, some subtracting.

Electromagnetic waves, such as from a remote source like the UOSAT in orbit about the Earth, have known characteristics at their origin. For example, their phases are constant at the point and time of origin. The UOSAT propagation experiment involves the measurement of the phase after the signals have passed through the jumbling layers of the ionosphere on their way to your antenna. Path differences resulting from different refracted path angles to your antenna of each of the four signals modify the original phase relation in a manner which provides you with a tool for measurement of the refractive index of the medium through which the waves are being propagated.

By knowing the refractive index, or the electrical density of the path between your receiver and the satellite, you can determine the state of the ionosphere. From it you can "map" the ionosphere.

The equipment necessary to develop a simple plot of position versus electron density is not very complex. Details of such apparatus are being generated by the University of Surrey group of AMSAT UK which has designed and built the UOSAT and its experiments. When available, the details will be reported in this column.

Basically, you will require equipment which can receive the four HF beacons. The beat frequency signals resulting from the heterodyning of the four signals contain the desired phase difference information. A construction article can be expected to appear in a future issue of AMSAT's **Orbit Magazine** describing the equipment necessary to extract the phase information.

In setting up to receive the HF beacon signals, horizontal wire antennas are recommended. Verticals will not work.

The phase information extracted from the beat frequency signals will be fed to a computer for processing and can be expected to give you a sort of real time map of the propagation characteristics of the ionosphere in the path between the satellite and your QTH.

To generate the density profile above, your QTH data from the spacecraft telemetry and tracking information will be used in conjunction with a software program. A CRT display may provide you with a visual indication of the path conditions in the region above your home location.

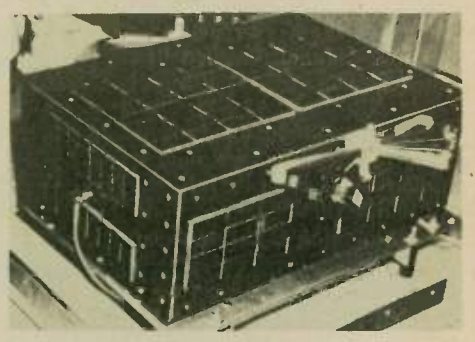
ASR hablo espanol!

The recent visit to AMSAT's spacecraft laboratory of AMSAT-Mexico President Dave Lieberman, XE1TU, has begun to show results. Dave announces that he has translated *ASR* #11 to Spanish for amateurs who wish to read AMSAT's bi-weekly in their native language. Dave's effort is designed to increase the awareness of Central and South Americans, in particular, of progress in the world of Amateur Radio satellites. If you would like to obtain Spanish language editions of *ASR*, please contact Dave directly or write to *ASR* at our Editorial Offices: David Lieberman, XE1TU; AMSAT-Mexico; Bosque de Sayula, 22; Mexico 10, DF; Mexico. *ASR* Editorial Office: AMSAT Satellite Report; P.O. Box 177; Warwick, NY 10990.

In addition, Dave has been discussing the merits of a Spanish language AMSAT net on the HF bands. Again, the objective is to spark interest in Latin America in the amateur space program. If you have any ideas on the net, you may contact Dave or the *ASR* editor at the respective addresses above.

AMSAT/OSCAR-6 Launch Anniversary

15 October marks the 9th anniversary of the launch of AMSAT/OSCAR-6 (A/O-6). Until June of 1977, A/O-6 continued to function permitting thousands of contacts to be made through its mode A (2 meters in, 10 meters out) transponder. Although the spacecraft had a design life of only one year, amateurs enjoyed nearly five years of service through it. A great many specific experiments were conducted to demonstrate how, with relatively simple ground station equipment, a low-power spacecraft in a polar orbit can provide communications to



The AMSAT/OSCAR-6 spacecraft sitting on the bench at the NASA Lab at Vandenberg Air Force Base during the preparation for launch. The folded-up steel rule is one of the elements of the 10-meter dipole. When the spacecraft leaves the rocket, the rule extends out horizontally from the spacecraft. The 2-meter antenna whip is folded under the spacecraft on the left. Not seen is the 435 MHz antenna opposite the 2-meter whip. It is for beacon and command operation only. *(K6PGX photo)*

The JPL Amateur Radio Club Station W6VIO (Voyager In Outer Space) looked like this at the start of its Voyager II Saturn Flyby Commemorative operation. The Fast Scan Color TV monitors are at left. The Slow Scan TV monitors are at right. Those in the shack at the time were (left to right): George Morris, W6ABW; Jay Bastow, K6CV; Merv MacMedan, N6NO; Jim Lumsden, WA6MYJ; Art Zygielbaum, WA6SAL; and Mike Rafferty, WA6RNQ. *(K6PGX photo)*

remote areas where the usual communications facilities are not available — whether in a disaster or other emergency or because the area is remote from normal communications channels.

Mode A signals from amateur spacecraft were heard in the Arctic polar region when the aurora borealis wiped out other HF signals. The Canadian Aviation Authorities conducted experiments with OSCAR-6 during simulated downed aircraft emergencies using ELTs. It was found that the ELT could be located via satellite receiving the signal in 1/8 of the time many aircraft crisscrossing the area of interest would require.

Usually the location was from one orbit to the next. With A/O-6 this was about 115 minutes. It could be located within the time of a single pass, which was about 20 minutes. The first Slow-Scan amateur TV signals were transmitted through A/O-6, and the first electrocardiograms were sent across country as well.

Carl Schultz, W6CG has reported that on occasion he can bring up A/O-6, but weakly. Its batteries were described by Jan King, W3GEY as "probably turned to jelly."

**This is being written during the second week in August. According to the SME (Solar Mesosphere) Project Manager, the UOSAT could launch anytime between 16 and 25 September.* □

Space Shuttle cards are out

Keith Hoyt, K6GXO

The QSL cards for the K6OX Space Shuttle operation are now in and will be distributed immediately to those who have sent in cards.

Although nearly four months have passed since the historical first landing, the quality of the QSL card should make the waiting worthwhile. The design for this card was begun during the operation so as to best put together "something special." The signatures on the face of the card were obtained from the astronauts themselves just for this card.

The operation was planned to last two days and 1,000 QSOs, but the end result was almost five days and over 3,500 QSOs. All bands 10 through 75 SSB were operated as conditions permitted, but only one transmitter at a time could be used so as to avoid any possible mix problems. Two meter FM was also used.

On behalf of the Antelope Valley Amateur Radio Club, I would like to express sincere appreciation to NASA; to NASA Dryden Director Mr. Ike Gillam and his staff for their outstanding support; the Air Force at Edwards; the Dryden Employee Exchange Council and the other generous contributors who helped make the special cards possible;

and of course those tireless individuals who manned both the station and the station's kitchen. Countless hours were spent on groundwork details by Gary Barr, WA6TWT.

Special thanks to astronauts Young and Crippen who risked their lives and did such an outstanding job.

Was it worth it? You bet . . . see you next time. □

Send SASEs to WB2LCC

AMSAT's QSL Bureau is swamped with unclaimed cards for about 800 different users. Anyone who's been on OSCAR for the past few years should be sure to have an SASE on file with WB2LCC.

—HR Report □

Radar goes into action

On page 21 of our February 1981 issue, we ran a story entitled "Fund-raising is a BIG success" by Mike Reik, WB9YJF—Trustee of Illiana Repeater System, Inc. The article told of the Danville Exchange Club's 2½-year project of setting up a weather radar system in Vermilion County, Illinois, and of the success in raising funds for the project. As of December 1980, the county had raised $21,000. Mike Reik recently sent us a letter and clipping from **The Commercial-News** *saying the system has been installed and is now in full operation.*

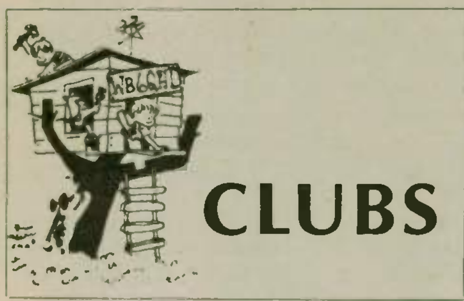
The radar is a new, state-of-the-art Sperry shipboard-type radar. It operates in the X band, some 9000 MHz with ERP of 50kW pulse. Its maximum range is 200 miles.

Since Vermilion County is out of effective range of NWS (National Weather Service) radar, this unit will now afford the citizens and the WX spotters precise data on direction of travel, wind speed and severity of any storm.

On Saturday, 25 July 1981, the radar—operated by ESDA (Emergency Service and Disaster Agency) Director John Shaffer and RACES Director Ed Gielow, WD9AFB—tracked a storm system from Peoria, Illinois (90 miles northwest of Danville) to and through the Danville area. Their accuracy in travel speed and volume of rain was 98 percent!

Many members of the Illiana Repeater System helped in the door-to-door campaign of raising funds, and over two dozen club members are members of ESDA RACES/ARES and are NWS-trained WX spotters. The club also gave a cash donation to the project. Except for $5,000 paid by the city of Danville and $5,000 paid by Vermilion County and some United Way funds, the radar system was financed through private donations and community fundraisers, Shaffer said. Total cost of equipment and installation was $33,000.

Area Amateur Radio operators and members of the Illiana Repeater System who gave many hours of help included: Mike Reik, WB9YJF; Ed Gielow, WD9AFB; Jan Mayer, KB9GS; Bill Baker, WD9AFD; Lawrence Petry, K9BJM; and Bob Thomas, K9ZKA. □



Compliments given at Fiesta Days

Steve Brandt, WB6VVS

Thanks to 13 volunteers from the Crescenta Valley Amateur Radio Club, assistance for any of the 1,100-plus participants of the La Canada Fiesta Days Run was available at a moment's notice.

This annual Memorial Day event, sponsored by the Crescenta-Canada Family YMCA as a part of the La Canada Fiesta Days celebration, includes one mile, five kilometer and 10 kilometer events.

The radio club members, each equipped with a 2-meter hand-held radio, provided essential support communications, and doubled as guides and course monitors.

All radio activity took place on the club's 146.625-146.025 repeater WA6FEQ/RPT. The only request for assistance was quickly handled by the Los Angeles County Fire Department Paramedics.

Many good compliments were received by the club members from various sources including the professional new media covering the event and the Los Angeles County Fire and Sheriff's Departments. The club also received a handsome plaque of appreciation from the YMCA, and this writer was interviewed by one of the television crews covering the event. They were very impressed with the quality of the volunteer work at the race. □

The officers of the Staten Island Amateur Radio Communicators are, from left to right: Treasurer Ralph Gergenti, WA2KQN and wife Kathy; President Jay Gerstel, KA2CUS and wife Joan; KA2GTK; Secretary Lou Cirrotti, KA2BPC and wife Sue; Vice President Joe Asciutto, KA2AAY and wife Lillian. *(Photo by Frank Mirandi)*

Prime example of club activity

The Staten Island Amateur Radio Communicators have risen in a few short years to become one of the more active and popular Amateur Radio organizations in the country. On 1 May 1981, S.I.A.R.C. kicked off its annual gala dinner dance, held at one of the more exclusive catering halls in the area. With friends, relatives and 95 percent of the membership present, it was truly a meeting of fraternal enjoyment. The affair turned out to be such a success that the dance committee chairman, Ralph Gergenti, WA2KQN, has announced that plans are already in progress for attaining the hall and the same entertaining band for next year.

Over the years, S.I.A.R.C. has assisted in all island-wide and some city-wide public service events. Recently, in conjunction with a local amateur repeater club, they were engaged in providing communications for the coordination and medical emergency rescue units during the March of Dimes Walk-a-thon. They have been affiliated with the Civilian Amateur Radio Patrol of the New York City Police Department and have played an important role in numerous emergency situations. They have also assisted in providing communications during the New York City Marathon and the Cancer Care Walk-a-thon.

Additionally, Jay Gerstel, KA2CUS, president of the organization, and Ken Moshier, WA2OGV, have been proud owners of the KA2CUS repeater. Many of the S.I.A.R.C. members have joined this machine and use its facilities during many public service events. This 447.757/447.525 MHz machine's ideal location gives its members exceptional range for almost all events.

In addition to their Amateur Radio equipment, a number of members are mobiling in four-wheel-drive vehicles. The added advantage is obvious in emergency conditions.

They are extremely active in keeping the 10-meter band alive. Sponsoring the Staten Islander Chapter of the 10-10 International, you can find these dedicated amateurs on Sundays at 12:00 noon Eastern local time and on Monday evenings at 8:00 Eastern local time at 28.745 MHz.

The S.I.A.R.C. general membership meets once a month at the Northfield Savings Bank, Richmond and Castleton Avenues on the third Thursday at 8:00 p.m. All amateurs are cordially welcome. They are currently planning to begin Novice classes and other exciting activities.

To sum it up, the Staten Island group truly live up to what Amateur Radio is all about. Their slogan, which appears each month on the front cover of their membership newsletter, reads: "Unity and strength through radio communications." That's what S.I.A.R.C. is all about. □

Field Day lesson

As with all operations, there were some lessons learned. We learned that in the field, survival is the primary concern. Attention to detail is most important. For example, the campsite had potable water available by a handpump, but if you are without a wash pan or a bucket, then keeping clean becomes inconvenient.

Moreover, in an area known to have snakes, spiders and scorpions, it is best to sleep above the ground or in a tent. Also, in a hot environment you must drink a lot of water and keep covered from the sun; a canteen and broad-brim hat are useful.

In summary, put more effort into your survival needs than basic equipment needs. Usually, a minor equipment oversight will not degrade the overall field operation. However, to operate at all, you must have staying power, which depends upon your survival preparedness. Prepare so that you can eat, sleep and work in reasonable comfort. This way you can be at your best in the inhospitable environment of the field.

— *Spectrum, Victor Valley ARC, CA* □

QUARTER CENTURY WIRELESS ASSOCIATION INC.

Ethel Smith, K4LMB
National Director

The QCWA election brought a number of changes and four new faces to the Board of Directors. The new president is Stuart Meyer, W2GHK. Secretary is Hugh Turnbull, W3ABC. Directors include Vic Clark, W4KFC; Larry Harvey, N6LY; and Ron Hessler, VE1SH. Leland Smith, W5KL moved from director to vice president and Ethel Smith, K4LMB moved from secretary to director. Leo Meyerson, W0GFQ was re-elected as director and Art Monsees, W4BK was re-elected as treasurer. It was a hard-fought election with more than 4,000 votes being cast.

The new Board members will be installed at the annual meeting and convention in Cleveland, Ohio on 26 September. An open board meeting will be held on Saturday and all members are invited and encouraged to participate. Pre-registrations indicate there will be a good attendance to welcome the new team. The convention is being held at the Harley Hotel in Cleveland, Ohio. We hope to see you there.

President-elect Stu Meyer has put emphasis on the potential of QCWA to accomplish a leadership role in the future of Amateur Radio. He is particularly interested in taking a more active role in FCC matters, with emphasis on the impact this agency has on the concerns of QCWA members — and Amateur Radio in general. He does not intend, however, to change the fraternal nature of QCWA and he will continue to emphasize the good fellowship aspect which has made QCWA great. Write to Stu about your thoughts, concerns and suggestions. You will find he, and all Board members, are anxious to hear from you.

Special honor will be paid to several QCWA members at the convention. Bill Halligan, W4AK/W9AC will be inducted into the QCWA Hall of Fame. John DiBlasi, W2FX (first president of QCWA) and Gus Gironda, W2JE (long-time secretary) will enter the "Roll of Honor." Lew Sieck, K4NE has been named QCWA Man of the Year.

QCWA Scholarship

Winners of this year's QCWA Silent Key Memorial Scholarships have been announced. They are Stephen Ketler, WA1WFA of Bridgewater, Massachusetts and Gary Myers, WA2CUN of Skaneateles, New York. The QCWA scholarships offer a $500 grant to "worthy students who are radio amateurs." The scholarships are administered by the Washington, D.C. Foundation For Amateur Radio in conjunction with six other scholarships which range in value from $900 to $300. Applications are accepted in May of each year. For further information, write QCWA Scholarship Chairman Leo Meyerson, W0GFQ, or contact QCWA Headquarters.

It is hoped that continuing contributions to the scholarship program will make it possible to establish a self-sustaining fund that will provide more and larger awards in the future. Many chapters and individual members send contributions in memory of Silent Key friends. Please keep it in mind. It is a very worthwhile program and every dollar helps.

Watch for the QCWA column in future issues of **Worldradio**. And check in to the QCWA International Net on Sundays at 2000Z on 14346. □

VISIT YOUR LOCAL RADIO CLUB

ARIZONA

Metropolitan Amateur Radio Club
J.C. Penny Restaurant, El Con
Tucson, AZ 85726
Call in on 34/94 K7CC/R
Every Saturday morning — 8:00 a.m.

CALIFORNIA

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

Lake Elsinore Valley Radio Club
Wildomar Elem. Sch. (corner Palomar Rd. & Central)
Take Baxter Rd. turn off 71 Freeway
Monitor 146.55 simplex
3rd Thursday/monthly — 7:30 p.m.

Marin Amateur Radio Club (Founded 1933)
Coop Meeting Room
71 Tamal Vista Blvd.
Corte Madera, CA 94925
1st Friday/monthly — 8:00 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

Sonoma County Radio Amateurs, Inc.
Box 116
Santa Rosa, CA 95401
3400 Chanate Rd.
1st Wednesday/monthly — 8 p.m.

S.C.A.T.S./WB6LBU
S. CA Amateur Transmitting Society
P.O. Box 1770, Covina, CA 91722
Cortze Park Rec. Hall
1st Monday/monthly — 7:00 p.m.

