Worldradio

Year 12, Issue 6 December 1982 • 80¢

Keith Crandall, K6QIF and Reuben Meeks Jr., K6GUC participate in the ARRL's Simulated Emergency Test.

Simulated Emergency Test

Norm Brooks, K6FO

Have you ever participated in a Simulated Emergency Test with the feeling that we radio amateurs were the only people interested in emergency preparedness? We have, many times in the past. But on 16 October 1982 in Northern California, things were different. It seemed *everybody* was involved in the SET, and it was a great success.

Worldradio made the rounds of SET locations in the Sacramento area to see what was going on. Here is the story in words and pictures.

Keith Crandall, K6QIF/AAR9NT, Sacramento County Emergency Coordinator for ARRL, was actively directing Amateur Radio operations in a scenario provided by Ron Manet, N6AUB, ARRL's Sacramento Valley Emergency Coordinator of Cedar Ridge, California. The scenario players included the National Weather Service, NWS/SKYWARN net control stations, California State Office of Emergency Services, as well as city, county and other emergency services in the northern two-thirds of California.

In this simulated situation, Northern California is drenched in a record rainfall and snowfall. The National Weather Service has released a weather advisory saying more precipitation is on the way. Streams and rivers are beginning to overflow their banks, and localized flooding began in the foothills and mountains. In addition, tides of approximately 10 feet are expected to inundate the Delta area. Some earthfill dams are beginning to show signs of seepage. The State Office of Emergency Services (OES) and county OES agencies are operating on a full scale 24-hour basis.

VHF repeaters are in service, most notably the WR6AEN (146.91 −600) Amateur Emergency Net repeater in Sacramento. Ron Manet is found on the Grass Valley repeater (147.12 +600). The Army MARS repeater (143.99/148.01) is

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The real thing

Lenore Jensen, W6NAZ

When the "devil winds" roared in from the desert to cause havoc in three Southern California counties, 9-10 October, the San Fernando Valley Red Cross was one unit that was suddenly activated. It requested ham help and received it promptly.

Hundreds of residents were evacuated before the rampaging flames as millions of dollars worth of homes went up in smoke and 60,000 acres of trees and brush turned the green and golden hills into ugly charred ruins.

Early Saturday morning, Bob Bright, WA6AQQ — in charge of communications at the Van Nuys headquarters — and Jerry Fire, WB6YEQ were setting up 2-meter base stations.

Meanwhile, ARES District Emergency Coordinator for Northwest Los Angeles County — Len Drayton, WA6LAU — had been holding a breakfast meeting to plan a Simulated Emergency Test (SET) for the following week. He noticed ominous smoke billowing from west of the huge valley. Hurrying to the Red Cross with Wally Foster, N6CDJ, he started to contact ARES volunteers and soon had a team gathering mobile gear.

Because the holocaust in the Santa Monica Mountains was pushed by fierce

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U.S. amateurs get 10 MHz

At 3:00 p.m. EDT, 28 October, FCC released the major portion of the 10 MHz band for use by amateurs in its jurisdiction. Effective immediately, U.S. amateurs holding General, Advanced and Extra Class licenses may use up to 250 watts input and A1 and F1 emissions in the band segments 10.100-10.109 and 10.115-10.150 MHz. These emissions include CW and RTTY operation; voice modes are not permitted. The segment 10.109-10.115 MHz is not available at this time because of daily use by a priority government radio service.

Amateur stations must avoid interfering with stations in the Fixed Service because the band is allocated on a primary basis to the Fixed Service, and these stations have priority. The amateur allocation is on a secondary non-interference basis.

— *The ARRL Letter* □

Cable TV company fined for interference

Fred Maia, W5YI

The FCC announced on 6 October that it has issued a Notice of Apparent Liability in the amount of $6,000 to Sonic Cable TV, an independent cable system of San Luis Obispo, California, "in view of Sonic's failure to correct signal leakage which interfered with 2-meter amateur operations in accordance with Section 76.605(A12)." This is thought to be the largest single fine ever levied by the FCC for interference to the Amateur Radio spectrum. Section 76.605(A12) specifies that permissible levels of radiation from the television cable system in the frequency range of over 54 and up to 216 MHz be limited to 20 microvolts/meter as measured at a distance of 10 feet.

Ironically, the fine comes a year to the day after Richard M. Helzer, WB6GVO — of neighboring Arroyo Grande, California — *measured "full-scale" S-meter readings making communications virtually impossible on 145.250 and 147.060 MHz in the 2-meter ham band.* Rich wrote the FCC in Long Beach, California and complained about the interference. The Engineer-in-Charge of the Long Beach District Office (L.D. Guy) wrote the offending cable company, reminding them that radiation from a CATV is regulated by various sections of Part 76 of the Commission's Rules. Sonic Cable TV was directed to communicate with Rich "to determine the nature of the impaired reception condition and attempt to resolve the complaint."

Additionally, the cable company was required to submit a written report which should "include a showing of whether or not electromagnetic energy radiates from the system so as to interfere with the reception of Amateur Radio equipment. If the radiation is excessive, describe the steps initiated to suppress the radiation." Rich told me last fall that he did receive a call from (in his words) a "not-so-friendly" representative of the CATV firm who didn't like being notified of the interference by the FCC. When Rich calmed him down, they discussed the problem. I was told at that time that nothing had yet been done to correct the problem.

In early October, I placed a call to Sonic Cable TV of San Luis Obispo and spoke to Steve Burrell, their Director of Community Development. He said he was notified of the fine by a local TV station, but that he had not received anything on it from the Commission. He also said the TV station mentioned something about a hearing and he knew nothing about that, either. Burrell said that if there was a hearing before the fine, his firm wasn't notified, and he didn't know how their firm could be fined without one. "I have no idea what these people are talking

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ATV on Everest

Amateur Television is at Mt. Everest! FSTV transmissions are being planned by the Canadian mountain climbing team to be sent from the peak of the mountain down to the base camps at Nepal, where live TV monitors will pick up the transmission. Several VE3-land radio amateurs are on the expedition with gear obtained from Tom O'Hara, W6ORG of PC Electronics, Arcadia, California and antennas from KLM Corporation.

The expedition is the first known of its kind to use Amateur Television, which will send beautiful full-color pictures from Mt. Everest back to ground stations. □

ARRL Net Directory now available

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″ × 12″ envelope with 71 cents U.S. postage to ARRL Net Directory, 225 Main Street, Newington, CT 06111. — *ARRL* □

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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.

Worldradio needs your help to reflect the invaluable service of Amateur Radio.

Through **Worldradio** you can make contact with other individuals who share your interests.

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Second-class postage paid at Sacramento, CA.

Info wanted on stolen equipment

The following radio equipment was stolen out of a vehicle in Salt Lake City, Utah on 1 October 1982, while awaiting transport. All items listed are the property of the Church of Jesus Christ of Latter-Day Saints (Mormons).

The Salt Lake City Police Department was contacted immediately and assigned a case number 82-88473. Investigations are in progress locally. Any information which might develop should be telephoned to the Salt Lake City Police Department, 450 South 300 East, Salt Lake City, UT 84111; telephone 801-535-7222.

Items	Serial #
1 ea. Dentron Model MT-3000-A Antenna Tuner	4602
1 ea. Dovetron, MPC 1,000 Radioteletype Terminal	R 629
1 ea. Kenwood Model TL-922 Linear Amplifier (Modified to also operate on 10 meters)	860058
1 ea. Jensen Model JTK-17, Engineer's Tool Kit	Nil
1 ea. Motorola Model MX 330 Hand-held with touch tone pad, 450 MHz Tx 469.500 / 464.50 RX 464.500 / 464.500 MHz	278ADE3917
1 ea. Motorola Base Station Control Unit Model T160BBM or T1608BM with desk mike.	UNK

We would greatly appreciate any information which may turn up on this incident. We also want to express thanks to any who may have occasion to check equipment against our published list. Call us collect.

W.J.C. FAHEY, K7FY
Communications Officer
Emergency Response Radio Systems □

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The Amateur Radio call signs did not arrive in time for the December issue.

Morse code exam credit to be given

In its 21 October meeting, FCC adopted an order allowing Morse code examination credit to anyone holding — currently or in the past five years — a valid U.S. commercial radiotelegraph license.

FCC ordered the adoption of rules defining a beacon station and permitting automatic operation of these stations. See February 1982 **QST** for details. FCC adopted an NPRM asking whether most logging requirements should be dropped. FCC also adopted an NPRM to revise procedures for administering the Novice Class exam so that only one form would be required to issue the license. No comment deadline has been set, but it is expected that FCC will allow 90 days from the date of issuance for interested parties to file comments in each NPRM.

Additional information on these matters will appear in December and January **QST** and in the 29 October issue of *The ARRL Letter.*
— ARRL □

New York amateur created 'E.T.' device

In a Westlink Amateur Radio news report of 8 August 1982, Jim Davis in Charleston, West Virginia spoke of the communications system created for Steven Spielberg's science fantasy film, "E.T. — The Extra-Terrestrial."

"As reported in an earlier Westlink newscast," said Jim, "this device was designed and built for the film by a New York City amateur — Henry Feinberg, K2SSQ."

"There were three things I wanted to accomplish when I was asked to design the communicator," Henry said. "The first thing was that I wanted it to be plausible. I didn't want somebody at Bell Labs or NASA to sit back, look at it and say, 'You know, that thing couldn't work.' The second thing was that I wanted to make it using as many readily identifiable materials as possible — materials found around the home. And the third thing was that I wanted as many of those objects as possible to fall within the child's realm."

"By the way," commented Jim, "there are two things that we've learned about the E.T. communicator. While it really doesn't create any RF energy, in theory it could be made to work the way it was shown in the film. And we also now know the text of the message the device was programmed to send wasn't gibberish or even some 'alien language.' It was actually Henry Feinberg." □

Strange stuff on 2M

"Ultra-long-range" cordless telephones could pose a new threat to Amateur Radio. Two such units are already being marketed for export use only, but at least one of these (Noncord DX Model NC-20M) is designed for transmit operation in the 143-147 MHz range. A flyer for the device claims a range of 20 miles and a power of 13 watts. Options include gain antennas and a 25 watt "booster" for increased range. Advertising states "operation can be portable (hand-carried) or mobile in a vehicle or an airplane."

These and similar units are illegal for use in the United States according to the FCC, but nowhere in the Noncord literature is this mentioned. If you discover one of these units operating illegally in the amateur 2-meter band, report it to your local FCC field office immediately. A similar advertisement for a unit called the Rova/Pro Cordless Long-Range Telephone does state their unit is not FCC-approved in the USA.

Thanks, KC5JK and *Westlink Report.*
—Mitre Bedford ARC, MA □

U.S. ATV Society

A5 ATV Magazine is revealing plans of legal formation of a United States ATV Society, comprised of leaders from FSTV, MSTV and SSTV ranks. The political organization will be active in protecting Amateur Television mode privileges, frequencies and standards and will be organizing for a possible FSTV Satellite portion of the proposed CABLESAT GENERAL C-transponder, to be launched in late 1985, announced by Raymond Kassis, WA4OHK.

Further information will be revealed in A5 ATV Magazine's January 1983 issue.

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Chuck Clark, K4ZN's Construction column will be back next month.

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FEATURES

COLUMNS

SET

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operational. Other repeaters involved in the exercise are WR6AGO Mt. Vaca Radio Club (147.00 −600); Mt. Zion (146.835 −600); and Foresthill (146.145 +600). HF participation included the Westcars Net on 7250 kHz and 3940 kHz in the early morning and night hours.