Stockton Amateur Radio Club
University of the Pacific, Room 122
2nd Wednesday/monthly — 7:30 p.m.
Club repeater net roll call:
Wednesdays 8:00 p.m. — 147.165/765

Tri-County Amateur Radio Association
Pomona First Federal Savings and Loan
399 N. Garey Ave., Pomona
Talk-in 146.625/025
For info. call (714) 985-8184
2nd Monday/monthly — 7:30 p.m.

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

Indian River Amateur Radio Club
P.O. Box Five, Cocoa, FL 32922
1st National Bank, Merritt Island
Cor. SR 3 and SR 520, Merritt Island
4th Tuesday/monthly — 7:30 p.m.

GEORGIA

Atlanta Radio Club
Box 77171 Atlanta, GA 30357
1st Thursday/monthly — 7:30 p.m.
Community Rm./Perimeter Mall Shopping Center
Call (404) 971-HAMS Net Sun. 9:00 p.m. 146.22/82

Columbus Amateur Radio Club (CARC)
David Nulty, N4ATI, Secretary (404) 687-3272
The Quonset Hut next to Food Stamp Center
Buena Vista Road at the "Spider Web"
2nd and 4th Thursday/monthly 7:30 p.m.

ILLINOIS

Radio Amateur Megacycle Society
Irvingwood Acacia Church
3900 N. Plainfield
Chicago, IL 60634
3rd Friday/monthly — 8:00 p.m.

Tri-Town Radio Amateur Club
P.O. Box 302, Hazelcrest, IL 60429
Above Hazelcrest Police Station
Net every Wed. 8 p.m./146.49 MHz
1st & 3rd Friday/monthly — 8 p.m.

INDIANA

Allen Co. Amateur Radio Tech'l Society, Inc.
P.O. 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
Ron Koczor, K9TUS
2512 Glenwood Ave., Fort Wayne, IN 46805
The Salem Church
3rd Friday/monthly — 7:30 p.m.

MISSOURI

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

NEW JERSEY

Glouster County ARC, W2MMD
PO Box 370, Pitman, NJ 08071
American Legion Post
Delsea Dr., Rt. 47, Clayton, NJ
1st Wednesday/monthly — 8:00 p.m.

Old Bridge Radio Assoc. (OBRA)
Cheesequake Firehouse — Route 34
Old Bridge Township, NJ
Daily 8 p.m. Net on 147.72/.12 MHz
3rd Thursday/alternate (odd) months 8 p.m.

NEW MEXICO

Eastern New Mexico ARC
First National Bank, Clovis
Box 206 • Clovis, NM 88101
(505) 763-6960/356-5993
2nd Tuesday/monthly — 7:30 p.m.

NEW YORK

Genesee Radio Amateurs, Inc. (GRAM)
PO Box 572, Batavia, NY 14020
State Civil Defense Center, Batavia
(behind NYS School for the Blind)
3rd Friday/monthly — 7:30 p.m.

Staten Is. Amateur Radio Comm. (SIARC)
Northfield Savings Bank (side entrance)
Richmond and Castleman Avenues
Call KA2CUS (698-2006) or WA2KQN (981-0372)
3rd Thursday/monthly — 8:00 p.m.

OHIO

Ashtabula County ARC
Ken Stenback, A18S (964-7316)
County Justice Center
Jefferson, OH
3rd Tuesday/monthly — 7:30 p.m.

C.A.R.S. (The Clyde Amateur Radio Society)
Gary A. Kauffman, WB8MUG, Secretary
2nd Tuesday/monthly — 7:30 p.m.
Community Rm., City Building, Clyde, OH
Repeater 147.075/.675 MHz

Champaign-Logan Amateur Radio Club
John Wentz, W8HFK, President
2 Meter Net, 147.60/00, Tuesdays, 9 p.m.
Dinner meeting, 1st Thursday/monthly
Dajolees Restaurant, West Liberty, 7 p.m.

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

NOARS (Northern Ohio ARS, Inc.)
P.O. Box 354, Lorain, OH 44052
K8US (216) 988-2345/near OH T.P. Exit 8
3rd Monday/monthly — 7:30 p.m.
K8KRG/R 146.10/70 — 144.55/145.15 — 449.8/444.8

TENNESSEE

Lakeway Amateur Radio Club
Roy A. Zeigler, Activities Mgr.
Rt. 11 Box 61, Morristown, TN 37814
State Area Vocational School
Last Thursday/monthly — 7:30 p.m.

Oak Ridge Amateur Radio Club
Dick Church, N4ARO (615) 482-9054
Oak Ridge Civic Center
W4SKH/R 146.28/88
2nd and 4th Monday/monthly — 7:30 p.m.

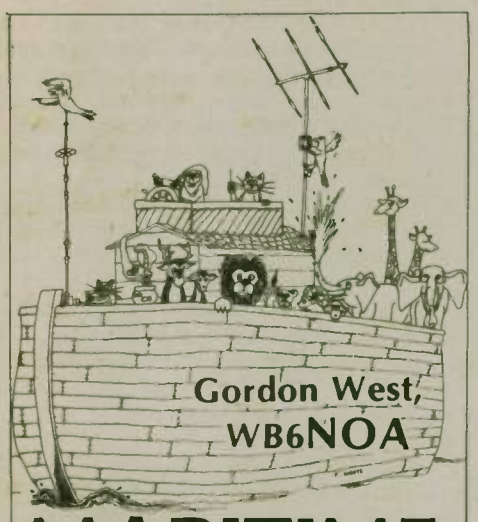
TEXAS

Garland Amateur Radio Club (GARC)
146.775/146.175 K5QHD/R (info Net Mon. 8 p.m.)
Garland Women's Activity Building
713 Austin Street, Garland
4th Monday/monthly — 7:30 p.m.

VIRGINIA

Southern Peninsula Amateur Radio Klub (SPARK)
P.O. Box 9029, Hampton, VA 23670
Call Steve Silsby, WA4BRL (804) 599-6877
VEPCO Bldg. (Pembroke and G St.)
1st and 3rd Wednesday/monthly

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



Gordon West, WB6NOA

MARITIME MOBILE

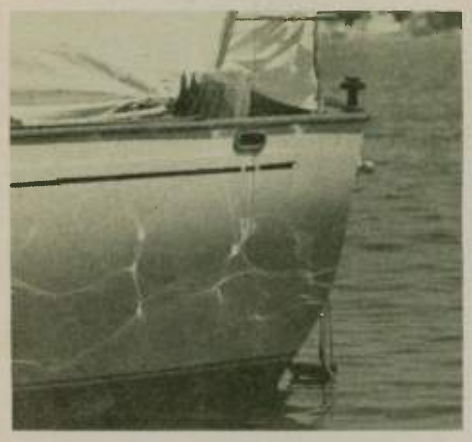
Sailboat HF antennas.

Last month we took a look at high frequency antennas for powerboats. Let's now take a look and see what may be used aboard sailboats to cover 10 meters through 160 meters.

Mobile whips

Mobile whip antennas have proven themselves on the back of your trusty old mobile. They are easy to install, tune up quickly, and do a fairly decent job in earning S-9 reports.

Most sailboat enthusiasts will locate a mobile whip system on the stern transom. The ball mount is probably the easiest to use for feeding the whip and coil assemblies. You may use either screws or bolts to mount the ball assembly on the deck or directly into the fiberglass stern transom.



Ball mount on stern transom

When selecting a ball mount, try and find the most expensive one available. Cheap ball mounts may fracture and you'll lose your whole whip assembly overboard. Less expensive ball mounts will corrode to the point that they literally disintegrate. If you are fortunate enough to have an old, completely stainless steel ball mount from the good ol' days, use it! The better the ball mount, the better results you are going to have.

You will feed your ball mount with good quality RG-8 coaxial cable. The coax runs between your transceiver and the inside connection point to the ball mount. Separate the center conductor and the braid so you have approximately 3 inches of each. The center conductor goes to the center screw of the ball mount. The braid must be grounded at the base of the ball mount.

Since the ball mount is going into fiberglass, you will need to provide a solid ground surface to terminate the coax. You may wish to run a jumper between the end of your cable and the toe rail. Life lines also make a good ground.

Running wide copper strap from the base of the ball mount down to your keep bolt is another good ground system.

Under no circumstances should the coax terminate into a non-grounded ball mount base. Without grounding of the far end of the coaxial cable, you may find that high voltages could appear on the chassis of your equipment. Always make sure and ground the far end of the ball mount antenna system!

Last month we described several manufacturers of mobile whip assemblies that may be used in conjunction with the ball mount. "NOA" reminds you to bring along a *pair* of everything you bring aboard! Sooner or later you are going to lose that 20-meter coil overboard when you are leaning back trying to screw it into the mast assembly.

Your mobile mast may be angled aft up to 45 degrees without any significant deterioration of your signal. In fact, it's a good idea to angle it aft to prevent someone from holding on to it while standing on the stern in the middle of the night watch. I will not go into detail what it feels like to be standing on the stern, doing your thing, while holding on to the antenna when someone inadvertently transmits. Ouch. Enough said.

Disadvantages of the mobile whip assembly on the stern of your sailboat would be the fact you need to change coils every time you change bands. You also may need to readjust the resonator lengths when there are small changes in the rigging around the antenna. Remember, in heavy seas, it's not wise to be running back aft and leaning over the stern to change coils.

Dipoles and inverted Vee's

Another series of popular antennas for sailboat use is the dipole or inverted Vee. These may be hoisted aloft from a flag hallard. Using a 1:1 balun, most inverted Vee's perform quite nicely aboard sailboats. They are a snap to put up, and most of the time you may want to go ahead and leave them up. Most inverted Vee's are somewhat directional. The surrounding rigging may also affect the radiation pattern of this antenna.

Signal reports between an inverted Vee and the mobile whip assembly should favor the inverted Vee. The more amount of wire you can get up and radiating, the better your signal. Mobile antennas have little wire — inverted Vee's have plenty of wire.

The dipole is another good antenna. You may wish to use your dipole vertically, hoisting the top leg and letting the bottom leg dangle. Try and run your coax off at an angle to prevent coupling of RF into the braid of the coaxial cable.

Coil changes necessary for band changes

Several mariners have tried, with success, multi-band trap dipoles described in last month's article. You can even try running these antennas like an inverted Vee with good results. I have also tried running this antenna as an inverted L, feeding it in the center with interesting results. Try it yourself.

Back Stay antennas

The ultimate — a Back Stay. Your Back Stay offers plenty of wire at a good takeoff angle for your HF installation. Your Back Stay will be used in conjunction with a good solid ground system that we will describe next month. The Back Stay will be a random length of marine stay cable selected by a marine rigger. Insulators will isolate the Back Stay from the rest of your rigging.

The Back Stay will require an antenna tuner to resonate it. The antenna tuner must be capable of a low impedance output.

You can identify antenna tuners that will work well with a Back Stay by the single wire (long wire) output wing nut connection. Inexpensive mobile tuners have only coaxial cable output for 50 ohm systems. This generally will not work.

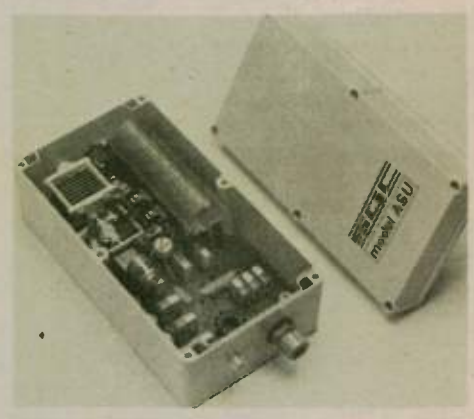
For years, mariners have used the Unique tuner, but Dentron, Nye, Cubic, Drake, and Kenwood tuners have also been used with much success.

The Cubic tuner, ST-3, from Swan Corporation in Oceanside, California, is a favorite among mariners because it offers a variety of outputs, to include long wire, and features dual metering to simultaneously observe forward power and reflected power. This makes tuning a random length of Back Stay wire a snap.

The feeding of your Back Stay system must honestly be a trial and error project. First try RG-8 coaxial cable that will connect from the 50 ohm output of your tuner directly to your Back Stay. The center conductor goes to the insulated Back Stay, and the braid connects to the other side of the insulator into your ship's ground system. Use a Kerney Nut supplied by a rigger to make the compression connection between the center conductor of your coaxial cable and the insulated Back Stay. Use another Kerney Nut to connect the braid to the grounded bottom section of stay.

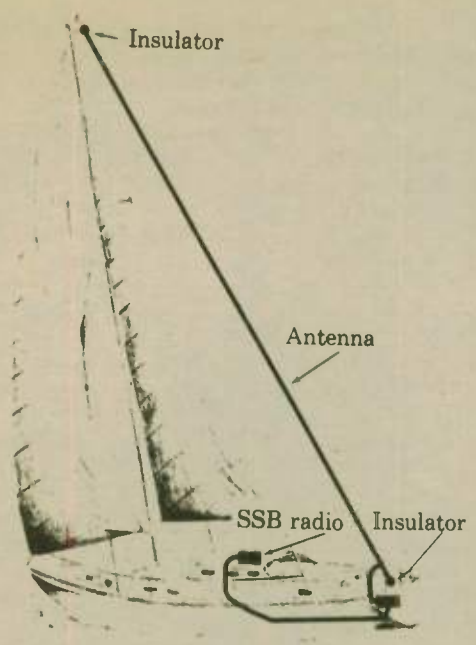
Now go back to your tuner and try to tune up the Back Stay antenna. If the Back Stay antenna offers a radiation resistance between 25 and 70 ohms, the coaxial cable feed system may work well for you. Try it out on the air and get some signal reports. If you hear plenty of stations but can't work them, the coaxial cable assembly may be acting as a dummy load.

If you find that when you transmit, the chassis of your radio is "hot," once again the coaxial cable may be working against you.



Fixed tuner for remote mounting

Another way of feeding a Back Stay is to run a long wire between the low impedance



Back Stay configuration
(Courtesy Motorola)

output post of the antenna tuner and your Back Stay. Single wire is used. The most preferred wire is high voltage neon cable wire. This cable is commonly called "GTO-15" in the high voltage neon cable industry. You may pick up this cable at a marine electronic specialist outlet or at any neon cable company. It offers the highest degree of arc-over protection through the extra heavy-duty insulation.

Run this wire separate from all other wires back aft. In no case should this wire be run parallel to any metal or any other grounded wires. Remember, this is part of your horizontal antenna installation.

Bring the wire up through the deck through a water-tight Perko fitting. Make sure not to parallel any grounded stays as you route the wire up to the point it is connected to the insulated Back Stay.

Now tune up your antenna system, and you may find this will work well where coaxial cable feeder systems did not.

NEXT MONTH — Boat grounding systems. □

Loading coil for 160 meters

If your club is involved in any emergency situations send the story and pictures to WORLDRADIO.

See your group in print — your story may help others be better prepared.

U.S. QSL SERVICE

Laryl Myers, N7BMY

Greetings from USQS and thanks for your continuing (and growing) support.

For those reading this column for the first time, we are an incoming and outgoing bureau that handles U.S. and Canadian-bound QSLs. We handle only QSLs that can be claimed by a USA/Canadian amateur in his or her SASE. For details, and any cards you may have on file, send a legal-size SASE (18 cents postage is enough). Our address is P.O. Box 814, Mulino, OR 97042.

We have reached the point where we can only hope to print a list of calls that have not been listed before. This month the list is only partial as compared to the cards we have received and are unclaimed. We have received over 2,200 cards this month and the fine folks at Worldradio would shoot us if we asked them to publish them all! HI!

If your call appears here or in any of the monthly lists we've had here since October 1980, please send an SASE to claim your cards. **Please specify how many cards per envelope you wish.** That way, if you only have one or two at this time, you can wait and get more for your money or get them as they come. We hope to have more than a couple at a time, but often at first, each amateur only has two or so. If you belong to a club or have ham neighbors and would like us to send your cards as well as others, we would be glad to do that also.

Till next month — 73, and QSL via USQS, Laryl Meyers, N7BMY, P.O. 814, Mulino, OR 97042.

Please claim cards for:

AK1A	N1AJR	N1AVL	N1BIQ
KA1A	W1AQS	KA1BEE	KA1BJH
KA1AAD	K1AR	N1BEJ	W1BL
N1AHN	KA1ASD	K1BHR	KA1BLB

(please turn to page 41)

Happy Flyers
HAMS & PILOTS

"THERE IS NO LIMIT TO WHAT YOU CAN DO – IF YOU DON'T CARE WHO GETS THE CREDIT"

INTERNATIONAL COMMANDER, Hart Postlethwaite, WB6CQW
1811 Hillman Ave., Belmont, California 94002 (415) 341-4000

International Vice Commander, Paul Hower, WA6GDC
Box 2323, La Mesa, California 92041 - (714) 465-5288

Medfly communications

By the time this column is printed and reaches you, we hope the California problem of the Medfly is well in hand. Some of the HAPPY FLYERS took part in providing radio communications for some of the Red Cross evacuation centers. Those participating did so as members of other authorized groups. The California Office of Emergency Services (OES) asked these various groups (sheriffs' communication teams, Amateur Radio RACES groups, Civil Air Patrol (CAP), etc.) to help, not only for the possibility of need during the nights of the aerial spraying, but also to evaluate the capabilities of various volunteer emergency service organizations.

The San Francisco peninsula, where the Medfly problem exists, is also considered a prime prospect for an earthquake in the near future. OES is attempting to get things in order, so that we can save as many lives as possible when that day arrives. I had just learned (the week before) that our Group 20 CAP Communications center was listed as a primary control point. We are complete with HF, VHF, RTTY and our own engine-driven electrical supply, but as most in CAP think in terms of Search and Rescue (SAR), we really have done very little preparation for that type of mission. Since we realized that OES was taking this opportunity to evaluate each group's capabilities, we decided to do the same for our own. We came up with some interesting observations that might be of interest to many readers. The San Mateo Radio Club members were at the same table with us.