We visited the National Weather Service office on the 19th floor of a downtown building. We found Gary Wann, N6SQ/AAR9SO; Clint Savage, K6PWA/AAR9RX; and Don Irving, N6DRB operating there with an indoor Yagi pointed toward a window. Not far away, from a first floor operating room in the city hall, Joe Kiplinger, W6OHP was coordinating simulated city activities.

Our next stop was the National Guard Armory. We were amazed to find a large number of military personnel at work on the simulated emergency. At the Message Center, we observed Warrant Officer Jackie Gilman, KA6CSD; Major Frank Gilman, W6SVC; and Major Gordon Hoopes, KA6SET (how's *that* for an acronym in a call sign?)

The First Brigade of the California State Military Reserve was participating with Col. Lowell Akins in command.

In addition to the Message Center, there were Logistics (subsistence, billeting, material, services, transportation and airlift); Medical Liaison; Judge Advocate General (legal); and Provost Marshall (law enforcement) sections. There was a group in liaison with the State OES. A large map showed a realistic display of the deployment of simulated units in the northern part of the state.

Col. George Martin, Deputy Commanding Officer, explained that the California State Military Reserve (CSMR) could best be described as a reserve for the California National Guard. In any real national emergency, if the California National Guard were pulled out, the CSMR would take over, acting as a backup unit. The 1st Brigade would be the control unit, dispatching military units, coordinating civilian activities — all of the items listed in the previous paragraph.

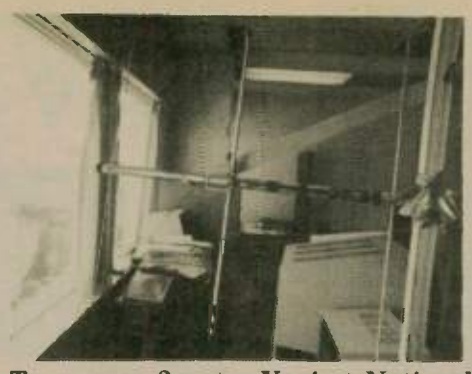
Simulated Emergency Test (SET) operation at the Sacramento National Guard Armory. Note indoor VHF Yagi antenna in foreground.

Message Center, 1st Brigade, California State Military Reserve participating in the Simulated Emergency Test, 19 October 1982.

Joe Kiplinger, W6OHP, at Amateur Radio operating position on first floor, Sacramento City Hall.

We saved the best part till last. Captain Chuck Baker, Public Affairs Officer, described the 1st Brigade's scenario *and it was different from that of the OES and the radio amateurs!* The 1st Brigade scenario centered around a presumed nuclear accident at Rancho Seco nuclear power plant. The amazing thing about operating one SET with two scenarios was that there was no conflict. Both called for deployment of field forces and the gathering of information.

If your group did something different, learned some lessons or found out how to do something better, send the story and pictures to **Worldradio**. □



Temporary 2-meter Yagi at National Weather Service's 19th floor office.

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If you received this publication and are not a subscriber of WORLDRADIO, it was no accident. Please consider it an invitation to join. We can be very friendly

DX Forum

John Minke, N6JM

The DX Forum was moderated by Bob Thompson, K6SSJ. Bob is the Pacific Division representative to the DX Advisory Committee and is also a member of the Northern California DX Club (NCDXC).

Several of the DXers present in the room were concerned with the recent DXpedition to St. Peter and St. Paul's Rocks. It had taken the team several days to get there, where they signed with the call PY0SP. It was the practice of the operators on 20 meters to sit on 14.195 MHz and instruct the callers to call them from 14.200 to 14.300 MHz. As a result, several phone patches and service nets were wiped out. This had created a very bad image for DX in general. A few DXers went so far as to suggest the Northern California DX Foundation withhold the financial aid promised to the DXpedition. This, of course, should not be done.

Merle Parten, K6DC (Dolly's Cousin) spoke about the Northern California DX Foundation (NCDXF), of which he is a member. The NCDXF was started several years ago and is not to be confused with the Northern California DX Club. When the NCDXF contributes to a DXpedition, they request that the operation support both CW and SSB modes and not be an all phone or all CW DXpedition. They also request that the DXpeditions don't favor one area (such as working only Northern California).

Merle suggested that DXpeditions take along two or more of the same type of rig so one could be cannibalized for parts in the event of a failure. Also, bring along antennas that are simple to assemble (not as in the case of the TH6DXX, which was sent on the Bouvet Island DXpedition; much time was lost trying to put this together in the adverse conditions on the island).

All contributions to the foundation are tax deductible and may be in the form of funds or equipment. The average donation is about $12 per year.

Eric Edburg, W6DU was introduced as president of the NCDXC. Eric had a few words for the Novice and the new DXer. Spend time listening to what is going on. Listen! This is good advice to all DXers.

The forum approached its conclusion when Bob K6SSJ related how stations that have worked a DXpedition station have then moved on to his operating frequency to request QSL information. The unfortunate thing about this is that all it does is cause unnecessary interference. If the DXer would just listen, he would see that the DXpedition station would periodically announce the QSL information. What's the hurry anyhow? They are

Pacific Division Convention

The Secrets of QRP Operation

John Minke, N6JM

An interesting session at the convention was presented by Jim Holmes, W6RCP. Jim, who is an active member of the QRP Amateur Radio Club International, kept the attention of the group on his presentation, "The Secrets of QRP Operation." It was refreshing to have a subject on operation other than the brute force QSOs so common on the bands today.

Jim W6RCP was an amateur for 20 years prior to becoming involved with QRP, where he saw an advertisement for a QRP station for sale. Jim considers QRP operation as the best part of Amateur Radio. It is the fastest growing segment in Amateur Radio today, and manufacturers of radio equipment have recognized this as there are several commercial QRP rigs on the market. This includes such rigs as the Ten-Tec Argosy (see page 38, **QST**, October 1982), Kenwood TS130V, Dentron MLX-20, and another Ten-Tec transceiver — the Argonaut. Rumor has it that Vibroplex is interested. Heathkit also has a QRP rig in kit form — the HW-8.

QRP rigs are great for taking on backpacking trips, and there is a section in the annual ARRL Field Day for QRP stations. There are several contests for QRP throughout the year, and **CQ Magazine** has led the field in these.

If you have doubts about working DX QRP style, take a look at this one. Back east, W2JOC was able to work WAC (Worked All six Continents) in 11 minutes using a QRP rig. He was running 2 watts with a dipole antenna!

Techniques of QRP operation require patience and persistence. If you don't like being left out in a pileup, then QRP is not for you. As Lew McCoy, formerly of the ARRL Headquarters technical staff, once put it. "Power of positive thinking is needed by QRPers." This also involves "keeping your cool," as 99.9 percent of all QRM to QRP contacts is unintentional. QRP stations just move away from it and carry on.

Many QRP clubs are being established throughout the world, including Australia, Austria, Belgium and the United Kingdom. The QRP Amateur Radio Club International was founded by Harry Blomquist, K6JSS in Saratoga, California in 1961. QRP ARCI defines QRP as 5 watts or less output on CW and 10 watts or less PEP output on SSB. Although QRPers push low power, they are not out to get a power reduction in Amateur Radio by the government. The club at one time had new members sign a pledge that they would never run more than 50 watts, but this is no longer required.

QRP Amateur Radio Club International sponsors two QRP contests annually, April and October. They also have an awards program that is available to all radio amateurs. To join this fine organization, write to Edwin R. Lappi, WD4LOO, 203 Lynn Drive, Carrboro, NC 27510. A lifetime membership is available for $6 for amateurs in the United States and Canada and $7 for all others. This, of course, is in U.S. funds. Included is a one-year subscription to QRP Quarterly. Subscription renewals are $5 (for W/VE) and $6 (all others) for one year. Make your checks payable to: QRP Amateur Radio Club International, Inc. Tell them Jim Holmes, W6RCP sent you.

The frequencies that QRPers favor, plus or minus due to QRM, include 3560, 3710, 3985, 7040, 7110, 7285, 14060, 14285, 21060, 21110, 21385, 28060, 28110, 28885 — all in kilohertz, for CW, Novice and SSB. The magic numbers to remember are 60, 10 and 85.

This reporter enjoyed the presentation very much and is impressed with this type of operation. Operating with QRP requires skill, and it is disappointing to see QRPers regarded as inexperienced, still "wet-behind-the-ears" operators, as one DX editor of a well-known Amateur Radio publication classifies them. A QRPer who has attained DXCC has really accomplished something — far more than the amateur running his station wide open with a kilowatt amplifier. Refer to the QRP column in **Worldradio** for additional reading on this subject. □

DX Forum

(*continued from page 3*)

not going to answer QSL requests until after the DXpedition has concluded and the operators have returned with the logs. It was also suggested that the DX station send the worked station's call at the end of the contact to confirm to him that he did indeed work the DX station. With many calls that sound alike today and so many transmitting at once and out of order, one could sure get confused and think he was worked when he wasn't. □

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Worldradio

ARRL Leaders at the ARRL Forum, Pacific Division Convention, Santa Cruz, CA, 10 October, 1982. Left to right: Dave Sumner, K1ZZ, ARRL General Manager; Chris D. Imlay, N3AKD, ARRL Legal Counsel; Vic Clark, W4KFC, ARRL President; Bill J. Stevens, W6ZM, ARRL Pacific Division Director; and Jettie B. Hill, W6RFF, ARRL Pacific Division Vice Director.

ARRL Forum

Norm Brooks, K6FO

If you were looking for arguments and shouting matches, you would be wrong in looking for them at the ARRL Forum at the Pacific Division Convention, Santa Cruz, California, 10 October 1982. A few years ago, these forums usually provided some heckling from the membership to the elected officials. All of this is in the past. This year's forum was sweetness and light, with the members generally agreeing that its present ARRL leadership is doing a good job.

The meeting was held in the Santa Cruz County Board of Supervisors hearing room, which lent an impressive atmosphere. The five ARRL leaders sat in the five supervisors' chairs, in a huge semicircle, looking as authoritative as a court. Only the black robes were missing. The room was packed with an overflow crowd.

The greatest discussion centered on tests, the method of giving them, and the controversial answer books on the market. ARRL Legal Counsel — Chris Imlay, N3AKD — believes the answer books will be offset by the new method of compiling questions. There will be a list of 500 to 600 questions and answers which will be *published* by the FCC. Volunteer examiners would administer the tests using only a small number of the available questions each time. An applicant would probably have to be qualified technically

Seen at the ARRL Pacific Division Convention, Santa Cruz, California on 8 October was Steve Mock, N6DTD — Extra Class amateur, age 14. He became a Novice (KA6KWX) at age 12 and is a high school freshman in Pomona, California. He flew to the convention by commercial airline, by himself. He became interested in Amateur Radio from a "friend up the street" — Tom Obert, N6DZJ. Steve likes DX and, of course, CW.

to be able to memorize so many questions and answers.

"Bip" Bachman, W6BIP suggested volunteer examiners be limited to teachers — members of academia — who give tests professionally. Vic Clark, W4KFC responded that this was an interesting proposal, but any system developed can be abused by someone. Bill Stevens, W6ZM suggested that if anyone has a plan for giving tests he/she believes will work, send it directly to Dave Sumner, K1ZZ or Vic Clark, W4KFC at ARRL Headquarters.

The "no-code" license proposal came in for a lot of criticism. The amateur body, almost unanimously, was against it. Vic Clark quoted an amateur friend, who was once a CB'er, saying, "Anyone who doesn't have enough discipline to buckle down and learn the code at 5 wpm wouldn't have enough self-discipline to be a ham." There was comparision between the numbers of items in the International Morse Code and the number of "codes" computer buffs needed to memorize. It was stated that in the digital field, even "computer jackasses" learn thousands of codes.

Doug Macheel, K6HLE said code still has its place in communications today. There is a great improvement in signal-to-noise ratio with the narrower responses that CW will permit. However, he hates to see emphasis on RF (radio frequency) lost in the technical part of Amateur Radio. He would like to see the League put heavy emphasis on RF.