Our first observation was that most of the groups involved in the communications portion were not really prepared for a call-out in a disaster situation. Radios, antennas, coax, extension cords, clipboards, message forms, etc., were not readily available in

One of the communications tables at the Medfly, Red Cross evacuation center in San Mateo. Four CAP (Civil Air Patrol) cadets manned the Civil Air Patrol radio on VHF FM. Ed Fairbanks manned the amateur station. He is the one with "civilian shirt" and headphones. We all learned a lot.

many of the centers. It appeared that people-power (bodies) were the most available, even though many of them had no background, training, nor much of a concept as to what was needed. Disaster communications is not the same as providing communications for a walk-a-thon.

During a major disaster, confusion is the rule rather than the exception. It is very easy for things to get lost in the system. As responsible communicators — either via Amateur Radio, CAP, sheriffs, Red Cross, or whatever — we need to give some thought IN ADVANCE to that which could be provided by us. Here are some to consider:

1) Those involved in any group who might be used officially in a disaster should have equipment prepared for rapid deployment. This would mean everything necessary to set up a station in a needed spot, without having to contact a number of different members for each piece of the station. An earthquake, for instance, could make it impossible for you to get an essential part of the emergency station from someone in another area of your town. Radio, power cords, coax, outside antenna, support pole and guys, battery, generators, and whatever might be needed should be in one spot. All interested volunteers should know how to gain access to the needed equipment. Whenever possible, backup equipment should be in the master plan.

2) Some sort of paperwork should be prepared for keeping records of the messages you send and receive. In our review, we found very few were prepared with a usable system of paper work. Some had "logs" of one kind or another, but most were designed along the lines of a typical radio log. These type logs were designed to record when a transmitter had been on the air, and who they talked to. Message content and destination individual were mostly ignored. In disaster work, it can often be very important to be able to review outgoing or incoming messages. In a major disaster, air time on a given frequency could be at a premium. Duplicate messages sent unnecessarily could waste valuable time. The time to evaluate your possible needs is before the fact — not during. If nothing else is available, a book of telephone message forms (in duplicate) could be used. The original should be kept in your own file, and the copy used to facilitate proper moving of the messages.

3) Deliver all traffic exactly as given to you. In medical emergencies, this can be very important. Some medical words sound alike. This is another reason for keeping a record in writing. If a question comes up as to what you sent, you will be able to produce a copy. During the Medfly communications we had a very interesting experience. Every hour, on the hour, each communications group was asked to send certain statistical information (number of personnel, volunteers, available cots, evacuees, etc.). The second night, the shelter manager came around about 20 minutes before the hour and asked me to send a message containing similar information. I asked for a copy, she had none, so I copied hers word for word, on a piece of paper. Within the minute I sent the message EXACTLY. After the acknowledgement from the main center, my commanding officer came on the radio and suggested that I should have used the words "evacuees none," rather than "victims none." I looked at the message and reported that I had passed the traffic EXACTLY as it was given to me. He responded that I had done the right thing then. As it turned out, most of the groups given the message changed the word victim to evacuee.

As a communicator, we are not to change the content or wording of a message. One could have asked if this is what was really meant, but we should not assume an error. As it turns out, we were correct, since the Red Cross has a standard format that they wish to have followed. I guess we got an "A" for accuracy. This was a moot point in this case, but changing words could be disastrous.

4) If you accept traffic over the radio and it is destined for a specific individual or department, *SEE THAT IT GETS DELIVERED!* Too often, people in volunteer

communications will accept traffic, then let it die at the station. If it cannot be delivered, the one accepting the traffic should see that a message is sent to the party who originally sent the message, letting them know it could not be delivered. This way, something important can be followed up via other means. In the rush of a real disaster, you may be in no position to tell how important a given message is. Sometimes a message has a meaning other than the obvious words you passed. News media and others are known to monitor emergency channels. In CAP, we are not to radio information about airplane crash survivors. We can request a helicopter in some cases, but general information is usually sent to the mission coordinator via the nearest telephone.

5) If you are relieved from your position as radio operator after a time on duty, be sure you inform the new operator the status of all traffic. If you are waiting for a reply from someone, be sure he knows about it, and when something should be done if no reply is received soon. Even in an exercise, we should take our job of volunteer radio message handler seriously. We are creatures of habit. If we acquire good habits, they will come naturally when the real thing happens. Bad habits, unfortunately, also tend to appear in stress situations. A life may depend on you someday!

6) Send all traffic quickly and efficiently. A good share of most local disaster communications are now sent via FM. We all know how clearly FM can be understood under most circumstances. As radio amateurs, we are familiar enough with RF propagation to quickly learn how we should be sounding to a given station in the network in use. When we know we have a "full quieting" situation between us and the party receiving our message, it makes little sense to send every letter of every word phonetically. This is especially true when we are sending messages that contain very familiar words that we use often.

Those of us involved in SAR communications and flying are very familiar with the letters VFR (visual flight rules) and IFR (instrument flight rules). These three letters tell a pilot if the weather is such that one may fly without an instrument flight plan being filed with the FAA. Since IFR and VFR do not sound alike, if we know we have clear communications, it makes little sense to waste air time by saying India, Foxtrot, Romeo instead of IFR. Use common sense, so that you can pass the traffic properly with the least amount of air time. This means that with a little forethought, one can go faster on known phrases, and slow up (or use phonetics) in text areas which appear difficult or critical.

7) Have a plan prearranged for call-up of your group's volunteers. Who can respond during work hours? Who will get out of bed at 3:00 a.m.? Can all the volunteers drive, or will they have access to a vehicle at all given times? Do you have a plan to check on your own loved ones' safety? If your coordinator could not locate loved ones, and took off to find them, what would your group do? Now is the time to work on finding the answers — not in the middle of the disaster.

These are but a few of the thoughts we wanted to share with you. They tell us that an earthquake will hit California — the only question is WHEN! It behooves us to be prepared as possible. Due to my work with various SAR organizations, I have attended numerous meetings on preparedness. Those who read this that live in the earthquake zone should consider some of the other plans for personal preparedness that are available from your local authorities. Give them a call; they will direct you to the proper parties.

ARRL and jammers

The HAPPY FLYERS recently received a number of calls from the ARRL. They are in the process of assembling material on interference, to be sent to all ARRL clubs. I have seen much of the material, and it looks very good. We were happy to give them permission to copy the HAPPY FLYERS book on Radio Direction-Finding and the RF environment. It will be included in this free package. We hope it will prove useful.

Remember, look at the whole problem in your area. Tunnel vision can contribute to accidents. No matter how fired up or angry you get, *ignore jammers and their antics!* This has been proven over and over again, all over the United States. Do not talk about jamming or jammers on the air. We do many things in life that we do not talk about in mixed company. Place jammers and jamming in that category. □

Silent Key

James Moses, WB6ZST — a General Class licensee and an active HAPPY FLYER — was killed on 17 August 1981 in an airplane collision over San Jose, California. The accident occurred when Moses was landing his high-wing Cessna, and was overtaken by a Cherokee low-wing plane. □

USQS

(continued from page 39)

W1BPM	W1LQQ	W2AW	WA2JAS	N2XU	KA3GCI	W4BVA	WD4HXI	
KA1BXA	KA1LR	N2BFH	WA2JYR	WA2YEX	W3GM	N4BWX	N4IB	
VE1BYW	W1MME	N2BLT	K2KAA	W2ZAI	K3GT	KB4CD	K4IDG	
WA1CCR	AK1N	W2BMK	WA2KGT	KD2Z	W3GXK	K4CEB	WA4IDN	
W1CED	W1NHJ	KA2BNL	W2KZE	WA2ZWH	K3HPG	KA4CEW	WD4IGD	
K1CO	KA1R	K2BQ	W2LBB		WB3IDK	KA4CIP	WD4IIS	
KA1CPI	W1RBL	KA2BZS	K2LS	WB3AKI	VE3JGC	N4CKH	KA4IQD	
KA1CVM	W1RIL	WA2CDV	KE2M	N3ANM	K3JNZ	K4CNW	N4IR	
KA1D	WA1RJW	N2CDV	WA2MFV	N3ARK	WB3JRU	N4CT	KC4IT	
KA1DUW	W1RR	KA2CFH	WA2MHY	KA3ARQ	WB3JVU	N4DAG	KA4ITQ	
W1DVS	W1SE	WB2CFS	W2MT	W3AU	WA3JYV	WA4DAN	N4IU	
KA1EAP	K1SF	W2COK	KF2O	WB3BEL	K3KNH	W4DHC	W4IWZ	
KA1EBU	W1SGA	N2CQ	KJ2N	W3BHM	N3KZ	KC4DL	KA4IZU	
WB1EEM	WA1SMH	KB2CT	KJ2O	KA3BKY	VE3KZE	N4DMF	KU4J	
KA1EPL	W1TSP	W2CVM	WA2OHO	N3BOT	WB3LJS	N4DPT	KA4JBO	
WB1ESB	AB1U	WA2CYQ	WA2OIZ	K3BVQ	WB3LUG	W4DQL	KA4JCW	
WA1FCN	WA1ULE	KB2DE	K2POA	WB3CIW	W3MA	N4DSP	WA4JKH	
KA1FJH	WA1UVX	KA2DFQ	N2PP	KA3CSH	KB3MI	N4DVW	KA4JQS	
KA1FJR	WA1UZH	KA2DRE	K2QIE	KA3CWA	K3ND	K4ECX	K4KAH	
WB1FVY	AF1V	WB2EFQ	KJ2R	WD3DGE	KB3NF	WD4EEM	WD4KCW	
W1FYI	W1VV	WB2ERI	WA2RCB	WA3DMH	K3OCO	WD4EXG	N4KG	
W1GG	W1WA	AC2F	K2RF	W3DNP	N3RL	N4EZ	KA4KID	
K1GSK	W1WFM	W2FTY	W2SRN	K3DQ	K3SWZ	KR4F	W4KMS	
W1HAC	W1WJB	WB2GDD	WB2RWW	KA3DRO	K3TA	AA4FF	W4KO	
WB1HIH	W1WKD	WA2GUR	K2SS	KA3DRR	K3TBE	W4FFY	KA4KOZ	
KA1IQ	KC1X	AK2H	W2SUE	WB3DWH	W3TVB	WA4FND	W4KQF	
W1ISD	W1XA	W2HG	K2TV	KA3DWN	WA3UIE	KA4FOJ	WD4KYO	
WA1IZS	WA1YJW	KA2HMI	K2TW	KA3EBF	WA3UNX	WD4FQD	WD4LGE	
AG1J	K1YSE	KA2HTH	KF2U	WB3EBV		KB4FQT	KA4LOB	
W1JNZ	WA1ZVI	WA2ICI	W2VSN	WB3EFI	KB4AJ	WB4FTW	WA4LUQ	
W1KGN		WA2ICY	WB2VYA	N3EG	KA4AJR	NE4G	K14M	
K1KZL	N2AA	WA2IFS	KJ2W	KA3EHW	N4AKO	WA4GAX	W4MAP	
WA1LEZ	WD2AER	K2IIL	WB2WMJ	WB3EKV	KA4AOQ	W4GIO	WA4MBG	
				WA3ENO	WD4AQK	K4GKL	WD4MFG	
				W3ETB	WB4ASW	KK4H	K4MG	
				AJ3F	N4BGQ	WA4HDS	K4MJO	
				KA3FNW	WA4BRQ	KA4HMV	N4MM	

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The Exchange

Armond Brattland, K6EA

The National International Net (NIN)

This is written during the last week in July. On the 4th of July at 2300Z, no signals were heard on 21,150 kHz; the band seemed dead at Lake Bemidji. However, after calling "NIN" and sending several QSTs, a strong signal was heard sending "?" and then the station sent "CQ." It turned out to be a local that had difficulty receiving 10 wpm. Upon making contact, the operator "kicked himself" for not making the effort to learn code as a youngster, when his dad and grandfather tried to teach him. It seems they were both telegraphers, but he then refused to respond to their efforts. Now as an OM with his first Novice license, code was "giving him a bad time." That made my day! If you were on 21,150 kHz at 2300Z on the 4th, per our sked, how was your "celebration?"

As often as possible on Sundays, I go on 21,150 kHz at 2300Z and call "NIN." I hope you do also, so sooner or later we may get together. Have a piece of traffic handy, just in case. Remember, "To get results, you must make calls." If enough of us work up the Sunday, 2300Z habit, there is hope that NIN can eventually start operating daily.

Is it this way?

Not a few amateurs believe their particular facet is the only one that is worthwhile and good for Amateur Radio. That appears to be the viewpont of quite a number of those one encounters. It surely is the firm opinion of one amateur I've known for many years. He mentions the fact that Amateur Radio started so early and that we've worked so hard to establish good public relations, but in several directions with little success. He cites the difficulty we have getting into choice apartments, except by "stealth." Also, the miserable manner some city governments treat amateurs, even though we own our own property.

Concerning amateur periodicals which the public might read, it was his opinion that our PR was especially weak, in the manner that such publications are handled in public libraries. It was his idea that an effort should be made each month to offer reviews of material that the general public could better understand; also, that a special effort be made to educate librarians and library workers, enabling them to have a better and larger understanding of Amateur Radio, and to relate to the reading public. Finally, that our publications for years have made a strenuous effort to tear each other apart and build up factions among the amateurs that tend to keep us apart; instead of building a fraternity with a strong public image, we've been weakened.

What do you think about our situation? Are we as strong as we could or should be? Do any readers wish to address this whole PR subject, in this column?

'Mills' in the MART

The morning of 17 July was much like other mornings, except I had a long distance call from a gentleman in Texas. He didn't say so until I asked; it just had to be a true Texan. It was Ralph Alexander, WB5ORH of Box 326, Lefors, TX 79054; (806) 835-2997. He had noted mention of what telegraphers term "mills" in the column. My attention was called to his ad in the second column on page 55 in The MART, July **Worldradio**. Ralph converts standard typewriters into "mills." We chatted for quite awhile about that subject and I learned that the old surplus telegraph keyboard typewriters that used to clutter up the back rooms of repair shops are all out of service now. Thus, to have a "mill," it must be made up and the keys all changed to capital/gothic type. It involves considerable work, but from the enthusiasm WB5ORH demonstrates, to him, it is a labor of love. Tks agn Ralph for the FB LL (landline) chat!

SOWP — What is it?

Perhaps, while reading items in "The MART" you have noted the ad usually headed: The SOCIETY OF WIRELESS PIONEERS? You may have wondered if you were eligible, since you remember handling some *paid, commercial radiograms* while you served in the military as a radio operator.

Immediately following World War II — before RCA, Globe, Mackay and other commercial radio services could get back into action — U.S. Navy stations handled a great deal of the paid-commercial radio traffic about the world. In a like manner, such traffic was handled by foreign countries and from one day to the next, while sailing around the globe, new services were being pressed into action on a temporary basis.

The writer of this column has been an active radio officer for many years. All during the war, on troop transports and as the war terminated, the troop ships often returned to carrying passengers, — long before the radio stations around the world were back in business. It became a daily game, at such time, to listen for all possible outlets for our traffic. Every opportunity was taken to let shore stations of all descriptions know we were again a passenger vessel, in case they picked up anything for us.

What I'm trying to emphasize is: If you were a radio opeator at some such facility handling paid-commercial traffic by radio to ships or between such stations, you might be eligible to become a life member of SOWP. Think back over your career as a brass-pounder and if such proud shoe fits, write to SOWP, Box 530, Santa Rosa, CA 95402. Give our "Bill" the full details and tell him SOWP Life Member, SGP-139 "sent you." If you visit a radio club, look around you; likely there are SOWP members present. Members who served prior to 1915 are classified as (S-SGP) Senior Spark Gap Pioneers. (SGP) served from 1915 to 1925; (P) Pioneers from 1926 to 1939; (V) means Veterans having served from 1940 to 1949 and (M) are Regular Members, covering the year 1950 to present date.

The purpose of The Society of Wireless Pioneers, Inc. — which is a unique international organization of wireless/radio men and women from nearly every area of the world, banding together the professional "brass-pounders" who have been posted at and have manned stations ashore, afloat and in the air — is summed up as follows:

The primary purpose and objective of the Society is that of collecting, researching, and recording the history of communications — particularly that which relates to Hertzian waves and the wireless or radio-telegraph mode of the art.

Members of the Society have joined in a common-effort — that of preserving the history and memorabilia of communications in general and that of wireless or radio telegraphy in particular. Much of this valuable information and record material has already been lost to posterity because no single agency has ever been concerned with conserving this valuable legacy in a field of consummate importance.

Since establishment in 1968 by its founder, Bill Breniman, the growth of the Society has been phenomenal. It has become the largest "professional" organization of its kind in the world, and is still growing at a very rapid rate.

The Society feels quite honored that we have been called upon by many nationally known libraries, universities and educational institutions for copies of our "*Historial Papers*" and other releases of the Society. Such acceptance and recognition is appreciated.

— SOWP Information Sheet

Creating good public relations!

While pondering some of the more "virulent" statements I've heard or received in writing about the need or lack of need, and various opinions expressed, I'm reminded that we are blessed with several "PR experts" on the distaff side, who are both capable of writing and speaking to such subject effectively. One of such highly respected amateurs is our own QCWA member and leader, Ethel Smith, K4LMB. A speech she made in 1979 was printed in the January issue of **Worldradio** page 14, and is reprinted, in case you missed it then.

(The following are some excerpts of a talk given by Ethel at the Vienna (VA) Wireless Society.)

One of the great virtues of Amateur Radio is its universal appeal. There are so many different phases a person can get into. Regardless of your individual interests, there are bound to be some areas of Amateur Radio that will hold special interest for you.