Frank Clement, W6KPC pointed out that a doctor, lawyer, etc. must pass a tough exam the first time. Once licensed, they may stay at the top. Bill Eitel, W6UF added that he is an electrical engineer licensed by the State of California. He said "I couldn't pass today's test for EE's, but I have the reference books at hand to keep up with technological change. Very few people in this room could pass the test tomorrow for the license they now hold. If passing the test means having a good memory, then I'm sorry. I have a poor memory." Frank Clement asked the League to support the position that the top amateur class be given for 40 years service as an amateur.

Bob Thompson, K6SSJ suggested that the League provide a printed brochure, written in layman's terms, which an amateur could use as a handout to neighbors.

The 1983 Pacific Division Convention will be at the MGM Grand Hotel in Reno, Nevada, hosted by the Wide Area Data Group. They showed a lot of class, publicity-wise, by distributing a slick magazine announcement of this fact one year ahead of time. □

"Junk VHF Antenna Contest" at the ARRL Pacific Division Convention, Santa Cruz, California, 9 October. The program said, "*We* provide the junk, *you* build the antenna." Here, John Hultquist, K6GSS of Sunnyvale learns that his antenna built in five minutes measured "zero."

***Worldradio* staff member Norm Brooks, K6FO (right) receives appointment certificate as Public Relations Advisory Committee member from Division Director Bill Stevens, W6ZM.**

One feature of the ARRL Pacific Division Convention was a Skydiver "drop-in," working 2 meters on the way down. Left to right are: Dave Borcher, WB6RHD, parachutist; Dennis O'Brien, WB6CBJ, pilot; and Pat Barthelow, WB6ZSB, parachutist.

Contest Forum

John Minke, N6JM

No doubt there isn't a single-convention that doesn't have a contest forum, and with one of the top contest clubs in the division, why wouldn't there be one?

The forum was led by Tom Schiller, N6BT of the Northern California Contest Club (NCCC), who introduced Kip Edwards, W6SZN, the club's president. Kip discussed the history of the NCCC and their latest achievements. In a recent CQ World Wide contest, the club had the top score in the world, with a score of 160,376,446 points.

As this was a forum, the Contest Advisory Committee was interested in the feelings of the group toward the classification of multi-multi contest operating. As there were not that many in attendance, this was rather a strange request, unless most contest operators operate under this classification.

With time running short, Tom discussed the art of contesting. As he had much to say, it was hard to keep up with him. He did have handout sheets that pretty well covered his talk, and if anyone is interested in obtaining a copy, I suggest you write to Tom N6BT for details. Include an SASE.

One interesting item that Tom commented on was suggesting CW operators to lower the pitch, as the human ear has a better response at lower frequencies (i.e., audio frequencies). Tom suggested copying CW at 400 Hz and lower.

Although many experienced contesters were in the room, Tom's talk was also directed at the beginning contester. How does one get started? Just turn on the rig and get in the mood. Set a goal that is reasonable for you (such as the number of contacts, etc.). Set your clocks to UTC, set your mind, grab the mike or key, and go to town. After the contest is over, review what you have done so you can improve on it in the next contest. And don't forget to turn your contest logs in on time.

The popular contests on the band include the Novice Roundup, Field Day, 10-Meter Contest, 10-10 Contest, 160-Meter Contest (there are two of them), State QSO parties, All Asia, WPX, CQ World Wide, CD, IARU, WAE, and many more, not to forget the Sweepstakes.

Make your station failsafe. Establish an operating routine, but be able to be flexible. Understand what is happening. Listen! When sending your exchange, send it once only and be courteous. Be sure to keep a dupe sheet to avoid duplicate contacts.

When calling CQ, put something into it. A knowledgeable CQ that is friendly will have better chances of a call than the CQ that sounds annoyed and sloppy. Know how to coax the QSOs out of the woodwork.

Pile-ups! This is an indication that something worthwhile is close by. Listen to the operating habits of both the station being chased and the caller. As Tom puts it, "Do not let your ego keep you in a pile-up." Move off and go elsewhere, but make a note of the frequency and come back later. And when in the pile-up calling, wait for the first null point and make your call. If on SSB, keep your call a monotone with good audio. CW operators should change the pitch, zero the last station they worked and vary their speed. □

A profile

Percy Anderson, VK3PA

Ken and Bett McLachlan, VK3AH

At one time or another, you have probably heard the buildup of QRM around 14.265 MHz on Tuesdays and Fridays at 0600 UTC. Well, wonder no more my friends, as you have heard the International Pacific DX Net. The net has a membership in excess of 1,650 amateurs, drawn from all continents, and has been operational for some 12 years.

The anchorman of this net is Percy Anderson, VK3PA. He has been controller for over a decade and in that time has given many DXers new contacts, whether they be from expeditions or just rare countries joining the net to avoid heavy QRM.

Percy is not really a DX fiend himself and has no idea of how many countries he has worked or has confirmed, but as he says himself, he does like to see others get a rare country for a new one. This is typical of Percy's unselfish nature, which has been his lifestyle through the years, and throughout the world he is respected for the gentleman that he is.

He was first licensed in 1928 and, in the early days of Amateur Radio — prior to World War II — he used to play records on the broadcast band (which was permitted then), and from all reports he built up quite a listening audience with his Sunday morning "DJ Specials."

World War II, of course, halted amateur activity but saw Percy serving his country in the communications field. Upon cessation of hostilities, Percy rejoined the Australian Broadcasting Commission where he became a Senior Technical Officer and was located at a large country broadcast station where he remained until his retirement.

With his XYL, Linda, he resides on a five-acre property situated on the Bellarine Peninsula, which is about 60 miles from Melbourne and close to the provincial city of Geelong. Percy — whose enthusiasm, energy and activity would have a man half his age puffing — has an extensive garden comprised of vegetables, flowers, fruit and many native trees and shrubs, all located within a pleasant lawn setting. All this takes considerable time to maintain, but the only help Percy employs is a "sit on, drive yourself" mower, which we believe may be more *fun* than *work*.

Percy has as many first prizes for his homegrown produce — which he has entered at country shows — as he has DX countries, and he is eagerly sought after for advice on the air for his gardening tips and advice on related problems.

The charming couple have toured Eastern Australia extensively, usually during the winter months when the garden is "self-caring" and the climate is better to the north. It is quite common to hear remarks such as, "When will you and Linda be calling in again, Percy," as they have "eyeballed" many VKs in their many meanderings — all friends they have initially met through Percy's hobby.

Percy, now some three score years and 10 plus a few and looking and acting younger every day, feels he would like to step aside and leave the net to younger blood if there are any volunteers and has set a retirement date of no later than the end of June this year. This also applies to another net which he named the "ANZA NET" (A=Australia, NZ=New Zealand, A=Africa). This daily net has operated for over 10 years, and Percy has been the main controller for that period. This net is on 21.204 MHz at 0500 UTC daily, envisaged initially as a meeting place and "chatter" net between these three countries. However, over the years, this has developed into a superior DX net with the controller having a check-in some days of in excess of 140 participants with quite a few rare countries appearing infrequently.

Present equipment at the VK3PA station comprises a Yaesu 101ZD, backup transceiver of an FT-570 plus a FL-2100 linear. A fold-over tower and TH6 HyGain beam complement the installation, which is quite a marked difference from the earlier days as experimentation and "homebrewing" were very high priorities with Percy but he just has not got the time now and he is wondering how he ever found the time to go to work, prior to his retirement.

Percy Anderson, VK3PA — anchorman of the International Pacific DX Net — sits at his Bellarine Peninsula station.

Percy Anderson — gentleman, technician, horticulturist, amateur and net controller — we, your fellow amateurs, salute you, and all who know you or have crossed your path will join in thanking you for your participation and help to our hobby for over half a century. All your friends look forward to many relaxed and unhurried QSOs in the future when you will not have the hassle of running a net.

Percy and Linda, health, happiness and many good years doing what is your pleasure. □

You can help nets by listening

Walter Kirkwood, K4CLG

Amateur Radio has an infinite variety of nets. I suppose where two or more amateurs are gathered, they will start a net. In fact, there are so many nets that the average amateur may have heard of only a small fraction of those that are active.

Here is a net some of you may not be familiar with. There are really two nets — one called The Halo Net and the other The Inter-America Net. Since they both use the same format and the same frequency (but not at the same time), I am going to treat them as one.

The purpose of these nets is to run international third-party traffic, where permitted, between this country and primarily Central and South America, and the Caribbean area. No stateside to stateside traffic is handled.

The nets operate daily on 21.390 MHz. The Halo starts first at 1:00 p.m. local time (usually earlier if propagation permits) and runs to 2:00 p.m. As the name implies, this net is used primarily by missionaries. There is a period from 2:00 to 3:00 p.m. caleed the Post Halo Net. The Inter-America Net starts at 3:00 p.m. and runs to 5:00 p.m.

Both nets have individual net control operators. There are no rosters or roll calls. You participate by "listening." You do not transmit unless you have traffic or you hear someone calling with traffic for your area. If you have traffic to pass, wait until the net control operator stands by for check-ins, which he will do periodically. Unless you have priority traffic, wait until the priority traffic has been handled before checking in. Priority traffic includes maritime mobiles, medical, and emergency-powered stations.

Most stations running traffic desire phone patches, so although not mandatory, a patch is the recommended equipment. We hold our ham tickets because we perform a service. When you complete a patch allowing someone in a remote area to talk with their family at home or perhaps in the hospital, you feel as if you have fulfilled part of the payment for that ticket.

— *Shelby County ARES, AL* □

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

Pearl Harbor Survivor net

This net — composed of individuals who were in the Armed Forces of the United States and serving on the island of Oahu, or within three miles of Pearl Harbor during the period 0755-0955 on 7 December 1941 — currently operates on the following schedule:

Tuesdays, Thursdays and Saturdays on 14.283 MHz at 1145 Eastern Time, and at 1515 Eastern time on 21.363 MHz. A regional net on 40 meters meets at 0730 Eastern time on 7.280 MHz. Net control on these schedules is usually Earl Selover, W4LPF; Walt Dettinger, W8NXN; John O'Shea, W8JZH; or Gilbert Meyer Jr., WA5UNZ. **NOTE:** Times remain the same whether daylight or standard is in use. □

New signal from Honolulu college

Katashi Nose, KH6IJ
Submitted by Rufus McCracken

The KH6O/B beacon went on the air 27 September, 2:00 p.m., from its site at the Honolulu (Hawaii) Community College. It is transmitting every two minutes after the hour, and every 10 minutes after that.

Its power is 100 watts for nine seconds, then steps down to 10 watts for nine seconds, then 1 watt for nine seconds, and finally to 0.1 watt for nine seconds. This cycle is repeated every 10 minutes.

KH6O is the call sign of Robert Jones, electronics instructor at Honolulu Community College whose microwave course students built, tested and installed the antenna used on the beacon.

The purpose of the beacon is to provide low power fully automated radio signals which the listener can use to determine the quality of the propagation conditions of the ionosphere.

KH6O/B is the first beacon to join K6OPO at Stanford University. 4U1UN/B United Nations in New York City began transmitting on 2 October. Dr. Max DeHenseler is the director of the station.

Other beacons eventually will be joining them, resulting in a network covering the world. The projected stations are JA2IGY in Japan, 4X6TU in Israel, OH2B in Finland, CT3B in Madeira Islands, and ZS6TN in South Africa.

Cameron Pierce, K6RU is the chief engineer. Timer and keying unit were put together by Jack Curtis, K6KU. Others involved are Jack Troster, W6ISQ and Oswald Villard Jr., W6QYT, professor of electrical engineering at Stanford University.