But while this variety of interests is one of the great virtues, I'm inclined to think it is also one of our pitfalls. I think it is a mistake to get side-tracked into just one little area of specialization. I'd like to see more "general practitioners." Obviously we can't all be experts in all fields at the same time, but don't let yourself get totally isolated into your own little corner.

If you haven't been off 2 meters in the past year, try a little bit of operation on the low bands. If you are strictly a phone operator, dust off the key and try some CW. If you are a push button operator, build up some little gadget you can use around the shack. You are missing out on an awful lot of fun and satisfaction by confining your interests.

What is worse, I'm afraid there is a tendency to think our own individual specialty is the most important one and that the others don't really count. This just isn't so. We need to learn to respect each other's specialties. Whether you can see the immediate application or not, we all need each other when it comes to the justification of our existence.

I have been talking only about the "fun" aspects of Amateur Radio, and certainly that is the primary reason most of us are on the air — the fun, the challenge, the personal satisfaction. But obviously, the fun aspect is not going to be the thing that justifies our continued use of the precious frequencies of the radio spectrum. We have to be able to prove our activities are of benefit to our communities, to our country and to the world.

Remember, the FCC doesn't control the frequencies of the world and there are many countries convinced they could put these amateur bands to better use broadcasting their propaganda. I'm sure you have had better speakers than I tell you the importance of the 1979 WARC and what we must do — or not do. Our U.S. delegation is going to have to have some pretty potent arguments about the value of Amateur Radio — and it is up to us to provide the evidence they need.

Amateur Radio has changed a lot over the years and some of our original justifications are no longer valid. In the early days, it was the amateurs who came up with practically all of the new inventions in "wireless." Or maybe it would be better to say that all the people who came up with concepts then were amateurs.

Today the inventions are coming out of well-heated commercial laboratories. But it is still largely the amateur who puts these new concepts to the test and gives them their "field trials." This has been particularly true in the satellite field and in the development of SSB.

Now we have the new narrow band voice modulation and coherent CW that are beginning to be field tested. This type of pioneering is still an important part of Amateur Radio, and I am sure it will continue to be.

But more and more, our usefulness has to be demonstrated through operation rather than invention . . . and that operation clearly has to benefit the population as a whole. It is up to us to demonstrate it, and then to talk about it and get all the publicity we can about our accomplishments so the general public will come to respect the value of Amateur Radio.

I'm confident our U.S. delegation is well-prepared to point out to the emerging nations the advantages of developing a volunteer army of technically qualified and experienced electronics people. Operators who can copy a DX signal through a sweepstake contest are certainly of value to the military; also, the operator who can track a satellite or one who can run and maintain RTTY equipment or operate a CW circuit or handle phone message traffic efficiently, etc., etc., etc. All of these things have direct applications that the foreign governments, as well as our own, can appreciate.

I'm sure most of us are pacifists at heart and don't like to think of our value in the military context. We all hope our country will never again become involved in any war, but if we ever do have to put up a fight on our own soil, it is going to be the reservoir of technically qualified and operationally experienced radio amateurs who are going to provide a vital part of our defense.

As I said before, I'm not at all concerned about our U.S. delegation's ability to defend the value of each one of our specialized interests. What does worry me is convincing our congresspeople that our delegation is taking the right stand.

Our congressional representatives are influenced by what the general public thinks of us, and it is up to us to make sure we create a good impression — through good publicity and by good judgment in our operations on the air. Some of the bickering I hear on the air and some of the nasty things said back and forth would make an eavesdropper wonder if anything worthwhile is being accomplished by any of us . . . ragchewers deliberately QRMing the net operators and — just as bad — the net controls standing on their God-given right to take over their frequency at the strike of the clock regardless of what QSOs may be in progress.

Let's show more consideration for the other fellow's rights and keep our bickering off the air. I know there are always going to be some disagreements in the most loving of families, but let's keep the windows closed when we argue. You wouldn't stand out in the front yard and shout your family arguments for all the neighbors to hear. Then don't shout your ham arguments for all the world to hear.

Write a letter if you must. Better yet, walk in the other fellow's moccasins for awhile. If you are a net operator, try a little bit of ragchewing and see how hard it is to find a clear channel. If you are a ragchewer, by all means try a bit of net operation and get a look from the other fellow's point of view.

Always keep in mind that what you say and do on the air should reflect the virtues of a good and desirable neighbor. Take advantage of every opportunity to create good public relations.

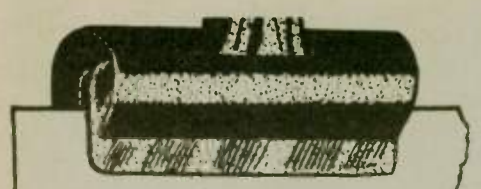
Whenever any of you do anything that might possibly be of interest to the general public, or if you know of any other amateur who is doing something worth publicity, let your PR chairman know about it. We need all the good publicity we can get. Don't hesitate to blow your own horn. This is no time to be modest.

As our PR expert, Lenore Jensen, W6NAZ, put it: "It's not that your good deeds are performed for thanks, but our survival may depend on letting the world know about them."

Shuffling

This word means many things, such as *putting things straight* or in another order. What do you finally do with your accumulation of QSL cards? A few have index files; others try to find space on the walls; but not a few just shove or shuffle the cards into shoe boxes. Over the years, have you ever thought of putting out a card that would give the recipients an idea of where they could find you on the air? I've sometimes had cards printed that give the names or designations of nets, with that in mind; but from inquiries I've received, that does not seem to "register." Next time I'll indicate the times and frequencies such nets meet. It is really too bad that so many nice cards must end up as "dead" cardboard, but then if the postage rates continue to climb as the U.S. Postal Service indicates, you will receive fewer cards. If you are feeling the bite of increased rates now, how will it be if the Postal Service expenses and salaries escalate and with each raise you must add additional stamps?

It is apparent that traffic handlers are feeling the pressure, judging by the number of radiograms serviced back, wherein former telephone numbers of addressees are now unlisted. Traffic handlers now in greater numbers service the traffic back, rather than mailing it on to the address they have. Out of 14 I sent in connection with National International Net activities, four were serviced back because addressees now had unlisted telephones, so the numbers given were obsolete. However, the addresses were current according to the latest Callbooks. It would be well for net managers now to obtain the telephone numbers of all net members. Also, when you originate radiograms, tack on your telephone number, including the area code number. If the Postal Service is determined to increase postage rates, we must try to keep our traffic nets alive as nothing will kill us off sooner than not being able to effect deliveries. □



TRAFFIC

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

Scout Jamboree

As this is being written, the last traffic is being cleared from the National Jamboree of the Boy Scouts of America at Fort A. P. Hill, Virginia, 27 July to 3 August 1981. Judging by the message numbers, K2BSA must have originated over 1,500 messages during the week — over 200 a day.

The effort appears to have been well-organized. The National Traffic System was used, but much of the traffic was handled by special schedules with traffic-handling specialists throughout the day. RTTY was also in use, but there were equipment problems. Making provision for such contingencies is an important part of planning, and being able to operate in several modes and having plenty of operators and sufficient outlets for the traffic are important too. All in all, it seems this was a demonstration of how to put the Scout motto into practice, "Be prepared."

In any operation that is expected to generate a volume of traffic like this, such planning is essential. You can't just set up a rig and announce you'll send messages "anywhere in the world" free of charge. Either you will just sit there and do nothing, or you will be swamped with traffic that you won't be able to handle properly.

Advance planning

No matter how well you plan, something unplanned is almost sure to happen. But if the planning is well done, such unplanned events will be few and will be handled easily.

The first step is to decide what the purpose of the operation is to be. If you aim at nothing, you will hit it. In the case of the Jamboree, was the principal purpose that of providing communication for the Scouts, or of interesting the Scouts in Amateur Radio? Or both perhaps? The answer is basic in deciding what kind of operation is to be planned. If traffic handling is the principal purpose, all would be organized with a view to maximum efficiency. If interest in Amateur Radio is the primary objective, maybe traffic handling should not even be included, but rather DX, satellite, TV, and phone patch operation would be more interesting to most people; or maybe traffic handling could be included but only in a subordinate position. But it is important that a clearly defined purpose be agreed upon from the start, to guide all the planning.

Next, it will be necessary to determine how much space will be needed, and to arrange for that space. While arranging for the space, one should also take care of the other necessary negotiations with the sponsors of the event. Here are some topics that should be discussed and agreed upon as necessary: Hours of operation. Admission of personnel, passes, identification. Possible interference from amateur station to others participating in the event. Possible interference from others to the amateur operation. Noise level. Antennas. Flow of pedestrian traffic around the station. Publicity.

In the case of an event like the Jamboree where there could be a sizeable amount of traffic coming in, arrangements should also be made at this stage for delivery of such incoming traffic.

Try to estimate the amount of traffic to be expected. You can draw on experience of others who have operated similar stations previously, but always make allowance for the possibility of having a bit more. Besides, the traffic will not usually come at a steady pace, but more likely it will be in bunches, so it may be necessary to handle more at times than you would expect, if you consider only the average rate.

If you expect more than 25 or so messages a day, you have a large-scale operation and should plan accordingly, making sure all the following details are fully taken care of. A small operation, fewer than 25 messages a day, could be handled by one operator and using the National Traffic System as an outlet. But when it gets bigger than that, the pile-ups and mixups and delays that result will not give a good impression of what Amateur Radio can do.

The National Traffic System is primarily set up in its day-to-day operation to provide the average amateur with an easily accessible means of sending an occasional message. It's like the corner mailbox where you can drop a letter and forget it, letting the U.S. Mule do the rest. If **Worldradio** were to take its press run of 24,000 copies to the corner mailbox and stuff it in and pile it up around the outside, you may be sure the postmaster would not appreciate it. In the same way, when you have a bundle of traffic, don't just expect to dump it all on the section net. Line up schedules with various stations to take it outside the nets. If you contact regular traffic handlers, they will be able to advise you on how to do it in your case. You will probably be able to set up schedules around the clock if necessary so that the traffic will be going out continuously. If incoming traffic is expected, arrangements can be made for that too, probably on another frequency and from another operating position at the special event station. Once your traffic is in the hands of an experienced traffic handler, it will be routed to its destination either by nets or by special schedules.

Occasionally an over-zealous official will object that such activity defeats the system concept of NTS. It does not; in fact, it is expressly provided for in the ARRL's booklet on public-service communication, but some readers may have missed it. These are what are termed "hot lines." When traffic is being handled in bulk, it should be kept out of the regular system as much as possible, to leave the regular system available for other traffic.

What mode to use depends on equipment and operators. It's easiest to use voice as most stations are equipped for it, and it's also easier to find operators. RTTY is best for moving large volumes of traffic, if you can get stations to take it. CW is somewhat more effective than voice with good operators, and has been found to be effective in arousing the interest of onlookers as well. Playing the signals through a speaker so that the public can hear is sure to draw a crowd.

Once you have decided on what mode or modes you will use, and how many operating positions will be needed, equipment needs will be evident. Not only transmitters and receivers and antennas and the like, but also furniture, pencils and paper, paper clips, lighting, layout. Better have some back-up equipment, as well as tools and test equipment, since you never know what may happen.

Then there is the question of operators. You will need experienced operators — experienced in the mode they will be using, to handle the traffic. It's no place to break in a beginner. But other operators will be useful too. They can talk to the public, verify addresses, count checks, write preambles, sort messages by destination, prepare incoming traffic for delivery. A few non-amateurs may also be helpful in a large-scale operation by helping with the paperwork, getting coffee, making deliveries.

How many operators? A good operator, with such assistance, may average one message every two minutes when conditions are good, and can keep that up for maybe two hours. So if you are running something like the National Jamboree with 200 messages a day, you would need at least four operators. Of course, some of them would be able to go back on the air again after a break. But you must also allow for those who promise to come and don't. Household emergencies are bound to occur, and people are forgetful. So it's wise to have a few extra on call if needed.

And don't forget to provide for the needs of the operators too. If you don't you may find it hard to recruit them next year.

Finally, publicity. What form it will take depends on the nature of the event. In the case of something like the Jamboree, it might be possible to secure mention of the amateur station in the bulletins sent out by the sponsoring organization. You might get newspaper coverage. (Remember, journalists are looking for stories about people, so approach them accordingly; a picture of a group getting ready for the event would probably be what they want.) Then during the event itself, be sure the public has some way to know what you're doing and how to find you.

Commercial traffic

This question simply won't go away. I heard an amateur station during the Jamboree refuse to accept a message where a Scout was asking his folks to send some money. And Laryl Myers, N7BMY, told us on page 11 of August **Worldradio** that the U.S. QSL Service had received a reply from the FCC stating that asking for an SASE by amateur radiogram is prohibited.

What is the rule? Section 97.114 prohibits traffic involving material compensation to a third party, a station licensee,

a control operator, or any other person, and — except for emergency communication — traffic consisting of business communications on behalf of any party. Business communication is defined as any transmission or communication the purpose of which is to facilitate the regular business or commercial affairs of any party.

There are thus two categories: (b) traffic involving material compensation, and (c) business traffic. (Paragraph (a) was omitted because it deals with international traffic and that's not in question here.)

Material compensation here means compensation *for handling the traffic*, and is obviously prohibited by the very nature of Amateur Radio — a prohibition that has been in existence from the beginning. Business traffic is the category in question here. It's a new problem, only 10 years old, and causes some amateurs more anxiety than it ought.

Note that the FCC's definition is quite restricted. It requires that the *purpose* of any communication be to facilitate business for it to be prohibited, so it is permitted if it incidentally facilitates business but its purpose is something else. Thus, placing orders, getting quotations, and dispatching salesmen would obviously be prohibited. But telling someone where to find a service station or restaurant would not be: while it actually does facilitate business affairs, the purpose is rather to help someone in need. This is the same reasoning that makes the Eyebank Net legitimate: it does facilitate the business of hospitals and surgeons, but its purpose is to help people who are visually handicapped.

The rules do not define business or commercial affairs. What are they? Anything involving money? Not necessarily. Barter is a business activity, even though no money is involved. A gift is not, even if it is a gift of money. Business involves an exchange — something given, something received. The thing given and received may be money, material goods, real estate, services, patents, copyrights, the right to use someone's property in a rental agreement. And it does not matter whether there is profit involved. Business that loses money may not be good business, but it's still business.

The FCC added an additional qualifier: only traffic intended to facilitate the *regular* business affairs of anyone is prohibited. Thus, it is permitted to conduct business by Amateur Radio in the case where no party involved is regularly engaged in such business. Amateurs may negotiate sales and exchange of amateur gear or swap nets, for example, as long as nobody involved is in the business of buying and selling radio equipment that could be used on the amateur bands.

A bit of history. For over half a century, the only restriction was that amateurs could receive no payment of any kind for their services. As the Federal Radio Commission's General Counsel expressed it back in 1928, "Any Amateur Radio operator may transmit or deliver from any Amateur Radio station a message of any kind . . . regardless of the source or text, provided that no pecuniary or other consideration is directly or indirectly paid or promised him."

Two things caused the FCC to blow the whistle in 1972. Those involved in the Jonestown affair in Guyana made extensive use of Amateur Radio for their communication needs. It was not only as commercial traffic that it was objectionable; the whole operation had every appearance of being highly illegal, and in fact, ended in a mass suicide. The FCC's legal people were looking for specific violations to cite in justification of cease-and-desist orders, and found something to use in Section 97.39 of the Amateur Regulations. The present text of the section says that an amateur station license will not be issued to an organization. The older text added, "nor for its use," so that the FCC could say this organization's use of Amateur Radio must stop. But to be consistent, the interpretation would mean that we must also stop serving the Red Cross, Eyebank, American Legion, Boy Scouts, Girl Scouts, United Way, and hundreds of other groups.

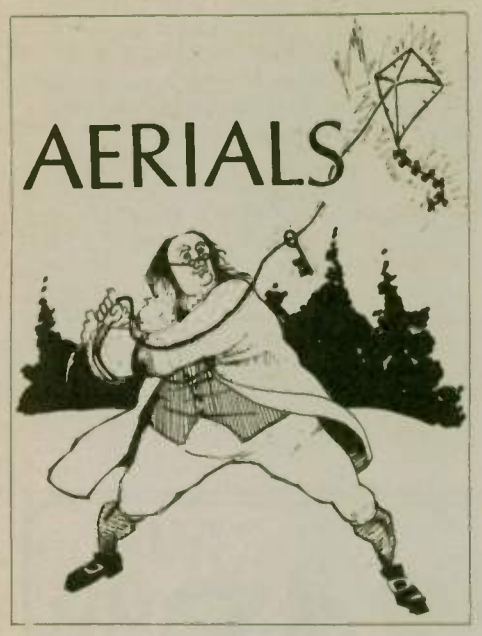
The second difficulty was that Amateur Radio VHF, with its repeaters and autopatch, offered an attractive and substantially lower cost alternative to commercial two-way radio and mobile telephone service. There was beginning to be danger that people would get Technician licenses (not necessarily by proper means; at that time any General Class amateur licensee could give both Technician and Novice tests), and we would soon find our 2-meter assignments taken over by everything from diaper services to funeral directors.

To provide for both these needs — allowing us to serve organizations and preventing non-amateurs from usurping our frequencies — the FCC eliminated the words "nor for its use" from section 97.39, and inserted the new text of section 97.114 forbidding us to handle business communications except in emergencies. In the process, it complicated life for traffic handlers who now must judge as to the business character of each message they handle, even though no problems had arisen from that source in over half a century.

Should we or shouldn't we?

Since the prohibition as applied to formal traffic is the result of necessary regulatory overkill ("to be consistent"), and since no problems have ever arisen from handling business traffic, I personally think our attitude should be to presume it's good, and refuse only what is

(*please turn to page 47*)



Lil Paddle

First of all, I would like to extend my gratitude to those who have been so kind as to write in with kind words regarding these dispatches. Gentlemen, I thank you.

Now to some problem solving. A query came in from an amateur who lives on the 12th floor of a condominium in Riviera Beach, Florida. He has 17 feet of horizontal space. What, he asks, is there to use other than mobile antennas?

Being on the 12th floor may be your salvation. One trick is to slip a wire through a length of PVC pipe which holds the wire away from the outer wall of the building. Tie a fishing weight (sinker) to hold down the bottom end. The wire will have to be at least a quarter-wavelength long on the frequency being used. This antenna must go into an antenna tuner which then goes to the rig. Obviously, this will probably be a nighttime utilization. A good ground system, say to the cold water pipes or quarter-wave wire strapped to the ground post, will be necessary. There is always the possibility of finding some wire the exact colour of the wall of the building and sneaking by on daytime use. (Paint the fishing weight.)

If you can find some accomplices among other residents on the same floor, a horizontal wire could be used. But let us now consider having to keep everything indoors.

You mentioned you had 17 feet of horizontal space. Such is a bit over a quarter-wave for 20 metres. Starting where the walls meet you could have half of a dipole run along one wall and the other half run along the other wall, and then bend it down to make up the difference.

Depending on the aesthetic factors involved you could start in the very middle of the room, tape the dipole to the ceiling, run the wires to the corners, and then bring the wires down to the floor and along the walls.

Since in your situation it seems every dB will be precious, you might try using a loop antenna a quarter-wavelength on a side along the floor and ceiling and walls. It would look like a one-element quad. Then you could put another element on the opposite wall — say five percent longer — to act as the reflector. Thus you have a two-element quad for the higher frequencies.

Getting really ingenious, you could come up with a stub arrangement that would have the undriven element vary from 5 percent longer to 5 percent shorter, and it would then act as a director and you would be directive in the opposite direction. (Just think about it; you could sit around the club meetings and boast about your two-element quad up 100 feet!)

The results on 10 and 15 could well surprise you. Or you could turn it around and, not depending on the walls, put up, say, 8-foot loops supported by nylon fishing line tied to picture hanging pins, a four-element quad facing out in the direction of the window (if that fits the dimensions of the room). You will now have a great signal someplace in the world.

One solution may be the loop antenna similar to those you saw on broadcast radio receivers many years ago. While not very efficient, they do work better than one would think and were the favorite for clandestine services for many years. You will need a tuner that works with balanced feedlines.

Another thing to try for the lower bands would be a very thin wire running to a tree somewhere (if such exists). It may never be noticed. Check it daily because if a bird flies into it, it breaks.

You didn't mention how many floors there are above you in the building. If the manager or the maintenance people don't go on the roof very often, possibly you could paint some of that very thin coax the same color as the wall and run it up to something on the roof. If they do ever find your vertical up there you could say, "It's been up there for six months now, who did it hurt?" Sometimes less than the truth is the best defence.

To digress, when we speak of long thin wire, we're referring to enamel-covered wire. Possibly 12 stories up, with cooperating neighbors, balconies, and if the colour of the wall is right, plastic-covered wire of the right colour would never be seen. (This would be in a dipole configuration.)

Do not give up hope. Look at it this way. If the QRPp zealots can make contacts with a good antenna and no power, you should be able to do well with power and no antenna. An amplifier or a speech processor may be needed to give you the lift needed. All will depend on the absorption offered by the building you are in.

If all else fails, there is 2 metres.

(Lil Paddle is an assumed name (no kidding?). She's been around radio so long that if someone mentions Don Wallace, she replies, "Oh, you mean 'the kid'." After a few sherries, she harks back to the days when "we had wooden radios and steel men.") □

Contact Worldradio for hamfest prizes.

A letter to Kurt

Dear Kurt:

OM, I just finished reading your column, smiling all the while. Since your column has appeared there, I have followed it closely; not because I need the basic help in antennas, but because shielded by your anonymity you can call a spade a spade, or translated into Spanish, "llamar al pan, pan, y al vino, vino," (bread-bread and wine-wine).

So far, you're doing a good job of injecting a little common sense into the bull promoted by antenna manufacturers and perpetuated by num-nums that really believe that baloney about adjusting for antenna resonance by watching the SWR at the far end of a random length of coax, and adding to or chopping away at the wire which they cut the right length by formula.

I realize this just uses the feeder to tune the system resonance, rather than antenna resonance, but since it always seems to radiate power, it leads me to a question you might wish to address. Any good antenna handbook states the *antenna* should be resonant to be most efficient. OK, that sounds logical. Then how does the efficiency compare between the simple case of two dipoles, installed under identical conditions, except that on one, instead of tuning for system resonance as above, the dipole is tuned for actual resonance with a noise-bridge, and then matched to the feeder with a matching system right at the feed-point?

My reason for wondering about this is that I think it's relevent. I'm one who uses the noise bridge approach, and my antennas certainly seem to work. However, antennas tuned as systems to include the factors induced by feed line Z transformation also seem to radiate. Given that all other factors about the installation are equal, just how much difference in radiation efficiency should one expect to see?

I'd be inclined to run the experiment myself, but I have a severe physical handicap which limits what I can do, as I have to get somebody else to climb my tower, and prefer not to bother those who will with playing antenna games just to entertain me. I put things up that I know work, and put them up there to stay for a long time.

If you're inclined to conduct such an experiment, my suggested method would be to approach the tuned system in a way to ensure it would be "worst case." I'd feed it with a measured quarter-wave, or odd multiple, to ensure that the feeder would induce maximum error in SWR measurement made at the input end, then fool around with the antenna length to obtain something near a VSWR indication of 1:1. This, I believe, is what probably happens much of the time when amateurs don't know how long the feeder is in electrical degrees.

As an interesting observation about the famous, or now infamous, double-bazooka antenna: following the August '77, 73 Magazine article on the double-bazooka by Wm. Vissers, K4KI — in which he reveals that essentially the ideal system would exist if a normal dipole were shunted at the feedpoint by a quarter-wave stub (shorted), made of 9 ohm coax; and thus his double-bazooka stubs are cross-connected to put them in parallel, putting the two sections of 50 ohm line in parallel for a net Z of 25 ohms, and closer to the theoretical optimum 9 ohm value — I corresponded with him regarding the advantages of using two paralleled stubs on each side of the feed-point. By doing it that way, and by spreading these to increase the effective diameter of the antenna, I theorized that the added diameter would make it more broad-band, and the parelleling stubs would simulate a single stub made of 12.5 ohm coax, even closer to 9 ohms.

Vissers thought the results might not be different enough to warrant the complexity and cost of construction; however he didn't discourage the experiment, so I built the antenna for 40M, using coax out to the ends of the stubs, and spreading it about 10 inches at the center of the parallel coaxial stubs, then bringing the stubs together at a common point at their ends. From there, the remaining length was made up of a triangular loop of #14 wire connected to the stub ends, and spreading again to about 10 inches right at the ends of the antenna. Viewed from the side, the antenna resembles a double bow-tie, there being a sort of complete bow on each side of center. When checked with a noise bridge, it looks essentially like 50 ohms resistive over a range of close to a MHz! The thing corrects for non-resonant reactance so well that across a tremendous bandwidth there simply is no defined resonant point. That's what I had hoped for. My Tx loves it.

My RX noise bridge says it should be working at least as well as a 50 ohm dummy load. My SWR bridge shows it is as flat as the RX noise bridge implies. And signal reports indicate it does, in fact, outperform a dummy load. I had used the original double-bazooka configuration earlier, and since both have outperformed a normal wire dipole, at least in their ability to provide the transmitter with a fairly constant Z to look into over an extended bandwidth, I have no reason to take the antenna down, and the constipated mathematicians can go work it out with a pencil . . .

In truth, the results on 40M probably do not warrant the extra complexity, as Visser's simpler cross-connected version would have little problem presenting a fairly constant Z across only 300 kHz. I do feel it would be worth-whole on 80M, if one wants to be able to work anywhere in the band without loading problems, or resorting to an antenna tuner. For over a year I have had an 80M version partially constructed and cluttering up my workbench; perhaps before winter '82, I'll finish it and get someone to hang it for me.

Anyone who wants to demonstrate that the double-bazooka concept won't radiate

with reasonable efficiency, and provide tremendous relief from the problem of trying to couple power into the antenna — anywhere in the band — with a solid-state rig and no tuner, certainly has his work cut out for him! Viva the bumblebee!

Now, for another curious observation. Last fall I built a trap-dipole for 40-20-15-10M. What I used for wire was #16 stranded, with fairly thick PVC insulation. Since I adjusted the wire length by using the RX noise bridge, I really cannot be sure, because I just wasn't paying that much attention; but when I was through, it seemed the wire lengths were a bit longer than I had anticipated they would be. I didn't think about it at the time, but in the January '81 **Ham Radio**, Bill Orr, W6SAI mentioned a curious observation made by P.G. Dodd, G3LDO, and published by RSGB. G3LDO observes that the popular formula of 468/F MHz, works well for bare or enamel-insulated wire. However, for heavy hook-up wire, with PVC insulation, his experiments show that the VP will be closer to 0.965. Since this would then tend to make the antenna slightly longer at resonance, I started reflecting on the trap-dipole project, which had indeed given me the impression that it was requiring more length for resonance.

I then remembered that I had cut another antenna made of the same #16 PVC insulated wire, by formula (468/F MHz), to take with me during last September's VHF QSO Party, when I went to Mexico. Because it was just temporary, I didn't fool with the noise bridge. I just cut it by formula, connected RG-58C/U, and took along my little MFJ-941B Versa-tuner to compensate at the Tx for any problems. This was to be my "just in case 6M is dead" antenna, so I could get on 40 and 15M. I had cut it for around 7.050 MHz, and remember now that I was rather perplexed when the apparent low point for SWR was way above 7.2 MHz; but I just blew it off since the next day it wouldn't matter any longer. Also, since I had just connected a random length of feeder on it, I figured the feeder was getting into the act . . . which still didn't matter since the antenna worked satisfactorily.

This year when I went back, I decided to put up an inverted-V with elements for both 40M and 20M, spread well apart, and fed with a single 52 ohm tuned line, resonant at 7 MHz. The end insulators were left off until I got there, and then attached about a foot from the ends of each antenna. Alberto Urcelay, XE1EDX/KA5DTN and Jack Ammam, Jr., WA5NAD did all the rigging, since we were all there together. Since we keep going for the VHF QSO Party, I decided to noise bridge tune for resonance at the low ends of 40 and 20M, and just leave the antenna installed.

When the inverted-V was hung, I checked it with the RX noise bridge, and even though I had cut the elements all a bit long to provide for some cutting, the damn thing was resonating up around 7.050 and 14.1! SWR was acceptable, and I had the MFJ tuner with me just in case, so we didn't fool with it anymore.

Lumped all together, these experiences may not mean anything at all, there being so many other objects in the near fields of these various antennas; but it does give rise to the speculation that G3LDO has indeed hit upon something which should be taken into account when heavily insulated hook-up wire is used for antennas.

Have you had any similar experiences along these lines?

For no good reason, but if I had simply guessed at what the effect of heavy PVC insulation would be on antenna resonance, I would have guessed that if anything, it might reduce the VP a bit below 0.95. It seems though, that it does the opposite. On a 40M antenna, the different VP makes about a 1 foot difference in overall length, a point which should be considered by those who simply cut by formula and connect feed-line.

Well Kurt, thanks for your interesting column. I hope some of the foregoing is of some interest and value. 73.

Sincerely yours,
ROBERT G. WHEATON,
W5XW-XE2XW-VP1XW
San Antonio, Texas □

2-meter DF antenna

Start with a 38½-inch length of RG8U coaxial cable. Strip the outside layer of insulation and the braided sheild off half the length of this coax so 19¼ inches will be left intact and 19¼ inches will be bare down to the center insulation.

Connect the center conductor of the stripped end to the center connector of a FL259 coax male plug. Connect only the braided shield of the other end to another FL259 coax male plug, being careful the center conductor of the coax cable does not make contact. Apply tape around the stripped section to give it better support.

Form the cable in a circle and insert both ends into opposite ends of a standard "T" coax connector. Connect a short piece of coax from the "T" connector (you may have to adapt with a double female) to your receiver.

Norm McNew, KB9QL says this direction finding antenna is accurate to within three degrees.
—*Milwaukee Hamateur News, WI* □

SWL lives!

Do you think that SWLing is virtually non-existent? If so, you are wrong.

The American Short Wave Listeners Club publishes a monthly magazine of 50 pages or more each month giving information on SWLing all over the world. It is a well-organized group, and much information is given on where to find what on the various bands. If you'd like more information, contact Stewart MacKenzie, 16182 Ballad Lane, Huntington Beach, CA 92649.
—*ARNS* □

Traffic

(*continued from page 45*)

obviously and clearly prohibited. Furthermore, I also feel one can abide by the decision of the originating operator, who is in a better position than we to know and can ask questions of the person for whom the person is being sent.

I followed the MARS directive — once it's in the system, consider it good and pass it on (USAF MARS operating directive 3-3). Yes, MARS and FCC are entirely separate entities; neither has jurisdiction over the other, so you can't use the decision of one as a precedent for interpreting rules of the other. I mention the MARS directive merely because it makes sense. The FCC has never been much concerned with formal traffic anyway. It's what happens on repeaters that the Commission is worried about.

As for the specific instances mentioned, sending an SASE to a QSL manager is not an act of business. No compensation or exchange is involved, as the manager simply stuffs the QSL card in the envelope and sends it back. In the case of the U.S. QSL Service, however, there is an element of business because the service also sells envelopes four for $1, and charges for handling outgoing QSLs. So, for it to ask for an SASE by radiogram would indeed be business communication.

But there's a way around it, and it has been used. I've handled several messages from other amateurs who advised people that their calls appeared on the list in **Worldradio**, and that is perfectly legal. The purpose is not to facilitate USQS, but to help amateurs get their QSL cards.

And asking the folks back home for money is not business, either — any parent knows that's strictly one-way!

Finally, in matters like this it's best *not* to ask the FCC; simply go ahead and operate. Let the FCC take the initiative. If there are no complaints, we will be left alone. The FCC can use its facilities for something more important, and all will be at peace. Sometimes, in fact, I believe that government officials take the hard line in answering such queries precisely in order to discourage them. □

CONSTRUCTION

Chuck Clark, K4ZN
Assistant Director, Roanoke Division, ARRL

Two-meter antennas

The antenna is usually a small part of the investment at an amateur station, but it is a vitally important part. It's the point of contact between the station and the outside world. Well-designed and constructed, it puts the signal where it's wanted and efficiently catches desired signals when receiving. Poorly built, it can convert expensive radio-frequency energy into heat that does nobody any good. These statements become increasingly true as frequencies are raised. RF power becomes more expensive as frequency goes up, while size and cost of antennas drop. And yet, the higher the frequency, the more important the antenna is as the key to best performance. Feedline losses increase with frequency; antenna height is much more important at VHF than at HF; system noise levels are lower, so that noise contributed by the antenna can impair weak-signal work. So the antenna is the last place for skimping.

I won't draw the conclusion that one should therefore buy the best antenna one can afford. That is a valid conclusion, if one must purchase the antenna; if not the best one can afford, at least get one that is adequate for the job. For local work on the repeater, you don't need a 25 decibel gain array, even if you can afford it. But if you only plan to operate locally and have no desire to work meteor-scatter or moonbounce, your antenna requirements are so simple that maybe you should consider building your own instead of buying one.

Here are two simple designs for 2-meter antennas that are quite adequate for local work. They need no tricky adjustments, can be built as described, put up, fed by any length of 50-ohm coaxial cable, and be counted on to work properly right from the start.

Coaxial cable: KISS

Here is a real power-eater at VHF. Even a new cable can consume half or more of your output. RG-58/U has a loss of 6 decibels per 100 feet, and that's new cable matched to the load. That means 75 percent of your power is heating the cable in a 100-foot run, more if the cable is old or not matched to the load.

After introducing a speaker at a meeting, the chairman handed a note to the speaker, saying, "It's from your wife. Nice to see such loving sentiments from people married as long as you." Scrawled on the paper in large letters were the words, "KISS, Mabel." "Oh," replied the speaker, "it doesn't mean what you think it does. KISS stands for 'Keep it short, stupid!' " It holds for speeches, and also for VHF coaxial cable runs. Keep runs of RG-58/U to 15 feet or less, and of RG-8/U to 40 feet or less, at 144 MHz, to keep the loss down to one decibel.

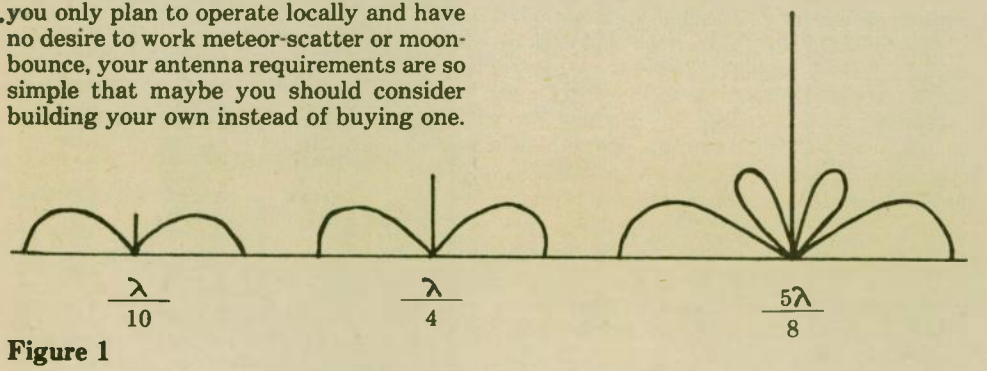


Figure 1

5/8-wave vertical

Any length of wire will radiate, and, if losses in the resistance of the wire and of surrounding objects are neglected, will radiate all the energy supplied to it. For very short antennas, however, the losses may easily exceed the amount of energy radiated. And as an antenna is made longer it becomes more directive, making it possible to radiate more of the energy in directions that are useful for communication.