The Northern California DX Foundation sponsored the project. KH6O/B has special permission from the FCC for its operation.

— *Honolulu Star-Bulletin, HI*

Texas disaster tactical frequencies

Daytime — 7245 kHz; After dark — 3915 kHz

DPS and other disaster agencies will be monitoring these frequencies, as well as their own channels, and tactical communications can be carried on in this manner. These are frequencies that will be monitored statewise.

3945 kHz nets

West Gulf Emergency Net — *CW:* 7:30 p.m., Sunday; *SSB:* 8:00 a.m., Sunday. **Central Gulf Emergency Net** — *SSB:* 8:00-9:30 p.m., daily. **Southwest Traffic Net** — *SSB:* 9:30-10:30 p.m., daily. □

High School/College Net

McKinley High School (Hawaii) Radio Club Station, KH6NF is back on the air again with the High School/College Net. It meets (± QRM) Mondays, Wednesdays and Fridays at 2000Z-2130Z (U.S. and Canada); 0030Z-0130Z (Japan, Australia, New Zealand and South Pacific); and 28.520 (primary frequency). Alternate frequencies are 21.420 and 14.320.

The school day at McKinley is from 1730Z to 0130Z. You may find our station in operation within those hours, as we hope to have many operators available as the school year progresses.

The High School/College Net is our way of getting young amateurs together, and everyone can help us in our efforts. When you come into contact with a young amateur, club station, high school, college, teacher or anyone you think would be interested in our operation, please inform them of our efforts.

Our net will be round-table operation when possible.

Our research has revealed that there are over 1,000 club stations within the United States. These include elementary, junior and senior high schools, colleges and universities. Canada has about 400, and should we go international and include Japan, New Zealand, Australia and the South Pacific Islands, another 500 club stations could be added for possible contact. This number does not include the many young amateurs and teachers who operate only from home. Thus, you can see why we are asking everyone for their help in getting the schools and young amateurs together. □

Listen to WARNS

Keep informed of Amateur Radio news and events in the ARRL Northwest Division. Listen every Monday at 7:00 p.m. (Pacific local time) on 3.940 MHz to the Washington Amateur Radio News Service (WARNS) with Westlink Radio Reports via W7UU.

WARNS editor and net control station is ARRL Northwest Division Public Information Assistant John Brown, W7CKZ.

Help spread the word of Amateur Radio. Send news to W7CKZ, 725-88th Ave. SW, Olympia, WA 98502. □

Masonic and Shrine Amateur Radio nets

Alfred Bein, K2BWQ

This is a story of dedication and fellowship.

Over the years, many ham members of the Masonic Order and the Shrine have formed Amateur Radio clubs which expanded into Amateur Radio nets. The important results were the establishment of Amateur Radio stations in some of the 22 hospitals for crippled and burned children.

These children, 18 years old or younger, come from a wide area in the Western Hemisphere: South America, Central America, the Caribbean Islands, Puerto Rico and, of course, mainland USA. Most of them are here alone, separated from their loved ones for a considerable length of time. To help ease the pain and help them overcome loneliness and depression, some Shriners have installed Amateur Radio stations in some of these hospitals and regularly schedule nets in order to complete phone patches for these "kids," or to give them an opportunity to speak to empathic amateurs everywhere.

The LuLu Temple Amateur Radio Unit operates a station in the main hall of the Philadelphia Hospital for Crippled Children. Every Thursday evening the children are brought in — some in their beds, some in wheelchairs, and some literally carried. Two very dedicated Shriners, Mary Copeland, WA3QNV and Jules Helzner, W2ATN — give of their time and energy to activate the station so that the "kids" may talk to members of the net. Some children speak only Spanish and Hank Gorney Sr., W8PLV/VY5 in Caracas, Venezuela is ever present to talk to them. They all know Lee Kariger, WA6VYQ of Sequim, Washington, who is always present with a cheerful word. In fact, 15-20 amateurs (Shriners and some non-Shriners) wait their turn to offer some joy to the kids. When possible, phone patches are completed. Thursday night is great for many of those confined to the Philadelphia Hospital for Crippled Children, thanks to Marty and Jules and the LuLu Temple Radio Unit. You can tune in on 14328±kHz at 2300Z.

The Shreveport Shriners Hospital Amateur Radio room is operated by *(continued on page 9)*

Ten years with MARCO

This is the fourth in a series of five articles on the history of MARCO (Medical Amateur Radio Council, Ltd.), as written by Joseph J. Boris, honorary member of the organization.

Year 1973

Donald Needham, DVM, WA6JMN was president. The seventh annual meeting was held at the Plaza Hotel in New York City, 28 June. At this meeting, as reported in the MARCO Bulletin (Vol. 7 No. 10) F. K. Gadegbeku, M.D., EL2CI/4 presented a paper entitled "An Epidemic of Lassa Fever in Zoror" Liberia, West Africa. He was at that time Chief of Medicine, John F. Kennedy Medical Center, Monrovia, West Africa.

During the course of the dinner I was awarded a plaque, which read:

Presidential Award

In appreciation for his many years of service and for his exceptional organizational ability, sincere devotion and untiring efforts
Joseph J. Boris
Is hereby presented the Highest Award of MARCO

Walter Shriner, M.D.
President, 1973

Year 1974

Walter Shriner, M.D. FICS, W9CBG was president. The eighth annual meeting was held at the Executive House, Chicago, Illinois on 22 June. At this meeting Doctor Shriner reported that John A. Schindler, M.D., FICS, W4RFA (now deceased) and he were actively engaged in contacting pharmaceutical and hospital supply companies to the end that they might donate medicines, medical supplies and operating room equipment to physicians, dentists and hospitals in South America, particularly in Honduras, where MARCO members Fr. Joseph Casmir Walsh, HR5FPB — a member of IMRA; Frank McNiel, M.D., HR1SDA; William Harms, M.D., HR0DEX; Philip E. Pick, HR2FP; Ruth A. Paz, HR2RP; and Sister M. Ethelbert, WB8GWB were in residence.

(Dr. Shriner and his wife are now living in a retirement community — Hot Springs Village, Arkansas. He gets on the air as often as possible.)

Year 1975

J. Chas. Jordan, M.D., W4IEP was president. The ninth annual meeting was held at the Sheraton-Reston Inn in Reston, Virginia on 11 September, in conjunction with the annual meeting of the members of the American Radio Relay League. The Rev. Daniel Linehan, W1EWK, General Secretary of the International Mission Radio Association was our guest. He presented a paper: "A Quick Trip to the Inca Civilization — Peru." It was published in the *MARCO Journal* at a later date.

A panel on communications was then given by Doctors Ore, Shoupe, Nolan, Jordan and Thain. There was extensive discussion of the interference on frequencies and future use of 80 meters as a net frequency. Also, the possibility of "on-the-air" forums on medical problems was discussed. The institution of regional nets would be highly desirable. The necessity for taking one step at a time in developing communications networks was stressed.

Theodore Cohen, Ph.D., W4LMF (now N4XX) — our guest speaker — presented a paper entitled "The Problem of RFI."

The Guatemala earthquake was covered by Walt Twain, WB4KKB, with assists from K5CY, W4RFA, K2JVA, WA4EFX, K4IEP, WB2YBA, WA8TXG and other MARCO members. His report was published in the Vol. X No. 2 *MARCO Journal*.

Year 1976

Donald E. Ore, D.D.S., KJ9B was president. The 10th annual meeting was held in Dallas, Texas on 24 June. I did not attend the meeting, so arrangements were made by a local committee of MARCO members. I submitted my letter of resignation to take effect following the publication of the November-December issue of the MARCO *Journal*. Doctor Walter Shriner, W9CBG was appointed editor of the *Journal*.

Christine E. Haycock, M.D., WB2YBA assumed the presidency of MARCO in 1981. She resigned as president, handing in her resignation at the meeting of the Board of Directors during the 16th annual meeting held at the Greentree-Marriott Hotel, Pittsburgh, Pennsylvania on 22 May 1982, citing responsibilities of her practice and many activities in the field of medicine, as well as her duties as president of the 5,000-member American Medical Women's Association. Mervin Grossman, M.D., K5CY was elected president for the term 1982-84.

William L. Sprague, M.D., WA6CRN is secretary. Information and membership applications may be obtained by writing to him at 433 North 4th Street, Montebello, CA 90640. The monthly *MARCO Newsletter*, a publication of MARCO is mailed from Acme, Pennsylvania. Edward R. Briner, DMD, WA3TVG is the editor. Address is P.O. Box 73s, Acme, PA 15610.

(Conclusion next month) □

Gayle Hamilton, N5AOF. If you tune to 28650±kHz on Sundays at 2100Z you will often hear Gayle putting through a phone patch for "his kids." Talk about dedication. This man gives unflinchingly of his time and his time is truly valuable; Gale is a circuit judge in Louisiana.

In addition to the above, the Houston Shriners Hospital and the Northwest Shrine Amateur Radio Club (NWSARC) operate stations. (The NWSARC has stations in the Tacoma and the Portland hospitals.)

The New Jersey Masonic Amateur Radio Club (NJMARC) was formed in 1980 with the blessings of the Grand Master of New Jersey Masons, Carl O. Brodin, for the express purpose of supplying a means of communication and recreation for the "guests" (retired Masons) in the Burlington Home in Burlington, New Jersey.

The NJMARC operate four frequencies, Mondays, Wednesdays and Fridays on 14300(±) at 2200Z. On Monday, the NCS is Joe Neighbors, KA4KOA of Memphis, Tennessee. Wednesday and Friday NCS is Al Bein, K2BWQ of Clifton, New Jersey. Tuesday and Thursday on 3974(±) at 2200Z, NCS is John Novack, K2KUC of Clifton, New Jersey.

Monday on 147.415/146.415 MHz at 2300Z, NCS is Harold Ellerman, WB2PXO of Bradley Beach, New Jersey, or Steve Ackerman, KA2CZN of Staten Island, New York; and Saturday on 7274 kHz at 1500Z, NCS presently is Hal Robinson, WB2GJE of West Orange, New Jersey.

Many old friends meet daily on various Masonic and Shrine nets. Some are phone patched to former buddies. The nets are not limited to Shriners and Masons, and if interested in checking in, write for a scheduled time and frequency. You're always welcome. (Write to Alfred Bein, K2BWQ, 26 Lenox Ave., Clifton, NJ 07012.) □

Blind amateurs knew him well

Ken Blaney, W6PIV

The blind amateurs of the world lost a good friend when Carle Conway Jr., WA6TGC of Covina, California became a Silent Key this summer. He was widely known by word-of-mouth from one blind ham to another, shunning other publicity.

Carle made and shipped, without charge, tuning aids that permitted sightless people to tune up rigs, read SWR bridgemeters or VOMs about as quickly and accurately as sighted people could.

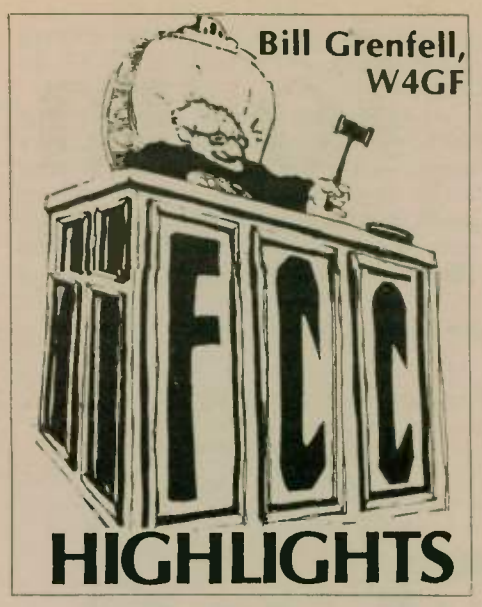
While volunteering instruction in Amateur Radio code and theory to handicapped persons in a large Southern California rehabilitation hospital some 20 years ago, Carle saw an article in the April 1963 **QST** by W6PIV about a transistor audio unit that permitted accurate meter reading by sound. He started making the units for his friends who needed them. They told others on the air, and Carle received increasing numbers of requests for the unit.

As the years went by, he supplied tuning aids to blind amateurs all over the country and to many foreign lands. Eventually, he was buying parts in hundred lots and, after drilling thousands of holes in mini-boxes, he had them made prepunched. After 18 years, he had given away over 1,000 units. One can imagine the thousands of hours of labor and the thousands of dollars for parts involved.

Years ago, Carle sent a unit to a French amateur who had lost his sight and who found he could tune his rig as before. But the amateur was startled to learn that the French Communications Agency would not issue a new license to a blind person. He protested to the authorities and arranged a demonstration of himself using the aid to tune his rig. He was so convincing that the French government thereafter issued ham licenses to blind applicants who passed the tests, provided they each had one of these units. The French amateurs called the unit a "Booglatron," from a slang term meaning squint eyes, plus a reference to electrons.

On the 10th anniversary gathering of a European club for blind radio amateurs, Carle was invited to Paris as the honored guest and named the father of the "Booglatron."

As an amateur who left a legacy of help to the less fortunate, it seems that Carle's example should encourage others to carry on in similar ways. With today's ham skills in modern techniques, much better aids could be developed to help those who labor to overcome handicaps. □



A Bash bunch bombed out on FCC's test at Baltimore! The following is a quote from the Dayton Amateur Radio Association's *RF Carrier* for September:

"As you probably know, Dick Bash has published a series of books which list all the test questions and answers to the various amateur exams. He recently started a series of seminars in cities around the country. These are supposedly cram sessions where theory was pumped into the attendees so they could understand all about electronics and handle anything the FCC threw at them. Actually, they were drilled on the answers to 50 test questions. Passing was guaranteed and almost everyone did.

"Last month at the completion of the seminar, Dick marched his latest group of instant experts into the Baltimore FCC office for the test. They were confident they would go home with an upgrade. Well, that nasty FCC changed the test! The changes were subtle. No major differences, just slightly different questions and math/formula values. Well, 89 percent of Bash's students flunked; however, 70 percent of those who took the test without the benefit of the Bash seminar passed. We understand that Dick is really upset!

"As an example of the technical competence of the people that Dick has been bringing into the amateur ranks, only one of his group knew which direction a Yagi antenna provides the strongest signal. Thanks W5YI Report" End quote.

FCC's D.C. Headquarters reports that the new batch of questions has been used at a number of other locations with similar results. Continued use is to be expected.

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FCC's conduct of amateur examinations will continue without any drastic changes in the times and places at which they will be available, until a satisfactory volunteer system[1] is ready. At present, no changes are in the works except where office locations may be moved.

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The use of additional digital codes by amateurs is now authorized by FCC. Previously, only use of Baudot and ASCII codes were permitted via amateur stations. Adopted in September, the rule amendments are effective as of 28 October 1982. Generally, speed, bandwidth, frequency bands, types of emissions and other limitations are relaxed. For details, see FCC's Report and Order, PR Docket No. 81-699, 14 September 1982. Copies may be obtained from FCC at 1919 M St. NW, Washington, D.C. 20554.

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The matter of the United States' ratification of the 1979 World Administrative Radio Conference (WARC '79) was out of committee and before the full Senate late in September. If the Senate approves, it should remove any hesitation on the part of the FCC to authorize early use of the 30-meter band by U.S. amateurs.

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Comments on FCC's 1500 watt maximum amateur station peak envelope power output proposed rule amendment is due 1 February 1983. Reply comments are due 1 March. Comments should refer to Docket 82-624.

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A petition to implement the 902-928 MHz amateur allocation at an early date has been denied by FCC on the basis that it was already under consideration in Docket 80-739. William A. Tynan, W3XO was the petitioner.

•

A petition to permit assignment of requested specific call signs to amateur General and higher class licensees was denied by FCC, on the basis that its budget limits would not cover the expense. Peter D. Wechter, KI1F was the petitioner.

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The operator and station licenses of Henry C. Armstrong III, WA6CGI have been ordered suspended and revoked for his interfering with a 144 MHz repeater. Early this year, I reported in 'Highlights' that Armstrong and Robert Frizzell, W6UCB were set for a hearing for transmitting obscenities and malicious interference. However, the hearing judge found that the evidence did not warrant the proposed suspension and revocation of Frizzell's licenses.

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FCC's suspension and revocation of the operator and station licenses of David A. Dayyan, WA6SUD was effective 12 February and 20 May (1982) respectively. He waived hearing and submitted a statement. The judge found that he willfully violated Rule 97.84 (failure to identify) and willfully and repeatedly violated Rule 97.119 (transmission of obscenity, indecency or profanity).

•

Robert G. Harkins, WD6GRV was issued an initial decision by an FCC judge, revoking his station license, suspending his operator license and denying his application for an Advanced Class operator license. Harkins filed an application and took an examination for Alfred E. Bloch to assist Bloch to obtain a Technician Class license, in violation of amateur rule section 97.129. At the time this was written, the judge's decision had not become final.

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Transmission of false signals and communications containing obscene, indecent or profane words was the basis for suspending and revoking the amateur operator and station licenses of James K. Rafuse Jr., KA1AQ. FCC established that, in addition to certain words that "are patently offensive to listeners," his transmissions contained "reference to sexual and excretory acts and organs." The rule sections he violated are 97.119 and 97.121.

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Transmission of communications containing obscene, indecent or profane words, language or meaning in willful violation of Rule 97.119 resulted in the suspension and revocation of the amateur operator and station licenses of Christopher D. Tonjes, N2APT.

"The transmissions . . . contained words referring to sexual and excretory activities and organs. The fact that the licensee's statements occurred in a conversation or argument with another amateur, KA1OQ . . . is not sufficient to mitigate license revocation in this matter. The licensee's transmission of indecent words, language or meaning establish that he is not qualified to remain a Commission licensee. Therefore, license revocation is warranted."

[1]*See last month's 'Highlights' report on the amendment of the Communications Act.* □

Petition submitted for 10M band plan

TO: Federal Communications Commission

SUBJ: Petition for Rulemaking Proposal, 29 MHz FM Repeater Allocation Expansion

The advent of 10-meter FM repeater operation in the 29 MHz amateur band has fostered tremendous support from the Amateur Radio community. All one has to do is listen to the present FM repeaters on the 29 MHz band and quickly conclude that the activity is greater than in any years past.

The recent surge of interest in FM communications on 29 MHz is due largely to the availability of FM equipment by commercial manufacturers. Only recently have they added FM to their circuit designs, and one particular manufacturer has even gone so far as to offer a 10-meter FM monoband transceiver with repeater offsets for the entire 10-meter band. Not to be forgotten are the citizens band radios from yesteryear which, for a few dollars, have been converted to 29 MHz FM and have contributed significantly to the growth seen there.

If one were to analyze activity band by band, he would find the same trend was set on 160 meters a few years ago when a single manufacturer at that time included 160-meter capability as a standard feature. After competition realized the sales incentive, they too added 160 meters to their equipment's band selectors. 160-meter activity seems to have spurted up almost overnight, together with the recent deregulation of that band.

The same situation which took place on 160 meters a few years ago is now apparent on the 29 MHz FM segment of the 10-meter band. Unlike 160 meters, however, FM requires greater bandwidth, and at present there are only four channelized frequencies available for repeater operation. With the severe congestion already being experienced, consideration for expanded 29 MHz repeater allocations becomes imperative. The 200 kHz from 29.500-29.700 MHz just will not accommodate the demand placed on these frequencies by licensed amateurs.

In conclusion, I respectfully proposed the Commission expand FM Repeater allocations on the 29 MHz band from 29.500-29.700 MHz to 29.000-29.700 MHz.

Respectfully submitted,
BERYL GOSNEY, KE7C
Oak Harbor, Washington □

Special Events...

Nuclear experiment's 40th anniversary

The Argonne Amateur Radio Club (AARC) plans to operate the club's Memorial Station, W9QVE to commemorate the 40th anniversary of the first controlled nuclear chain reaction experiment conducted at the Alonzo Stagg Field on the University of Chicago campus.

Two stations will operate 4 December, from 1500 GMT through 2400 GMT, 5 December 1982. **Frequencies** (from lower band edges): 80 - 10 meters. *Phone* — 85 kHz up; *CW* — 40 kHz up; *Novice* — 40 kHz up; *2 meters* — 145.19/144.59 rptr, 146.52 and 147.42; and *RTTY* — 14.090 and 146.70.

Send business-type SASE or $1 for 8″ × 11″ unfolded certificate to AARC, P.O. Box 275, Argonne, IL 60439. □

Pearl Harbor

Members of the Pearl Harbor Survivors Amateur Radio Net will conduct a special event on 7 December 1982 from 0700 until 2400 CST on 7.283 MHz, 14.283 MHz and 21.363 MHz.

This operation, which occurs during the National Convention of the Pearl Harbor Survivors Association in San Antonio, Texas, will originate in the San Antonio Radio Club station (W5SC). Stations making radio contact with W5SC during the hours of operation will receive a certificate containing a picture of the *USS Arizona* Memorial in Pearl Harbor plus other data pertaining to the attack on Pearl Harbor on 7 December 1941. □

Bethlehem, WV

The Triple States Radio Amateur Club will operate from Bethlehem, West Virginia, 9-12 December, from 1400 to 2300 UTC daily. Operating frequencies for WD8DDL/8 will be 7.275, 14.325, 21.425 and 28.550 MHz on SSB, and 7.110, 14.075, 21.110 and 28.110 MHz on CW.

Special holiday certificates will be sent to all those contacted who send SASEs to TSRAC, 26 Maple Ln., Bethlehem, Wheeling, WV 26003. □

50 years with ARRL

The Valley Radio Club of Eugene, W7PXL will celebrate their 50th anniversary as a member of the ARRL. Operation from 1800Z, 11 December until 0600Z, 12 December 1982. Frequencies: phone — 3.980, 7.280, 14.280, 21.380, 28.680.

Special certificate for QSL and large SASE to W7PXL, 150 East 18th Ave., Eugene, OR 97401. □

Christmas, Florida

Announcing the third annual Coronado Wireless Association station K4HML from 1400Z to 2200Z, 18-19 December. Frequencies will be about 7.282, 14.282 and 21.382 MHz.

For special QSL, send SASE to K4HML, P.O. Box 1, Edgewater, FL 32032. □

Cable TV

(continued from page 1)

about or what kind of an action this is," he said.

Burrell said he "was aware that there have been some allegations. The allegations were that we were interfering with Amateur Radio, and my understanding is that the FCC was in town at one point and brought some violations of signal leakage to our attention. They have been fixed. We spent over $500,000 to rebuild the system and are in the process of completing everything. Some of the plant is old, as we are almost done rebuilding all of our systems and will be done by the end of the year." I asked for further background on the problem, but was told, "At this point we probably are not going to give anybody any comment until we can research this and find out what is going on. We met with Helzer and as far as we know, no one has been able to substantiate the interference. We have complied with everything that is required by the FCC. We know that a form letter was sent out by Helzer on interference, asking amateur operators to complain. We got a couple of letters complaining in areas that we do not even serve, so it was not well orchestrated, I don't believe. Common sense would tell you that before you assess a fine, you have a hearing."

— *W5YI Report* □

ARRL Southwest Division Vice Director Pete Matthews, WB6UIA (left) and Victor Valley Amateur Radio Club President Dave Sommers, WD6ADH hold a framed proclamation, presented to the club by Jean DeBlassis, mayor of Victorville.