In *Figure 1* we see the vertical patterns for three different lengths of vertical antenna. A quarter-wave antenna radiates less energy in directions close to the vertical and more in horizontal directions, when compared to a very short antenna like the 1/10-wave one shown. This effect continues until the antenna reaches 5/8-wavelength. As it passes one-half wavelength, however, a minor lobe begins to appear close to the direction of the antenna, and it grows larger as the antenna is made longer. It can be seen in the 5/8-wavelength antenna's pattern. Beyond 5/8-wavelength, the minor lobe continues to grow, but now at the expense of the major lobe, the horizontal one. Beyond 3/4-wavelength, more energy will be found in the upper lobe, until at one wavelength horizontal radiation disappears completely.

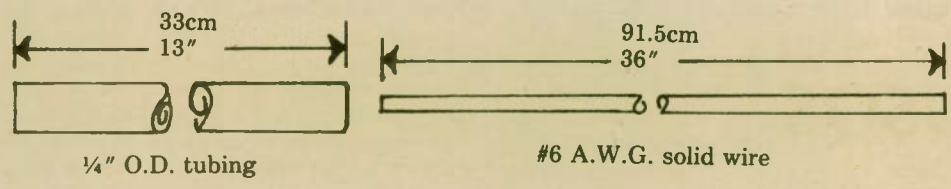
Because horizontal radiation from a vertical antenna peaks at 5/8-wavelength, this length vertical antenna is quite popular, giving gains of about 3 decibels over a quarter-wave. Always note that antenna gain figures can be misleading, as there are so many variables in an actual installation. They do, however, indicate the kind of performance to expect, and the 5/8-wave antenna is popular because it actually is a good performer.

An additional desirable feature of this antenna is the fact that its radiation resistance is close to 50 ohms, so it matches what has become standard output impedance for amateur transmitters. It has a capacitive reactance of about 180 ohms, however. The usual solution is to insert a loading coil of 180 ohms inductive reactance in series with the antenna at the feedpoint to cancel out the capacitance. About 0.2 microhenries will do the job.

To eliminate the loading coil and the need to protect it from the weather, Joe Pentecost, K4LPQ suggested using a shorted line as loading inductance, in an article in **Ham Radio** for May 1976, page 42. The design shown here is adapted from his article and is currently in use at K4ZN.

The reason this approach isn't used more often is that it's hard to figure out the length of coax you need for the line: RG-58/U has a capacitance of 28.5 picofarads and an inductance of .086 microhenries per foot. But this inductance and capacitance are not lumped. They are distributed down the length of the cable, and so to determine the exact length involves more mathematics than most of us care to fool with, even if we have the ability. But when you already have the needed measurements, it's simple to cut your coax to the proper length.

This antenna is made up of a 36-inch (91.5cm) piece of wire. I used #6 copper, but you can use a piece of brass brazing rod or stainless steel. The rod is inserted 1½ inches (3.8cm) into a piece of tubing. I used ¼-inch copper tubing, but again, brass or stainless steel can be used too; this is a size that will give a snug fit over the wire. The tubing is cut 13 inches (33cm) long. All dimensions should be accurate to ¼-inch or better (5mm). The overall length should be 47½ inches



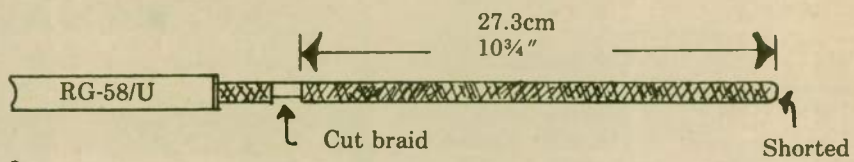


Figure 2

(121cm). Solder the wire into the tubing. A torch will give the best results.

Strip the outer covering from the end of a piece of RG-58/U coaxial cable. Remove 1 foot (30.5cm). Push back the braid at the end of the cable, remove ⅛-inch of the inner dielectric (3mm), push the braid out again and solder it to the inner conductor. Then cut the braid 10¾ inches from the end as shown in *Figure 2.*

I used a number of plastic disks to support the antenna, *Figure 3,* and four 19-inch pieces of #6 wire as radials for the ground plane. The radials are soldered to a copper disk. Two bolts running through the plastic and copper disks also pass through a piece of angle iron that supports the whole assembly. The prepared piece of coax is inserted into the tubing as far as the cut in the braid. The cut end of the braid is soldered to the end of the tubing, and a piece of wire is soldered to the braid beyond the cut, on the side going to the station. The other end of the wire is connected to the ground plane by a lug under one of the bolts holding the assembly together.

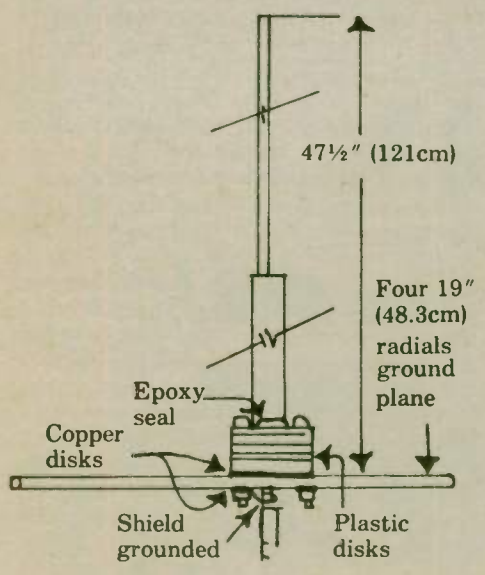


Figure 3

I have not been able to compare the performance of this antenna with any other. All I can say is that it works.

KC5AQ's clothesline quad

As I was preparing this month's column, I received a letter from Sister Mary Emmanuel, KC5AQ, describing her homemade 2-meter quad, and thought it would be of interest to many readers as a simple but effective antenna. Unlike the antenna described above, this one has some directivity, with maximum signal coming off perpendicular to the plane of the quad.

You need a piece of aluminum clothesline 83 inches long. Copper wire would work just as well, of course. Homebrewers should use what they have, not run out and buy something. That's the name of the game.

Mark it for bending as in detail *A* of *Figure 4.* Bend it into a square. Flatten the ends, drill them to pass the mounting screws, bend them to lie against the post. Fasten the top of the quad to the post with a staple, the bottom with two sheet-metal screws, with soldering lugs for the leads to the coax connector. Mount the latter on a piece of aluminum angle as shown in details *B* and *C* of *Figure 4.*

KC5AQ says, "I have built numerous 2-meter antennas and used many others. I have had plain verticals, Ringos, Ringo Rangers, and a five-element Yagi. I have built an 11-element Yagi and a two-element quad and then a six-element quad (two matched bays of three). All worked very well, but some were rather cumbersome. However, the enclosed design worked best, all things considered. It does not need any matching. Try it, you'll like it." You can't argue with success!

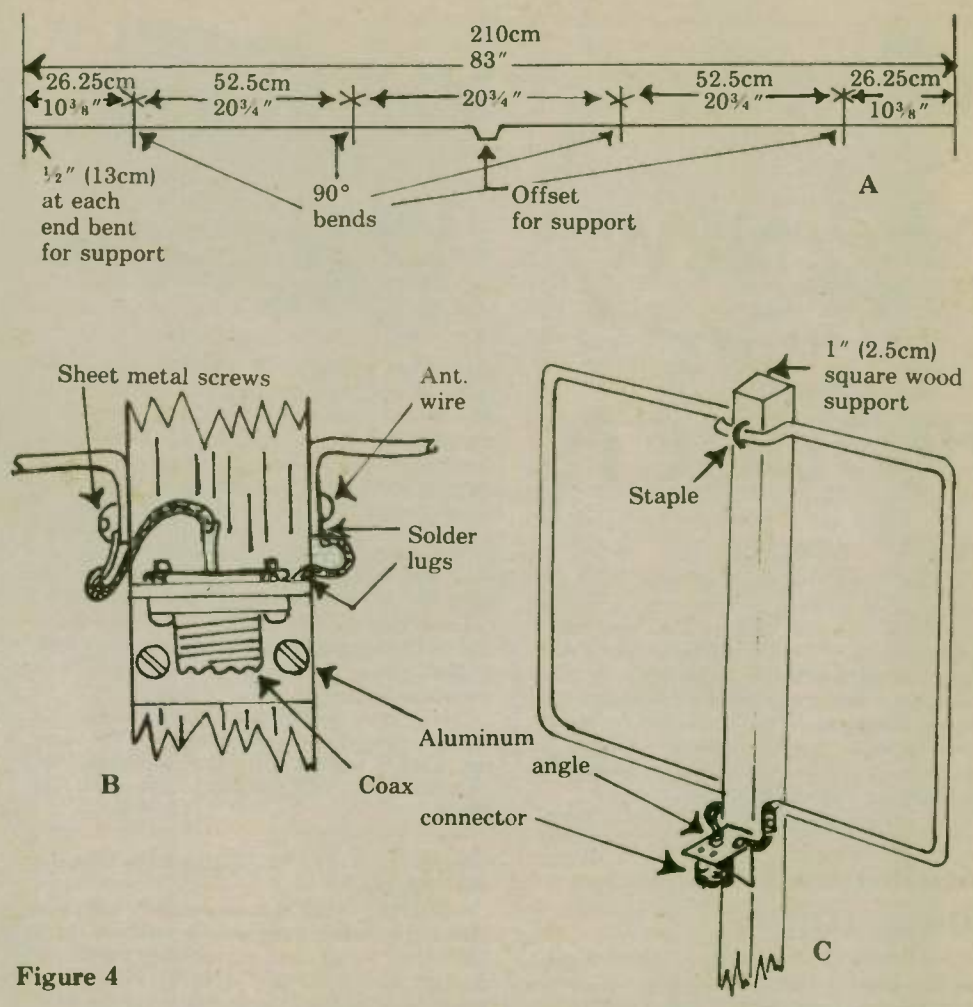


Figure 4

USQS

(*continued from page 41*)

KA6LAF	W6NOL	W6PQZ	KU6T	AE6V	KA7ABF	W7CB	VE7DXI
WA6LER	W6NTX	W6PRT	WB6TGD	KA6V	N7ABJ	N7CBF	VE7DXM
KA6LGK	WA6NVA	KD6PY	W6THN	WA6VEF	KA7AHN	K7CCG	W7DYD
KA6LGW	KA6NVJ	WB6QGN	WB6TIJ	WB6VUY	WB7AIV	N7CET	AD7E
KA6LGX	KR6O	W6QIR	WB6TMF	WA6VZE	N7AKQ	N7CFG	WB7ECH
KA6LKO	KV6O	WB6QNT	W6TPC	W6WPO	N7ALG	N7CFO	KA7EEO
KA6LQQ	WB6OBF	N6QQ	WB6TPO	W6WPY	N7ANP	WB7CLU	W7EKM
KA6LSX	WA6OEZ	N6RT	W6TQG	W6WPO	WL7AUY	KA7CPZ	KA7EKM
KD6LV	K6OFR	W6RKP	N6TR	KK6X	N7AST	KA7CRO	N7ET
KA6LZD	W6OUL	W6RZP	W6UBJ	K6YA	N7AWD	WA7CRV	KA7FAK
KN6M	W6OVO	KH6SB	WA6UCI	N6YD	W7AYY	KA7CSE	KA7FBN
WB6MBF	K6OXU	W6SJF	WA6UFY	W6YMH	WB7BFK	W7CXX	VE7FBW
W6MCP	AE6P	KR6SKR	N6UH	WB6YQL	N7BIY	W7DAZ	KA7FIP
W6MDK	AK6P	W6SQP	W6UJB	K6YSK	K7BL	K7DBR	W7FP
KA6NBC	W6PBI	W6SRM	W6UM	W6YVK	VE7BLS	N7DF	KA7FRS
W6NBH	K6PDS	KA6SS	W6UQF	K6ZBV	N7BMA	W7DJU	KB7FX
N6ND	K6PFW	K6SVL	WA6UVK	K6ZOR	KA7BOJ	WA7DRP	KA7FXW
N6NF	W6PGM	KC6SVL	WB6UXK	WA6ZTF	WB7BVS	WB7DTS	WA7GCC
KA6NFW	W6PIO	N6SW	W6UZL	N6ZV	KA7BZG	KA7DUN	KA7GKF
WA6NHB	K6PJ	W6SYM	AC6V	WA6ZVN	WB7CAO	KN7DVN	KB7GL
K6HNZ	KA6IBD	KS6J	W6JXA				
KA6HQJ	KH6IJS	W6JAZ	KM6K				
KA6HST	WA6IMM	K6JCV	KA6KBQ				
KB6HW	KA6ING	KA6JDR	WA6KFX				
W6HXT	KB6IWW	WB6JMS	K6KKO				
W6IA	WA6IZT	KH6JRZ	KA6KMW				

WA4MMO	KQ5A	K5LZO	KA6BIM
WA4MQX	W5ADH	K5MM	WB6BNS
AK4N	N5AF	W5MYA	KA6BW
KC4ND	N5AFC	KB5OU	WB6BWS
WD4NNP	KA5AJV	WB5OVI	WD6BZS
N4NO	N5AXJ	KB5QA	AF6C
KA4NWF	AA5B	W5QWX	WA6CIE
N4NX	WB5BHS	K5RF	K6CL
WD4OBK	KA5BKV	W5RKT	KA6CVV
WB4OHZ	K5BM	WB5RSA	N6CW
KA4OIB	K5BZ	K5RX	N6CZJ
WD4ORB	KO5C	WA5SOG	KA6DBG
KW4P	WA5CBE	W5SOT	KA6DC
W4PNY	WB5CDW	W5SYB	KA6DCZ
W4PTT	W5CWQ	KA5T	WA6DDM
WA4PWF	KN5D	K5TGE	N6DFY
KA4RJC	WB5DDI	W5UAD	N6DHV
WA4RRB	WD5DHK	N5UD	N6DJM
KA4RYV	W5DIJ	W5UFA	W6DKT
AA4S	N5DO	WB5UIS	WD6DNV
WD4SAE	K5DW	WB5UZS	N6DPP
K4SET	W5DYH	KB5VF	KA6DUT
WA4SFF	KA5EGA	K5VWW	KA6DVN
W4SME	W5EIJ	WB5VZL	N6DWW
NF4T	KC5EM	KA5W	AA6DX
W4TFB	K5EOA	W5WG	WD6DXH
VE4TL	AD5F	WB5WHR	K6DYP
K4TP	WD5FBV	K5XE	KA6DZY
KB4TV	WD5FLK	WB5YDZ	WA6EEH
N4UU	WD5FMB	WB5YKD	KA6EM
W4UYC	WD5FMW	KB5YY	KA6EOT
KC4VA	K5FYV	W5ZKJ	WA6ESF
K4VAI	K5GD		KA6EVN
K4VBS	KA5GEX	AC6A	K6EWL
W4VBX	KA5GFJ	VE6ABR	K6EXQ
WA4VCB	KB5GI	W6ABW	KA6FFW
K4VHT	KA5GJO	W6ACL	WD6FIA
KB4VJ	WD5GUP	W6ADS	WD6FLB
AA4VK	WD5GXI	KH6AH	KA6FNS
WB4VQO	W5GZI	WH6AHZ	KA6FRY
K4VUD	WD5HER	WH6AKI	KA6FTA
W4VUL	KB5HG	WH6ALV	KA6GKU
WA4WQH	K5HM	WH6ANF	K6GXO
WA4WSM	KA5IGP	W6ASH	KH6H
W4WYX	KA5IJP	N6AV	KV6H
W4XC	WB5IJR	KA6AVS	NH6H
N4YF	W5IJU	N6AVX	WA6HAD
WA4YNP	KA5IMC	W6BC	W6HBE
W4YPY	WD5IOE	W6BCZ	WD6HBR
WB4YRB	WD5IRF	W6BDN	N6HC
WB4YVO	WB5JVT	VE6BE	WD6HCZ
KC4YY	WD5JZL	N6BFE	N6HI
W4ZE1	KM5K	N6BFO	KB6HM

PRODUCTS

MBA™ reader

C. Mike Lamb, President of AEA, Inc., announced that his firm is introducing a reader for Morse, Baudot and ASCII operation. Designated the MBA-RO (reader only), he said it is a state-of-the-art device using a 32-character vacuum fluorescent alphanumeric display. Lamb said the 32-character display allows for up to five words to be displayed at one time. This extended display is especially useful during high speed copy.

The equipment features include speed

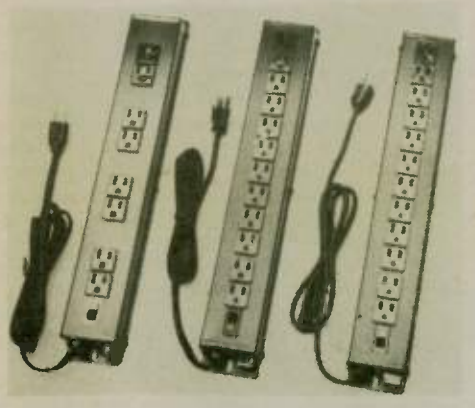
capabilities of up to 99 wpm for CW copy, 60-67-75 and 100 wpm for Baudot, and ASCII at 110 and hand-typed 300 baud. The MBA designer, Dr. Alan Chandler, said the MBA incorporates automatic speed tracking, assuring no loss of copy due to rapid speed changes in signal reception. He said the MBA requires a 12VDC external power supply, making it ideally suitable for portable, mobile or fixed operation. The MBA is compact in size and can be used with a hand key, bug or electronic key.

Lamb said the MBA reader is an ideal training device because it reinforces audio copy with visual copy and it visually monitors transmissions.

Prices and specifications are subject to change without notice or obligation. For more information, write to: Advanced Electronic Applications, Inc., P.O. Box 2160, Lynnwood, WA 98036. □

Multi-outlet AC power strips

These new MFJ multi-outlet AC power strips give you the most convenient and most protected way to power up any type of electronic gear.



• The MFJ-1104 has varistor protection against voltage spikes. Protection provided by this feature alone makes it well worth the investment to safeguard your computer, Amateur Radio, or other types of electronic gear from power line voltage surges.

This eight-socket power strip has individual double pi RFI filters for each of three pairs of outlets. This feature isolates radios, computers, and computer peripheals from interference. The fourth pair of sockets is unisolated and unswitched. All sockets are three prong grounding type.

The MFJ-1104 has a lighted switch that cuts off all but one pair of sockets, popout fuse for easy changing (15A, 125VAC), heavy-duty *three-wire 6-foot* power cord, and a deluxe heavy gauge aluminum case with black finish and easy mounting slots. It measures 18"L × 2¾"W × 1⅞"H. The MFJ-1104 is available from MFJ Enterprises, Inc. for $59.95 plus $4 shipping and handling.

• The MFJ-1103 with varistor voltage spike protection is like the MFJ-1104 except that it has 12 sockets (two unswitched) and one RFI filter for all sockets. All other features are the same. The MFJ-1103 is available from MFJ for $44.95 plus $4 for shipping and handling.

• The MFJ-1102 with varistor voltage spike protection is like the MFJ-1103 except that it has NO RFI filtering. The MFJ-1102 is available from MFJ for $34.95 plus $4 shipping and handling.

• The MFJ-1101 has six sockets (all three prong grounding type), fuse protection (15A, 125VAC), on/off switch, lighted on/off indicator, and a three-wire heavy-duty 6-foot power cable. It has a steel case finished in hammer tone grey with convenient mounting slots. It measures 13⅛"L × 2⅜"W × 1½"H. The MFJ-1101 is available from MFJ for $19.95 plus $4 for shipping and handling.

• The MFJ-1100 is like the MFJ-1101 but with five sockets and NO switch or light. It measures 8⅝"L × 2⅜"W × 1½"H. The MFJ-1100 is available from MFJ for $14.95 plus $4 for shipping and handling.

If bought from MFJ there is a 30-day money-back trial period. If you are not satisfied, you may return it within 30 days for a full refund (less shipping). MFJ also provides a one year unconditional warranty.

To order, call toll free 800-647-1800 or mail order with check or money order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762. □

New edition of 'top secret' registry

An all-new Fourth Edition of the popular scanner data publication, *The "Top Secret" Registry of U.S. Government Radio Frequencies*, by Tom Kneitel, K2AES, has been released by CRB Research.

The new edition is in a new and handy 5¼-by-8½-inch format, and has grown to a big 120 pages containing about 50,000 frequency listings! This unique book contains scanner frequency listings for federal operations including Secret Service; Border Patrol; Immigration; FBI; DEA; Customs Service; Treasury; Alcohol, Tobacco and Firearms; CIA; all military services; military/civilian satellites operating below 470 MHz; and also detailed listings for the hot "military UHF aero band" (225 to 400 MHz).

The new edition also lists frequencies of major suppliers to the government in the fields of electronics, avionics, aerospace, missiles, ordinance, shipbuilding, aviation, etc. In addition, the book now lists many scientific laboratories, astronomical observatories, the space shuttle, and other similar facilities. A special section lists hundreds of call signs and tactical identifiers.

The invaluable introductory information contained in the book has been rewritten and expanded for this new edition, revealing monitoring tips and techniques for getting the most from your scanner on federal frequency bands. The author even tells about speech scrambling (and how to unscramble it), how to get QSL cards (and when *not* to try), and there is a discussion of antennas and coaxial cables for best results. There's even a listing of "buzzwords" — special lingo used by surveillance agents during radio communications.

No other scanner publication is anything quite like this new book. Gives you the frequencies used by the White House staff, by the CIA and FBI schools, by the U.S. Mint, even those used for surveillance and "bugs." Many frequencies are shown with special code names used to describe them and many repeater frequencies include information on their input frequencies.

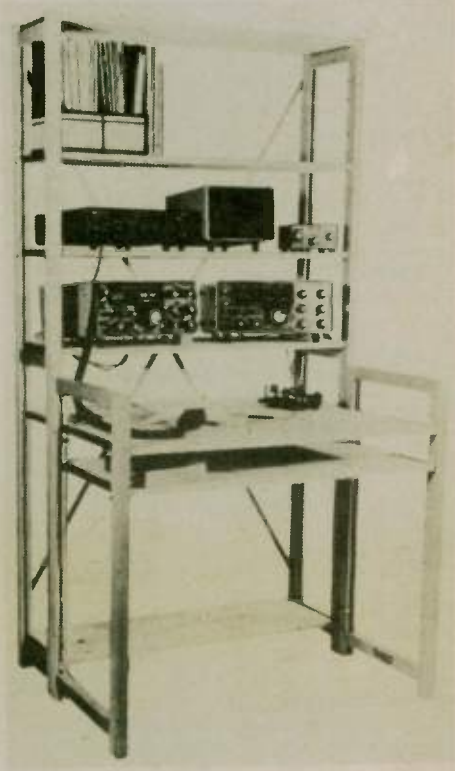
The Fourth Edition of Tom Kneitel's *"Top Secret" Registry of U.S. Government Radio Frequencies* is $9.95 per copy, plus $1 for speedy first class mailing, from its publisher: CRB Research, Box 56, Commack, NY 11725.

Shack Desk

Ricker Equipment, Inc. of Fort Wayne, Indiana, has introduced a new and unique operating desk for use with Amateur Radio equipment and computers, called "Shack Desk." It differs in form from other pieces presently available. It makes more use of the cubage above desk top level than any other unit on the market. Shack Desk is made of wood, prefabricated uprights and lumber shelves. The shelves are edge-glued, solid lumber designed to carry amateur gear weight loads, including linear amplifiers.

The standard Shack Desk provides a desk top 30 inches deep by 36 inches wide with four shelves above the desk top level that are 12 inches deep and 36 inches wide. A second inch deep, 36-inch wide shelf under the desk top level will provide handy storage for reference material. All shelves are vertically adjustable on 2-inch centers for position, including the desk top level.

The unit is completely open construction at the sides and back for maximum air circulation. The user may enclose the ends or back if desired, with lumber or paneling readily available. The openness allows the equipment to project out the back if necessary. Many of the modern units will sit on a 12-inch shelf. Shack Desk offers a fine solution to amateurs



who are working under crowded conditions, making it possible to go up rather than spread outward. It also offers an excellent solution for the amateur in a small home, or one operating out of a closet-size space.

For amateurs with plenty of space, there are larger size Shack Desk units available. The unit is available 42 inches wide or in double wide units of 72 or 84 inches. An option side shelf unit may be attached to the desk with 12-inch deep shelves top-to-bottom. These can be used for additional equipment and/or a technical library. A deeper unit is also available with upper shelves 18 inches deep and a desk top 36-by-36 inches. Shack Desk is sold unfinished with the particular finish left up to the individual user. It is a comparatively simple job to put a finish on any unit.

For further information on Shack Desk, contact Ricker Equipment, Inc., P.O. Box 12304, Fort Wayne, IN 46863. 219/745-0825. □

Seeing double?

If you should receive duplicate issues some month, and one of them has only your name, call and address, and no computer number, you have been selected to pass the extra copy on to a ham who may be interested in seeing the paper. Pass it on.

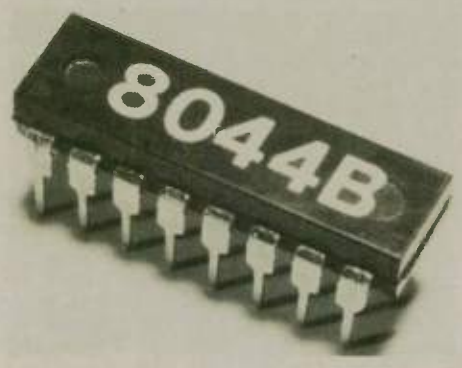
Keyer chip adds iambic mode 'B'

Not all Morse operators realize there are two basic types of iambic operation used in modern electronic keyers. Type "A," offered by the standard Curtis 8044, does not produce a following alternate element when a squeeze is released during an element (an element is a dot or a dash). Type "B," employed by manufacturers such as Ten-Tec, Nye, Heath, the Accukeyer and others do produce a following alternate element after squeeze release. For example, in a type "A" instrument, squeeze release during the "dah" in the letter "A" will produce just the "A." In a type "B" unit, the same action will produce an "R." Similarly, in an "N," squeeze release during the "dit" produces an "N" with type "A" and a "K" with type "B" units.

In order to provide for both user groups, Curtis Electro Devices has designed a new IC called the 8044B (8044BM if the speedmeter function is included). Priced the same as the standard 8044 (and 8044M), the new chip is pin-for-pin compatible and can be used in any existing 8044 socket (or 8043 socket with slight modifications). This is good news for operators who trained on the type "B" models.

The 8044B is priced at $14.95 in single piece quantities, the 8044BM at $19.95; both are FOB factory and available from stock.

For further information, contact Curtis Electro Devices, Inc., Box 4090, Mountain View, CA 94040, or call (415) 494-7223.

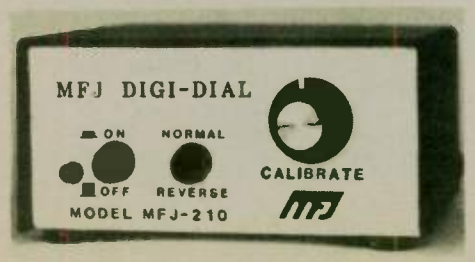


Digital Dial Adapter

The MFJ-210, Digital Dial Adapter, is an all-new product that will let you read out your frequency on your frequency counter from your ham band only receiver or transceiver.

If you have a frequency counter, the Digital Dial Adapter is a must for your ham shack.

Your frequency counter works fine when you transmit a carrier, right? But what does it do when you go to the receive mode or transmit an SSB signal? Just a lot of random numbers? Now you can solve this problem with the Digital Dial Adapter.



Just place the Digital Dial Adapter between your VFO output and frequency counter. Now you can read your VFO frequency directly or if your VFO operates backwards (when VFO frequency goes up, actual frequency goes down), the Digital Dial Adapter will compensate for this with just a flip of a switch.

If you are on the 7 MHz band and your frequency counter reads .27550, you know you are on 7.27550 MHz. (If a number should appear to the left of the decimal on your counter, it should be disregarded).

The MFJ-210 has a calibration knob on the front panel so you can calibrate it easily when bands are changed. This also lets you compensate for heterodyning errors which might occur within your rig as well as those caused by switching from upper to lower sideband or CW.

The MFJ-210 is designed to work with rigs that have a VFO tuning range of 5.0-5.5 MHz. This includes most Kenwood, Drake, Ten-Tec, Heath and some Yaesu rigs.

There is a second model, the MFJ-211, that is designed to work with the Yaesu FT-101 series and other rigs that have a VFO tuning range of 8.7 to 9.2 MHz.

When ordering please specify which model number you need.

The MFJ-210 and 211 measure 3x4x1 inches and are black and eggshell-white in color. There is a red LED to indicate "on."

If ordered from MFJ, there is a 30-day money back trial period. If you are not satisfied you may return it within 30 days for a full refund (less shipping and handling). MFJ also provides a one-year unconditional warranty.

The MFJ-210 and MFJ-211 are available from MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762. They sell for $59.95 (plus $4 for shipping and handling). To order, call toll free 800-647-1800 (VISA and Master Charge accepted) or send check or mney order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762.

Dual-head microphone

Radio Shack, a division of Tandy Corporation, is now offering an inexpensive dual-head microphone for stereo recording, club, concert, public address and conference use. The Realistic® Dual-Head Microphone (33-1065) is available now for $19.95 at Radio Shack stores and participating dealers.

Ideal for portable stereo recorders, the Realistic Dual-Head Microphone boasts 50-15,000 Hz frequency response. The twin mike heads can be adjusted up to 90 degrees each — 180 degrees total — for optimum pickup. Foam windscreens are included. And a desk stand is built into the sleek, handsome case.

Connection to recorders, amplifiers and so on is through two ⅛-inch mini-plugs. A standard AA battery (not included) is required for operation.

The Realistic Dual-Head Microphone, in addition to its obvious usefulness in recording stereo, can be also used in many situations where multiple microphones are needed. This includes stage miking, conference miking and so on.

Communications Filter

The new MFJ-732 DXer's communications filter puts more presence into SSB, AM, and FM voice communications, to bring more signals out of the noise.

The MFJ-732 is easy to use; just push up to four buttons to bring in different filter stages. It utilizes an all new 10 pole, five-stage circuit with chebyshev superfast roll-off (up to 58dB/octave). Select upper frequency cut-offs at 3,000 Hz, 2,200 Hz, or 1,500 Hz with lower frequency cut offs at 300 Hz or 500 Hz.

It has a built-in 3-inch speaker with a 2 watt amplifier. A red LED indicates ON. The MFJ-732 measures 1⅝"H × 6"D × 5"W. The all-aluminum cabinet provides RF shielding and has an eggshell-white front with black top and sides. The MFJ-732 operates on 9-18VDC or 110VAC with optional AC adapter ($7.95).

If bought from MFJ, there is a 30-day money back trial period. If you are not satisifed, you may return it within 30 days for a full refund (less shipping). MFJ also provides a one year unconditional warranty.

The MFJ-732 is available from MFJ Enterprises, Inc. for $69.95 plus $4 for shipping and handling.

To order, call toll free 800-647-1800 or mail order with check or money order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762.

ETCO catalog

Shades of yesteryear with bargains reminiscent of the '60's . . . along with exciting new offerings from the "space age" product boom of the '80s make the new fall ETCO catalog undoubtedly one of their best issues ever.

Imagine . . . wall telephones $6.95, speakers 99¢, 2,400-foot rolls of recording tape 99¢, quad amplifiers $29.95, varactor tuners $3.95, plus hundreds upon hundreds of amazing bargain offers for hobbyists, schools, technicians and industry.

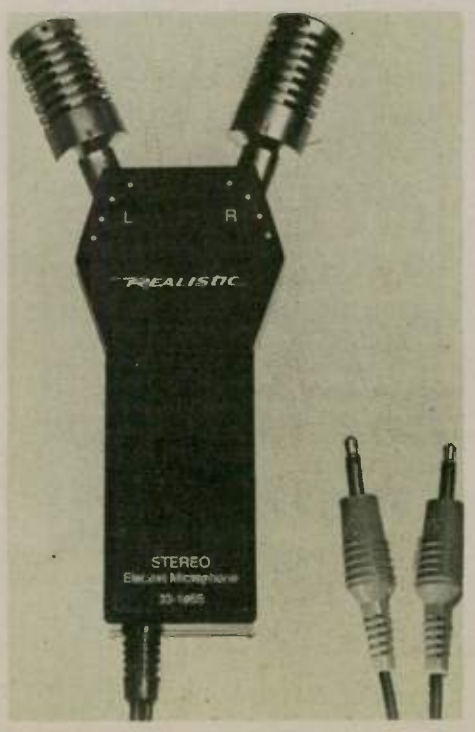
In this catalog are some exciting new products! A combination video enhancer and copyguard stabilizer for only $99.95. The exciting PRO-80 Z-80 based microcomputer kit at $169.95. Both these brand new items are available only from ETCO.

For cable TV and video buffs — the world's largest assortment of cable TV converters, hundreds of video recording accessories along with microwave down-converters and hard to find cable TV accessories make this catalog of super interest.

Looking for hard-to-find tubes? Page 91 lists over 1,700 different types—all at prices far below list price. Telephones and accessories? You betcha!—seven pages crammed with some of the best offers in America!

Video cameras for $189.95, wireless microphones $29.95, quad headphones $19.95, wireless telephones $199.95, UV blacklites $19.95. The list goes on and on through 96 pages crammed with hundreds upon hundreds of truly fascinating offers.

This super electronic parts and equipment catalog is must reading for school instructors, video buffs, technicians, industrial buyers, hams and hobbyists. To order this catalog, write to: ETCO Electronics, Dept. 388, Box 796, Plattsburgh, NY 12901.



Hand-held transceiver

Encomm, Inc. has announced the addition of the ST-7/T 440 MHz synthesized hand-held transceiver for use in the 440-449.995 MHz Amateur Radio band to the Santec line of hand-held radios.

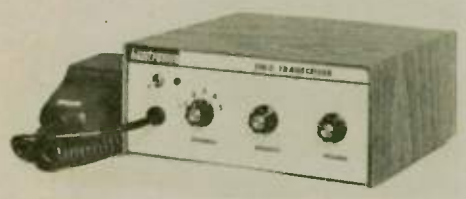
This compact UHF package has a nominal 3 watts output power from the transmitter and incorporates all 16 tone DTMF tones and an optional synthesized CTCSS encoder capability, which is switched from a front panel on-off switch. The high power level is backed up by the capability to switch to either 1 watt or as low as 50 milliwatts for battery saving applications.