Victor Valley ARC honored by city

On 12 October 1982, the Victor Valley (California) Amateur Radio Club was honored for 25 years of service to the community by having the week of 17-24 October officially proclaimed as Amateur Radio Week in the City of Victorville. The club president — David Sommers, WD6ADH — received a distinctive framed proclamation from the Honorable Jean DeBlassis, mayor of Victorville.

Later that evening, the club members were additionally treated to a visit from ARRL Southwest Division Vice Director Pete Matthews, WB6UIA. Pete was delighted to see the rapport that the Victor Valley Club had established with the local community.

If things have been a little quiet in your town, or you feel that some recognition for your group's many years of public service may be a bit overdue, get with your city fathers and find out if they are aware of the contributions made by Amateur Radio to your community. A week dedicated to Amateur Radio activities can be a lot of fun, and perhaps get a lot of new folks started on the road toward becoming amateurs as well. □

See you in *Worldradio*

If you participated in or know of an interesting event involving Amateur Radio, send in the story to **Worldradio**. Pictures are especially welcome and will be returned. ***Worldradio, 2120-28th St., Sacramento, CA 95818.*** □

Governor John Spellman, signing the proclamation of Washington State Amateur Radio Week, which ended with the Washington State QSO Party. From left to right are: Joe Winter, WA7RWK, ARRL Section Communications Manager, Northwest Division; Willis Propst, K7RS, Washington State QSO Party Coordinator; Governor John Spellman (seated); Ethel Davis, W7WLX, representing Northwest Amateur Radio Women; Bob Hudson, K7LAY, representing Western Washington DX Club and international Amateur Radio friendship; John Brown, W7CKZ, ARRL Public Information Assistant, Northwest Division.

Amateur Radio Week in Washington

The week of 13-19 September 1982 was proclaimed Amateur Radio Week by governor of the state of Washington, John Spellman. Among the reasons given for the proclamation were:

The Amateur Radio Service is recognized as a national resource to serve the public; radio amateurs are mindful of their responsibilities to the state and the nation, ready to assist in times of natural disasters and public emergencies; and amateurs are recognized as ambassadors of good will because of their worldwide person-to-person communications abilities. □

Amateur Radio Week

On Thursday, 10 June 1982 at 11:20 a.m., New Hampshire Governor Hugh J. Gallen signed a proclamation declaring the week of 21-27 June as Amateur Radio Week in New Hampshire. Governor Gallen then read the proclamation over the 146.055/655 (Mt. Washington) and 146.34/94 (Concord) repeaters.

A call-up followed the reading of the proclamation. Thirty amateurs called in from all areas of the state. Governor Gallen was very impressed with the wide coverage of the repeaters, noting that his own mobile radio did not have such wide coverage. □

Surprise!

William Frost, WD8DFP

Ed Stukenborg, W8KRJ thought he was doing his duty as a Miamisburg (Ohio) City Councilman by attending the Citizen of the Year Banquet earlier this year. After all, it wouldn't do for council not to be well represented at one of the *BIG* events in Miamisburg, even though it meant he would have to miss a meeting of the Monsanto Amateur Radio Association.

W8KRJ had a surprise that evening — *he* was the Citizen of the Year for 1981! He accepted the award, which was presented by Miamisburg Mayor Robert H. Mears, Sr. in behalf of the Miamisburg Business Association.

— *The Miamisburg News, OH* □

As a civilian, Bill Shortz, KA9BZM is sportscaster for WIFN Radio at Franklin, Indiana. As a member of the Indiana Army National Guard, he's a broadcast journalist for the 120th Public Affairs Detachment at Indianapolis. When his unit spent two weeks training at Camp Grayling, Michigan this summer, Shortz found time in the evenings to pursue his interest in Amateur Radio. His QRP operation includes a Heathkit HW-8 transceiver, an MFJ tuner and keyer and a 40-meter dipole 10 feet in the air. Shortz made several contacts in Illinois, Indiana and Ohio on 2-watts of power.

Noble amateurs assist Shriners

Lenore Jensen, W6NAZ

The potential usefulness of Amateur Radio is being demonstrated to the large membership of Al Malaikah Temple in Los Angeles by a growing group of amateurs within their midst.

Now officially designated as the Al Malaikah Amateur Radio Shrine Club, with a membership well over 70, the men have been very active in serving their potentate.

The club's original undertaking was to provide communications throughout the huge Shrine Auditorium and Exposition Hall for the well-attended Shrine Circus, using 2 meters. During 432 man-hours of service, their efficiency so pleased the officials that the amateurs were requested for future events.

From left to right are: Hy Schaffer, W6NMP; Jim "Red" Owings, RB6FWZ; and E.K. "Mac" McMullin, W6DSY, founder of the Al Malaikah Amateur Radio Shrine Club.

Wearing handsome royal blue shirts with the Shrine insignia and individual call letters in silver, the teams then provided parking control and emergency services for an outdoor Masonic event, a Third Degree ceremony by an Indian degree team (in full regalia), followed by a barbecue attended by 2,000 Master Masons.

Later, typical amateur help was given a parade in Las Vegas; the Shrine All-Star Football game at the Rose Bowl in Pasadena; the Western Shrine Association's convention (again in Las Vegas); and, by those able to attend, the Imperial Council Session in Orlando, Florida.

A track meet held by the Order of DeMolay in Downey was similarly given excellent communications, with the operators doubling as timers. At Ventura, they helped out at a ceremonial, a parade and a barbecue.

In all of these undertakings, the usual emergencies involving the public arose, which spotlighted the value of Amateur Radio communication.

The club meets Tuesday evenings at 8:00 p.m. on 147.27+ MHz. Noble amateurs also meet on the Masonic Net, 3,900 kHz, Friday, 8:00 p.m.

The licensed operators were first called together two years ago by Past Potentate Everett McMullin, W6DSY.

Present officers are: President: Jim Owings, WB6FWZ; 1st Vice President: Hy Schaffer, W6NMP; 2nd Vice President: Frank Hasper, WA6JEY; 3rd Vice President: Bart Billings, W6CKT; Secretary: Phineas J. Icenbice Jr., W6BF; and Treasurer: Al Berney, KE6JU.

Similar Shrine radio clubs exist in San Diego and Denver, with several more in the process of being established. □

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PUBLIC RELATIONS

(*continued from page 12*)

Phoenix police laud ham's 'fast thinking'

Submitted by Vic Clark, W4KFC

On 30 July, a certificate of commendation and appreciation was sent to Gertrude "Gert" Pond, W7KOY, in honor of her efforts in helping Phoenix police apprehend a burglary suspect. Following is the story of what happened.

On 27 July 1982, Ed Gordon, WB7OKK and his family — of Maryvale, Phoenix — returned to their home and found the front door kicked in. They had been burglarized, losing over $2,500 in appliances, jewelry, equipment, and a portable Amateur Radio hand-held transceiver.

Ed announced the description and serial numbers of the stolen radio equipment at 5:30 p.m. over Phoenix Amateur Radio frequencies, telling valley hams to be on the lookout for his transceiver.

Gert Pond, W7KOY overheard the broadcast concerning the stolen radio, and later that evening, commented on the air that if anyone might be listening to or had knowledge of the recently stolen radio, they would be better off trying to return it to the owner, rather than holding onto stolen property.

Moments later, a voice called Gert on the air and announced that he had just purchased a few hours ago what he was told was a "CB" handi-talkie for $20. This turned out to be Ed Gordon's transceiver stolen only hours earlier.

Gert Pond deftly conversed for half an hour, after which the voice called "victim" Ed and set up a meeting for 8:30 p.m. to return the stolen radio.

Phoenix Police Department burglary (west) detectives were notified, and immediately accompanied victim Ed to the suspect's home where the suspect was arrested for possession of stolen property and on traffic warrants.

Later interrogation that night implicated the suspect's employer, and resulted in the recovery of all stolen stereo equipment from that day's burglary. Both the suspect and his boss were apparently only "purchasers" of the stolen property, and are cooperating in locating the *actual* burglars. The investigation is continuing.

Because of quick and effective action on Gert Pond's part, plus her vocally convincing abilities, close to $2,000 of the $2,500 value items stolen only hours before were returned to Ed Gordon. Gert Pond has been recognized for her public service activities many times before, but never has *she*, nor probably any other Amateur Radio operator in the nation, ever actually talked a purchaser of "hot" or stolen electronic equipment into his own arrest, resulting in recovery of the missing items within hours of the actual break-in.

For these actions, we commend her.

Ruben C. Ortega, Chief
Phoenix Police Department □

Manning the telephones for Nebraska Educational Television's summer fundraiser are members of the Lincoln Amateur Radio Club. *Front row* (left to right): Reynolds Davis, K0GND; Gordon Trout Jr., W0KBS; Steve May, WA0ASM; Jerry Kohn, WD0EGK; and Bruce Steyer, KB0KA. *Middle row:* Barbara Woerner, KA0GON; Ed Woerner, WA0QJK; Joe Eisenberg, WA0WRI; Dan Dunkle; Russ Copple, WB0RRK. *Standing:* Ron Hull, General Manager of NE ETV; John Hauner, WA0YPY; Bob Mitchell, WB0RJJ; Dianna May, WD0FGV; Harold Tudor, WB0QQS.

Helping hams give public TV a boost

Reynolds Davis, K0GND

Thirteen volunteers from the Lincoln (Nebraska) Amateur Radio Club assisted Nebraska Educational Television and Nebraskans for Public Television, Inc. by "manning the phones" and taking pledges and donations during the last night of ETV's annual week-long fundraiser — 29 August.

Hundreds of calls came into the Lincoln studios from all areas of Nebraska, as well as northern Kansas, and local MCs promoted the Lincoln Amateur Radio Club — as well as Amateur Radio in general — during local "cut-aways" which occurred throughout the evening. □

Iowa amateurs take part in drill

Dave Schneider, WD0ENR

Amateur Radio operators from Mount Pleasant, Iowa and the surrounding area contributed to a successful countywide simulated disaster drill on 5 June.

Henry County Disaster Action Director, Ed Farley organized a realistic emergency situation. The mock disaster simulated a chemical fire which included casualties and the actual evacuation of an area near the fire.

The Mount Pleasant Amateur Radio Club was called upon to provide communications at several sites, including the scene of the fire, evacuation shelter, emergency operation center, hospital and community mental health center. Both the local repeater W0MME/R on 147.39 and 146.52 simplex were utilized.

The county's Amateur Radio Emergency Coordinator Randy Nelson, WB0VHB and his assistant Dave Schneider, WD0ENR organized the amateurs' efforts. Other operators who were out with hand-helds or set up portable 2-meter stations were Roy Lewis, WA0KLD; Kate Byczek, KA0EHI; Bill Barber, KA0BTE; Dean Frish, W0QJF; and Paul White, WA0YYL.

Traffic to the Southeast Iowa Blood Center, 50 miles away in Ottumwa, was handled directly from the Mount Pleasant hospital to the Blood Center via a 2-meter phone patch. Those responsible for this setup were Frank Baker, K0EAK; Dick Corry, WB0SWR; and Ralph Spurgeon, WB0DMM.

Also involved with the exercise were emergency medical technicians Bob Byczek, WB0TEY and Ron Beadle, WD0ALY.

The efforts of the radio operators received much praise from county officials observing the drill. The amateurs also felt well pleased, knowing they were more prepared to serve the community in emergency situations. □

Media meet

Lenore Jensen, W6NAZ

How to approach the media was the subject of a lively hour arranged by Bill Pasternak, WA6ITF at the Southwestern Division ARRL Convention in San Diego, 5 June.

Alan Kaul, W6RCL — West Coast producer of the NBC Nightly News — surprised the audience with the fact that at least 7,393 stories including Amateur Radio have been included on the wire services, the BBC, a couple of major newspapers, the Encyclopedia Brittanica and several magazines in the past five years. He obtained this information from the computerized service called NEXIS which keeps track of such things. When it was asked how many stories had included *foreign* Amateur Radio, the answer was 346!

To those of us who feel frustrated at trying to capture the attention of the media, it was indeed a surprising revelation. However, Alan then explained why we so seldom find Amateur Radio included on network newscasts as he described his efforts to select from the many hundreds of news items occurring each day on the West Coast, to end up with possibly three or four. Those lucky enough to be selected then must be told in "a minute fifteen — or possibly a minute twenty, if we're lucky!"

Jim Vella, chief assignment editor of KCST-TV, San Diego, said, "My advice is that you should notify your local station well in advance of your planned event, by mail, giving all necessary information and phone numbers. Then, a couple of days before the big day, phone your assignment editor to remind him or her; *be brief* but make your 'pitch' convincingly in simple language, in terms of viewer interest."

"If you are involved in a local happening 'at the moment,' do call in, as we may not know about it."

The community level was covered by Peter Van Hagen, WA6HXM — an ARRL PIA (Public Information Assistant). Feeling that the greatest threat to Amateur Radio may be more severe antenna restriction ordinances, Peter feels amateurs should not overlook local cable companies and their "public access" opportunities for TV program production.

He and Mel Hughes, K6KSY have turned out three separate series in their Palos Verdes community — two about Amateur Radio and one of strictly local interest. By giving local officials the opportunity to be interviewed and by covering local events such as music fairs, marathons, horse shows, etc., the two amateurs have managed to bring our public service hobby up to a high level of respect by their neighbors.

Bill Pasternak of Metromedia (and also producer with Burt Hicks of Westlink News) cautioned us not to use "hamese talk" when communicating with the media. He pointed out the great coverage given the JPL (Jet Propulsion Lab) Amateur Radio Club's airing of the shuttle flight over 2 meters and 220 MHz. When the local news services were alerted, it was explained that many individuals have scanners and receivers capable of tuning in 144 MHz to hear the complete shuttle audio.

"Suddenly," Bill continued, "the JPL gang was inundated with inquiries from radio, TV and newspapers! We had managed to explain in simple terms the very complex activity happening in Amateur Radio."

Answering questions about Westlink,

Bill noted that phone numbers are (213) 465-5550 and 768-7333 on the West Coast. In the Midwest: (513) 275-9991 and in New York City: (212) 224-1555. However, to file a story use (805) 251-7180.

A few tips on approaching radio were given by the writer. ARRL has issued a new tape of Public Service Announcements featuring Gary Owens, Bill Bixby, Lorne Greene and Dick Van Dyke. These spots run 20, 30 and 60 seconds and are available to anyone able to convince a station's public service director to use them. For TV, there is a 30-second spot featuring the stars of *Trapper John, M.D.*

Also, it should be remembered that many stations run announcements as "Community Bulletin Board or Calendar" spots. These should be sent in about three weeks prior to an event of *interest to the general public,* neatly typed, to run about 30 seconds and always including on the paper the name and phone number of the sender.

The League's excellent film, "*The World of Amateur Radio*" is available from headquarters or from the Division Director. Produced by Emmy-winning filmmaker, Dave Bell, W6AQ, it runs 28 minutes and is suitable for TV as well as for showing at service clubs and schools. All amateurs are urged to find showings for it.

A suggestion as to "how to think media" was made by Alan Kaul. "For instance," he said, "if your group is providing message service during a disaster, don't put up a sign saying 'Emergency Communication Center,' Instead, print it as 'Next-of-Kin Notification,' and I promise you that a media cameraman would have a hard time passing it up!"

Jim Vella urged ham groups to always stress something new in their press releases. Alan cautioned that Field Day, for instance, is not exciting to an editor, but "disaster preparedness" should be.

While we "think media," we remember the advice given by Jay Reisman, KB6IZ — a CBS station news producer: "Amateur Radio itself is not news but its effect on other people *is*!" □

Baton Rouge adopts the 'Kidd'

Norm Bermes, KA5AMF;
Doris Willkom, WB5JEH
Submitted by Russ Allor, N5ADF

22 May 1982 was a red-letter day for Baton Rouge, Louisiana. It was the day the state of Louisiana officially adopted the "*Kidd.*"

The *USS Kidd,* a Fletcher class destroyer which had distinguished itself in both World War II and the Korean conflict, was saved from mothballs by that adoption, largely through the efforts of Rep. Henson Moore (R-LA), who was able to secure the vessel as a naval war museum, to be berthed at the Port of Baton Rouge. It was with joyous acclaim that she was welcomed by her "third crew" — the citizens of Louisiana.

Orders of the day called for communications with a command post, personnel aboard all ships, and contact with all commanders and others in charge of the operations. Area Amateur Radio operators met with L. Wayne Gordon, K5EOA at 1400 for assignments. The communications were to be continuous from 1400 to 2130, a 7½-hour period of time — a good test of men and equipment for the 12 amateurs who responded to the request for operators.

The arrival of dignitaries from Washington, the escort of more than 50 pleasure craft as the *Kidd* made her way up the Mississippi under tug power, the flags on display, the bunting and streamers hung from the entrance bridge, the confetti showered down upon her, the salute by a Coast Guard cutter and the spraying of streams of water from a fireboat.

As a culmination of the day's ceremonies, there were flybys of the Confederate Air Force (Cajun Wing), coordinated by Shirl Cook, K5OPL, who also coordinated the simulated attack on the *Kidd* by a Japanese Zero. The *Kidd's* guns — small portable cannons for sound and smoke effect — blazed away; simulated depth charges were detonated and the Zero departed, leaving a trail of smoke.

Operations chairman was a local television reporter, assisted by K5OPL; Richard McCandless, KA5CMX; Donald LaBrenz, KC5MP; Ted Von Dameck, KB5YY; Walt Jones, KC5XC; Jack Coffee, WD5ELJ; KD5BA; Percy May, N5DHM; John Harris, KB5TF; Martin Parent Jr., KA5LUM; and WA5AMF, operating from strategic positions. Once again, a community was impressed with the services, abilities and capabilities of Amateur Radio operators. □

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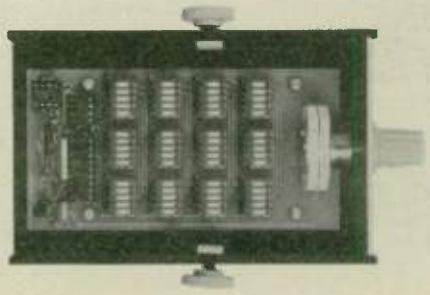

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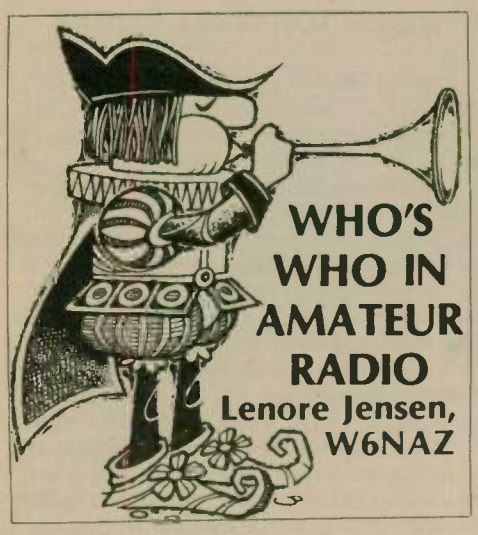

General Curtis LeMay, W6EZV (Ret.) ***(Photo by Bob Jensen, W6VGQ)***

An airman who rose to become Chief of Staff of the Air Force is also W6EZV — four-star General Curtis E. LeMay (Ret.).

His personal history closely follows the development of the airplane and its vital protection of the free world. He also played an important role in the recognition and adoption of SSB by the military.

The commander who personally led his squadrons of B-17s through murderous flak over Germany in daylight and who later, in the Pacific, was required to help plan the atomic bombing of Japan to end WWII, is the same leader who organized and directed the tremendous airlift which saved West Berlin from starvation during the Russian blockade of 1948-49.

Curt's passion for airplanes and deep belief in their abilities sprang from his first sight of a flying machine, at the age of 4 or 5. A primitive model was flying over his Ohio home; the tiny boy was captivated and ran, always hoping to catch it . . . running and running until it finally disappeared. The seed had been sown.

His enthusiasm for radio communications appeared with the crystal set craze, and another important seed was sown. However, "I didn't dabble directly in Amateur Radio till the mid-'30s while stationed in Hawaii and being assigned as a Communications Officer," he recalls.

Typically, he frankly assessed his knowledge and forthrightly set about learning what he needed to learn. He gathered radio parts, discovered that one of his men was a licensed amateur, and worked with the men to get a station on the air. From this, the techniques of radio communication were quickly learned.

Back in 1928 — little dreaming they both would rise to wear the stars of a general — Curt and Francis "Butch" Griswold, now K0DWC, enlisted together in the regular Army and quickly progressed through flying school. Nor did they imagine what Amateur Radio would later mean to them.

Young LeMay plunged deeply into his studies to learn everything possible about aviation and the ways of the service itself. As the years went by, he was stationed at many a post or field and rose rapidly in rank, exhibiting true leadership qualities and an understanding of the nation's needs.

Curtis LeMay became one of the first navigator-pilots of the then new B-17 heavy bomber and excelled as an operations and intelligence officer. In 1937, he executed a daring navigational feat by fulfilling a promise to locate a certain ship 600 miles out to sea — a big news event of the day. Proving that long-range work was practical became high priority with him. He pioneered ferry routes to Africa via South America and the South Atlantic, as well as to England over the North Atlantic. (It all seems so easy in 1982!)

World War II brought tremendous pressure to the services. For Curtis LeMay, it meant being sent, as a colonel, with his 305th Bombardment Group to England in 1942. Frantic training ensued as he gathered planes and men together as part of the famous 8th Air Force.

As the Nazis spread destruction over France and England, Curt and his men became one of the first USAF bombardment units to enter combat. He personally sat in the pilot's seat of the lead plane on many missions, such as a renowned one to Saint Nazaire. Fearlessly proceeding straight to the target through heavy flak, he was dubbed "Old Ironpants." (You'll understand if you read his biography, *Mission With LeMay*, at your library.)

Today the LeMay living room features a handsome large oil painting done by artist Frank Beresford. It depicts a mission of Flying Fortresses from England, which flew to Regensburg for the purpose of putting out of action the German's Messerschmitt plant. They then continued on to land in North Africa. It was a highly dangerous undertaking and a first of its kind, in 1943. (Curt was awarded the Distinguished Service Cross; he'd been the leader in the command plane.)

A small hole can be seen in the canvas of the painting, which had been done from a photo snapped from the window of the waist gunner's position. When it was hung in the Pentagon, someone wanted "to patch up the hole." Gen. LeMay's reaction? "No way!"

The hole occurred when a buzz bomb struck the warehouse in London where the artist had stored his paintings.

Later assignments in the Pacific found him using B-29s in the China-Burma-India theatre, as well as against Tokyo itself. His low-level flying strategies were particularly successful. At the last, he was deeply involved in carrying out the president's decision to end the war by using the atomic bombs. As he stood with the dignitaries on the deck of the *Missouri* to witness the surrender, the entire world breathed relief that the world tragedy had come to an end.

His current enthusiasm for the possibilities of space exploration (and his frustration that we're not doing even more) stem from Curt's years as Chief of Research and Development and his work with missiles. ("No, I've never seen a flying saucer and no, the Air Force did not hide any proof that there are UFOs!")