The styling of the ST-7/T is quite similar to the extremely popular Santec HT-1200 2-meter unit. In fact, all of the external accessories for the 2-meter are compatible with the ST-7/T operation, too. Both the receiver and transmitter cover the full band of 440 FM to provide true universal compatibility with the ARRL band plan for 440 MHz. Offset of the transmitter from the dialed receiver frequency is accomplished at the flick of a three-position switch which provides for direct operation on the same frequency and up or down 5 MHz for the standard repeater offset. Another switch feature is the immediate access to the national calling frequency of 446.000 MHz (SPX) by actuating a single slide switch.

The ST-7/T features a micro-thumb-wheel frequency selector switch to provide positive readout and control of the CMOS PLL synthesizer plus a metalized center body to provide better antenna efficiency. The antenna is a full quarter-wave flex antenna which mounts on the BNC connector. This provides easy attachment of other accessories.

VHF FM transceivers

Hamtronics, Inc. — well-known for high quality FM transmitter, receiver, and power amplifier modules, now has a complete VHF FM transceiver all on one PC board. The new model FM-5 Transceiver Kit is available for the 6M, 2M, 220 MHz ham bands, and may also be used in some countries on adjacent commercial bands. It operates on up to five channels at 10 watts output. The receiver uses 10 poles of IF filtering and dual gate mos-fets for superior selectivity and cross mod rejection.



By mounting all components — including controls and heatsinks — right on the main PC board, construction is simplified and cost is reduced. The complete kit for this unit is only $159.95. Cabinets, microphones and crystals are readily available as options.

For further information, including a 40-page catalog of all Hamtronics® kits, contact Hamtronics, Inc., 65F Moul Rd., Hilton, NY 14468 or phone 716-392-9430. (For overseas mailing, please send $2 or five IRCs.) □

Super keyboard

The all new MFJ Super Keyboard Model MFJ-494 is a full-fledged keyboard that sends CW, Baudot and ASCII with 50-character text buffer, 30-character programmable message memory, four automatic messages, two random code practice modes, speed and buffer metering, backspace delete function, buffer memory hold function, and just plug in your paddle and it's a full function keyer. Simple one or two keystroke combinations execute all commands.

The 50-character text buffer can be filled prior to sending (pre-programmed), or it can be filled at any given speed if you type faster than the code is being sent. When the buffer approaches full, the sidetone pitch changes and a red LED comes on to warn you to slow down typing to prevent buffer overflow.

The 30 characters of programmable memory provide enough memory for contester or DXer when used in conjunction with the four automatic messages contained in the keyboard. The four automatic messages let you call CQ, CQ TEST, QRZ and ID without using all of your programmable memory.

Two code practice modes let you increase your code proficiency. The first mode is pure random code with random length groups. The second mode is five-letter groups with eight separate repeatable list (with answers) to check your learning progress. Space between letters may be expanded to improve recognition in both modes, and in the second mode you may select alphabet only or alphanumeric plus punctuation.

A meter tells you your sending speed (speed may be set before sending begins), or just push a button and the meter tells you how much buffer you have used and how much you have left.

The super keyboard will forgive you for making errors while the buffer is in use. To correct an error, simply backspace over the error and resume typing.

A buffer memory hold function lets you hold the buffer memory or pause without losing the buffer. You can send with paddles while the buffer is being held which makes it perfect for operating full break-in.

A push button lets you key your rig continuously for tuning and testing and a two keystroke combination gives you continuous dits for tuning and testing that extends the life of your finals.

To top it all off, the super keyboard is also a full function keyer. Just plug in your paddles and it's ready to go with automatic and programmable memories. It has iambic operation and dot-dash memory.

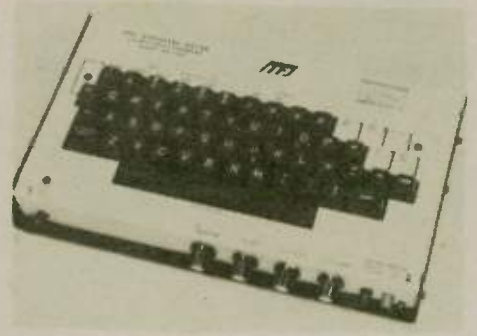
Five-level Baudot is transmitted at 60 wpm. RTTY and CW ID are provided via the ID button and message A. Carriage return, line feed, and letters are sent automatically on the first space after 63 characters on a line. All up and down shift is done automatically. A down shift occurs on every space to quickly clear any garbles in reception. The Baudot mode also includes all applicable features of the CW mode.

In the ASCII mode, transmission speed is 110 band. Both upper and lower case are generated and all the features of the Baudot mode are included here also.

A lot of thought has gone into human engineering the super keyboard. For example, all controls and keys are positioned logically and labeled clearly for instant recognition. Pots are used for speed, volume, tone, and weight because they are easier to use than keystroke sequences and they remember your settings even if power is lost or turned off.

The MFJ-494 operates on 9-12VDC or 110VAC with optional AC adapter ($7.95). The same ultra-reliable keying circuit that MFJ keyers are famous for is used in the MFJ-494.

Available options for the MFJ-494 include the MFJ-53, afsk plug-in module. The output of the module plugs into the mic or phone patch jack for fsk with SSB rigs and afsk with FM or AM rigs. The MFJ-53 is available from MFJ for $39.95. The MFJ-54, Loop Keying, plug-in module is a 300V, 60mA, loop keying circuit that will drive your RTTY printer. The MFJ-54 is available from MFJ for $29.95.



If ordered from MFJ, there is a 30-day money back trial period. If you are not satisfied, you may return it within 30 days for a full refund (less shipping). MFJ also provided a one year unconditional warranty.

The MFJ Super Keyboard, Model MFJ-494, is available from MFJ for $279.95 plus $5 shipping and handling.

To order, call toll free 800-647-1800 or mail order with a check or money order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762. □

CW computer interface

The new MFJ-1200 CW Computer Interface converts audio from your receiver to TTL or RS-232 so your computer can "understand" it. It also lets your computer output key your transmitter.

When combined with a personal computer and an appropriate program, the MFJ-1200 can give you a complete and very versatile CW keyboard/reader combination.

For receiving CW, the MFJ-1200 processes the received CW audio from your rig to provide a clean, computer compatible, TTL or RS-232 level. First the MFJ-1200 limits the noise on incoming CW signals, then filters it to remove interfering signals, sends the desired signal through a detection stage, post-filters the detected signal (this really works to clean out interference), shapes the signal, and finally shifts the level of the signal to TTL or RS-232 so your computer can use it.

For transmitting CW, the MFJ-1200 takes keyboard-generated CW at TTL or RS-232 output levels from your computer and drives high voltage keying circuits to key your tube or solid-state transmitter (−300V, 10mA max., +300V, 100mA max.).

The MFJ-1200 has three red LEDs to indicate tuning, transmit mode, and on. A reverse/normal switch will invert the output level to the computer if desired. It operates on 6-9VDC or 110VAC with the optional MFJ-1309 AC supply ($9.95).

The all-aluminum cabinet is black and eggshell-white and measures 6 × 1¾ × 3 inches.

The MFJ-1200 is available from MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762 for $69.95 (plus $4 shipping and handling).

All products ordered from MFJ have a 30-day money back trial period. If not completely satisfied, just return it within 30 days for a full refund (less shipping and handling). There is also a one year unconditional warranty.

To order, call toll free 800-647-1800 (VISA and Master Charge accepted) or send check or money order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762. □

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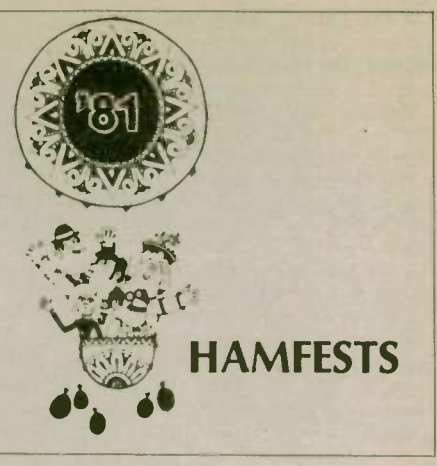


Indiana

The Third Annual Saturday Night FUNFEST will be presented by the Fort Wayne Radio Club on 14 November 1981, 7:00 to 11:00 p.m., at the Holiday Inn, 3330 West California Road, Fort Wayne.

This fun-filled evening will include several exhibits, prizes (special prizes will be given to the ladies), and a special program featuring a slide documentary — "Downtown disaster: explosion, fire, chaos" — presented by Mr. Walt Stout, Fort Wayne's traffic engineer. Mr. Stout was a member of the Richmond, Indiana Police Department at the time of the disaster. Theme of the program will be Amateur Radio assistance in radio communications. The program will be given twice: 8:15 and 9:30 p.m.

Admission is $3.50 in advance, $4 at the door. $1 of the cost of your ticket includes your major prize drawing ticket for an ICOM-2AT handi-talkie. Additional major prize raffle tickets can be purchased at the FUNFEST. Order tickets from Carole Burke, WB9RUS; Bill Evans, KB9H; Kryder Electronics; AC-ARTS; or at any Fort Wayne Radio Club meeting.

If you are planning to stay overnight in Fort Wayne, you can get your Holiday Inn room registration card and FUNFEST tickets with your hamfest tickets by writing to AC-ARTS, P.O. Box 342, Fort Wayne, IN 46801. A special drawing will be held for out-of-town guests registered at the Holiday Inn, with the winner receiving his room free courtesy of Fort Wayne Radio Club and Holiday Inn. □

Indiana

The Allen County Amateur Radio Technical Society, Inc. will hold the 9th Annual Fort Wayne Hamfest on 15 November 1981 from 8:00 a.m. to 4:00 p.m. at the Allen County Memorial Coliseum, Fort Wayne, Indiana.

Large flea market, forums, door prizes. Admission is $2.50 in advance or $3 at the door. Children 11 years old and under admitted free. The Coliseum charges a $1 parking fee.

Talk-in will be on 146.28/.88.

Limited vendor drive-in for unloading available from 5:00 a.m. to 7:00 a.m. and after 4:00 p.m. for reloading. Tables are $6 each with premium tables at $20. Premium tables are on arena perimeter with curtain backdrop, AC power, and personal attention (food service, etc.).

For more information or pre-registration, write to the Allen County Amateur Radio Technical Society, Inc., P.O. Box 10342, Fort Wayne, 46851 Attn: Hamfest Committee. □

Louisiana ARRL convention

A rare weekend opportunity for Gulf Coast Amateur Radio operators to upgrade their licenses will be provided during Amacom '81, the annual convention of Amateur Radio and home computer hobbyists, 17-18 October at the Airport Hilton Inn, 901 Airline Highway, Kenner, Louisiana.

The FCC's New Orleans field engineering office staff will conduct tests for all but the Novice level starting at noon on Saturday, 17 October, at Our Lady of Perpetual Help School, 530 Minor St., Kenner. Applicants should bring copies of their licenses to the test.

Discussion of satellite communications, Amateur Radio's pioneering contributions to electronics, repeater linking and computers will be held throughout the convention, sponsored by the 25-year-old Jefferson Amateur Radio Club.

W.D. "Bill" Bushnell, chairman, said Amacom '81 has been designated the state convention for the Louisiana Section of the American Radio Relay League.

Meetings are scheduled with officials of the FCC, the ARRL and the Army and Navy Military Affiliate Radio Services.

The flea market, where electronic hobbyists may swap and trade their used gadgets, will be held inside for the first time in Amacom history.

A full schedule of women's events will be conducted during Amacom, with evening events planned for Saturday.

Radio amateurs may use Southern Repeater Association repeaters on 147.69/.09 MHz for guidance to the convention site. Call W.D. "Bill" Bushnell, chairman, 504-887-5022, for more details. □

Massachusetts

The Wellesley Amateur Radio Society will sponsor a tailgate flea market on Saturday, 10 October starting at 9:00 a.m. The location will be the Wellesley High School, 50 Rice Street, Wellesley Hills, Massachusetts, just off Route 16. Admission will be $1 per person, whether buying or selling.

Talk-in on 147.63/03.

For further information, contact Nels Anderson, K1UR, at 617-323-5029. □

New York

The Tu-Boro Amateur Radio Club will hold a mini-flea market and auction on Sunday, 28 October 1981 at the Oddfellows Hall, 149-14 14th Avenue, Whitestone, New York. Admission is $1 donation. For table space reservations, please contact, Marty Small, WA2APT at (212) 359-6923. Contact Ed Beinlich, WB2IBQ at (212) 746-4080 for other information.

Talk-in on 145.62 simplex. □

Ohio

The Defiance County Amateur Radio Club will sponsor the Defiance County Hamfest and Flea Market on Sunday, 1 November. The 'fest will be held on the Defiance County fairgrounds in Hicksville, Ohio from 8:00 a.m. to 4:00 p.m.

Acres of free parking, a large heated building, ample trunk sales space (free), and table spaces will be provided. Free overnight camping (night of 31 October, no hookups) and food will also be offered. Cost of reserving tables in advance is $5. Admission price is $1.50 in advance, $2 at the gate.

Doors open for dealers only to set up at 4:00 p.m. on 31 October. A 2-meter mobile will be given away as first prize.

All hamfest inquiries and table reservations should be directed to: Ed Ballard, Jr., WD8JVV, RR1 Roland Road, Sherwood, OH 43556. RSVP 1-419-899-4209. □

Ohio

The 24th annual auction, Auctionfest 81, sponsored by the Massillon Amateur Radio Club will be held on Sunday, 8 November 1981 from 8:00 a.m. to 4:00 p.m. at the Massillon Knights of Columbus Hall on Cherry Rd., Massillon, Ohio. The flea market opens at 8:00 a.m. with auction action to start at 11:00 a.m.

Auctionfest 81 prizes include a Kenwood TS130S, Ten Tec Argosy 515, ICOM IC2AT and a Bird Ham Mate plus many door prizes to be given away hourly. Dealer tables are $3 per 8-foot table, tickets are $2.50 advanced or $3 at the door.

For further information or table reservations, contact Steve Nevel, WD8MIJ, 1864 Massachusetts Ave., SE, Massillon, OH 44646. Please include an SASE. □

Pennsylvania

The Foothills Amateur Radio Club will hold its annual Swap and Shop on Saturday, 7 November 1981, at St. Bruno's Church in South Greensburg, Pennsylvania.

Doors will be open from 9:00 a.m. until 3:00 p.m. Registration is $2 each or 3/$5. All indoor facilities. Main prize is a Kenwood TS-530S HF rig. First prize is an ICOM IC-2A hand-held.

Talk-in on 146.07/.67 and 146.52 simplex.

For advanced table reservation phone Chuck Hamman, WB3HZM at (412) 837-9194 after 5:00 p.m. □

CONTESTS

North Carolina QSO Party

Two periods GMT: 1700 Saturday, 14 November to 0200 Sunday, 15 November; and 1200 Sunday, 15 November to 0100 Monday 16 November.

This year's party is again sponsored by the Alamance Amateur Radio Club and has been expanded to include many new categories and awards. The same station can be worked on each band and mode. Crossband and repeater contacts are not permitted. North Carolina stations may work each other for QSO and multiplier credit.

Exchange: RS(T) and QTH. County for North Carolina; ARRL section for others.

Scoring: For North Carolina — One point per QSO multiply total by sum of ARRL sections (73) and North Carolina counties (100) worked (maximum multiplier 173). DX contacts count only for QSO points.

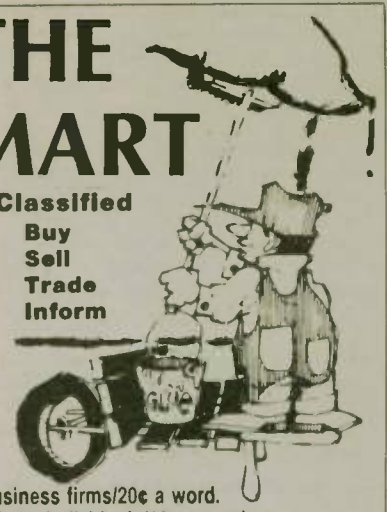
Out-of-state — Two points for each North Carolina contact. Multiply total by North Carolina counties worked (Maximum of 100).

Frequencies: CW — 3560, 7060, 14060, 21060, 28060. SSB — 3980, 7280, 14280, 21380, 28580. Novice/Tech — 3720, 7120, 21120, 28120. VHF — 50.050, 50.110, 144.050, 144.200.

Awards: 1982 U.S. Callbook and certificate to overall top North Carolina and out-of-state single operator scorer. Certificates to top scorer, CW, SSB, Mobile, VHF and Novice/Technician categories in each ARRL section and North Carolina county. Name of top Alamance ARC member added to perpetual trophy.

Send logs and summary sheet showing essential details and certification. Include two 18¢ stamps for results. Mailing deadline is 12 December. Send to Bob Wang, KQ4M, P.O. Box 777, Hillsborough, NC 27278. □

THE MART



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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.

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Rubber stamps fast — 3 lines or 1" call only $3.00. W6LXW, 905 Pine Tree Lane, Aptos, CA 95003.

Scanning disc televisions or parts wanted by collector. Bill Russell, 6463½ Fulton Ave, Van Nuys, CA 91401.

Beginners' RTTY Handbook still only $4.50. Bibliography of RTTY articles $1.00, both plus large SASE (41¢ stamp). RTTY JOURNAL, POB RY, Cardiff-by-the-Sea, CA 92007.

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MACK'S TUBES. $1.26 per tube, new or used. Guaranteed 90 days. "Old" radio types, too, at special prices. 5 tubes or more, 10% discount. With order add $2.00 postage and handling. No C.O.D. Send SASE for list. 2565 Portola Dr., Ste 4, Santa Cruz, CA 95062.

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CODE PROFICIENCY DRILLS are transmitted from WB3IVO, Brass Pounders ARC, each Saturday and Sunday starting 2000 GMT on 7060 kHz, and each Saturday and Tuesday starting at 0200 GMT on 3560 kHz. Speed ranges from 20-60 wpm.

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