During his post-war years in Germany, Amateur Radio became important. "Remember," he remarks, "in order to get men home rapidly, the Army was pretty well torn apart. The communications system was in shambles. In the scramble to clean things up, we went through the supply dumps. We came across a lot of BC-610s — the workhorse transmitter. So every radio man got one, and so did I."

"I took my first ham exam in 1947, under military regulations. But we used these rigs on military frequencies, and they were highly useful. Most military communication was so bad, you could mail a postcard quicker. But our radio ops took rigs with them on flights to other countries and I would talk to them at 7:00 p.m. I'd get needed information fast and often relay it, using ham methods, to the Pentagon. It worked fine!"

Later, as commander of the Strategic Air Command at Offut Field, Omaha, Nebraska, he and Gen. Griswold — then vice commander — brushed up on code, studied diagrams and passed the stateside FCC exam. "But we found the crowded ham bands crammed with AM signals QRMing each other. Then, at the low end of 20 voice, we discovered "Donald Duck" stations happily communicating with ease. Astonishing!"

Gen. Griswold borrowed a KWM 1 from his prep school friend, Art Collins (W0CXX, of Collins Radio fame). It was put in a command plane which he flew to Tokyo, with Curt able to talk easily to him the entire way. Another test, on the ham bands — from Thule across the pole to Anchorage — stirred up thousands of QSL seekers, all proving the charms of SSB.

"Finally, we convinced the Air Force to buy sets for our headquarters at Offut and those at Goose Bay, England, Morocco, Guam, etc. We did 24-hour tests that definitely proved the efficiency of sideband and finally got it for all the planes of the Strategic Air Command (SAC). That was the start of military SSB."

The fact that Gen. LeMay's efforts built the SAC into an effective deterrent force is well documented. The last 10 years of his service were at the Pentagon, where he rose to vice chief and then to chief of staff of the Air Force, a mighty responsibility.

Retiring in 1965, he could look back on tremendous accomplishment through hard work and innovative procedures. But Curtis LeMay just shrugs and says, "When something has to be done, you just dig in and do the best you can."

His best-you-can attracted the hundred or so medals, ribbons and plaques presented by grateful governments. One especially treasured is the British Distinguished Flying Cross, personally given by Winston Churchill.

He was nominated for vice president and ran with Gov. George Wallace in 1968.

Today, he continues to serve on the Board of the National Geographic Society. As for hobbies, he still loves sports cars and has even built a couple. An expert marksman, he frequently visits a nearby shooting range.

Amateur Radio is a daily hello to his long-time friend, "Butch" Griswold, on 20 meters and to other aviation buffs, including pilots.

He likes to think forward, not backward, and has deep convictions as to the direction our nation should head. Like the little boy who saw his first flying machine, Curtis LeMay likes to look up. □

SUBSCRIBE TO WORLDRADIO; see page 11.

OFF THE AIR

Warning on Cuba Award

Page 24 of your January 1982 issue contained information on a Cuba Award. As far as I'm concerned, it's a Castro "ripoff" of Yankee greenbacks.

In February 1982, I sent the FRC exactly what they requested — i.e., a certified list of contacts and two single dollar bills. Despite my writing to them twice since, no reply has been received. I would have really enjoyed that piece of wallpaper. You might consider alerting your readers to my plight. Maybe you, I and the rest of American "hamdom" are too gullible.

"DOC" SCHWARTZBARD, AF2Y
Clifton, New Jersey □

Phone band expansion may deter upgrading

With regard to the ARRL's proposal for the amateur phone band expansion, there is just one comment I would like to make.

I received my Extra Class license in June of this year. I did not do it for the prestige. I'm still maintaining my Novice call. I did not do it for the extra 25 kc of CW spectrum we get on 80 through 10 meters. I primarily operate phone. I did not do it for the 20 kc phone segment we get on 15 meters either. I really don't see any big advantage to this. The one reason, the only reason, was for the privilege of being able to operate below 3800 kc on 75-meter phone. That's where the action is!

If I had known there was a possibility that I could operate below 3800 with my Advanced Class License, I would have postponed my upgrading to Extra Class. If this new proposal is accepted and passed, I would have been satisfied to remain an Advanced Class license holder. I have several friends who hold the Advanced Class license now, and they say they are just going to wait and see what happens.

So much for incentive licensing!
WALT GROSCH, KA9GLB
Milwaukee, Wisconsin □

W6VIO, KX6BU come through

Thanks very much for printing my letter in your paper, September 1982 (page 17). I'm writing to let you know the results. Shortly after I wrote you, I received a QSL from George Morris Jr., W6ABW, confirming the QSO with W6VIO. About two weeks later, I received another QSL, and just yesterday, 25 September, I received a third. Talk about results. As far as KX6BU (Kwajalein Amateur Radio Club), I received a postcard from Larry Fureigh, KA6UVS at KX6BU. He informed me that Dave, the operator I talked to, was no longer at KX6BU, but that he and the other members would try to get the QSO information and send me a QSL. But as luck would have it, I received the KX6BU QSL the same day as the third QSL came from W6VIO. Both of these groups are to be commended for their thoughtfulness in trying to confirm QSOs.

As is the case with any club operation, some things are always mislaid and forgotten. Or, as is the case at KX6BU, members come and go. And if each member handles the QSLs for his contacts and then gets transferred to another location, the move can extend the turnaround between QSLs.

So I wish to extend my thanks to both the Kwajalein Amateur Radio Club, K6XBU and the JPL Amateur Radio Club, W6VIO for their time and efforts. Both groups have also gone to much expense to print some of the finest looking QSLs I have received.

TED WHITE, KI8B
Hamilton, Ohio □

Another complaint about station W6VIO

I too am in the same predicament as KE6CZ concerning the JPL club station W6VIO.

I contacted this station on 14 August 1981 at 9:25 p.m. PDST on 7029.9 kHz. The operator was named Merv. He did say that the Special Event QSL would take several weeks before mailing them out. An SASE was sent with my own QSL to verify the contact. Since the postage rate did go up since that time, I sent in another with a 20 cent stamp earlier this year, and so far, no reply.

My own personal opinion is they opened a can of worms that they cannot solve. However, they did gain a lot of free stamps! How can JPL, an organization of unsurpassed reputation with the general public, have a club station fail in their promise to the hams who sent in their SASEs?

ROGER ALEXANDER, W6FGN
San Diego, California □

Use typewriter when copying

A prominent, dedicated, long-time traffic handler writes that he declined to serve as liaison between several high-ranking traffic nets, because he "could not copy code on a typewriter." Some years ago he retired from a busy office where he regularly used a typewriter, touch-typing letters. He continues writing letters, using a typewriter, but must use "a stick" (pencil) to copy radiograms. Although he can head-copy at rather fast code speeds, his "problem" remains. Perhaps there are many others who must make their initial CW-copy by "stick," even if they have touch-typed for years. Is there a "quick cure" for such problem?

My memory flashes back to various articles, over many years, covering such "problem!" I think back to my seemingly useless attempts in articles or columns to put across this point: *touch-typing is merely a skill, and so is copying code on a typewriter.* You learn a skill *by practice!* So don't expect "quick" or effective results if you leave your typewriter in a case, closet or any remote place. Set it up *as part of your radio station, and use it as such!* Build a special stand for your typewriter if you don't have one that is compact — do whatever is necessary to have it always ready for action!

Use your typewriter in QSO, for all letters — everything possible; even keep your log sheet rolled up on the platen. Use your typewriter to the extent that you learn to reach for it rather than a "stick!" Copy W1AW daily, or other stations on regular schedules. Sooner than you may now realize, your present inability to copy code on a typewriter will evaporate quickly if you follow this "formula."

ARMOND BRATTLAND, K6EA/0
Bemidji, Minnesota □

Praises for Ron Flynn

I would like to congratulate Ron Flynn, KB8LU and also **Worldradio** for having the good sense to write and publish Ron's SSTV article in the September issue.

I have been in color SSTV for two years and I'm fascinated by the SSTV fraternity. I have also heard the "group" trying to change the standards. I am amazed at the wanting to change the RGB to RBG or some such. Ron didn't elaborate, but the RGB sequence was not a ham invention; it was started by the first sequential color TV innovators, the Columbia Broadcasting System. Their sequential color system standardized the RGB format on their motor-driven color wheel. The wheel rotated clockwise and presented color filters — red, green and blue — sequentially over the face of the picture tube.

I happened to be informed on this because I built a set and received color TV with their system. Sequential color was used on the first space photos of the moon, using the RGB format.

Sam Mormino, WA7WOD did not establish this sequence and I am sure he is pleased to get "out of the middle" on this question. There also have been some ugly references to Sam's selling his 3000-C system via Amateur Radio. I have never heard Sam quote a price on the air. I remember how I got my 3000-C color board. I asked Sam where I could get one, and he said "I'm OK in the Callbook." That is not selling.

The "group" seems to be jealous of his success, and by the way, Sam is not a rich man from this venture. Without the work done by Sam and his son-in-law, Howard McAfee, KD6HF, we would not have the wide-spread use of color SSTV in the world today. I said "the world," as at least 75 percent of all color SSTV in the world is Sam and Howard's 3000-C system. Their contribution to Amateur Radio needs an award, not a scolding. Orchards to Ron, **Worldradio**, Sam and Howard.

FRED R. SHARP, W8ASF
Cleveland, Ohio □

She doesn't mind working for her call

I was introduced to your fine publication through a friend. . . . I enjoy the paper very much and feel there is something of interest for everyone.

As for the no-code license, I am against it. I have not found it easy to learn code myself, but want a license that I can be proud of. I don't want something handed to me that I didn't work for. Any lowering of standards will only leave Amateur Radio wide open to the mess 11 meters has become. God forbid!

KATHI BACKUS, KA6WCO
Santa Barbara, California □

Why ban lists, nets?

How far have we progressed in Amateur Radio? Is it possible that our technology has passed our intelligence? Can it be that much of our population leans toward hypocrisy?

One of the most common comments one hears on the air is, "Amateur Radio is so great, it has something for everyone." I suppose they speak of the hobby where, if you have the money, you can own monobanders on each band, several transceivers and amplifiers. Do we include the other guy? The one who lives by the dipole and no amplifier? Which hobbyist is more important?

Looking back, more than half of what I now have collected I owe to a list or a net

of some kind. Myself, I have never taken a relayed report, which some seem so concerned about. The percentage of people who operate with the same self-dignity set of rules I operate with is probably 98 percent.

I have sat in awe at my station, listening to what some purport as the only way to work a DX station (the pileup). I have heard gentlemen such as FB8WG, A51PN (the list could go on) try to dig a call or just a letter out of the pileup. Unable to do so because people keep calling so long, they just go QRT or QSY.

Gentlemen, channel efforts toward making Amateur Radio á better hobby. During contests, for example, stations all over the bands run 20-30 kHz wide. These guys don't care because it keeps others from moving close. Why not focus support toward allotting overlapping segments of the General and Advanced bands (i.e., 14250-14300 kHz). This way, non-contesters are not forced out of their weekend of operating. How many lists or nets mess up the whole band for others throughout the entire weekend? I suppose that's OK, though, because somewhere, someone up there likes contests.

I firmly believe that the majority of the "ole-timers" who are against lists or such have all, or nearly all, of their countries and have done so during times the ham population was one-tenth what it is today. I would like to see them start over with a dipole and barefoot.

I hope any kind of a stand against lists and/or nets is only a rumor. Let us consider how much control any organization, which is supposed to help amateurs, should have over how we make a contact.

I feel the desire for the coveted accomplishment in each of us will stop the taking of the invalid report. Those who are dishonest will find a way to be dishonest in every facet of Amateur Radio, no matter what rules are set.

Gentlemen, ponder this and let's all try to improve what we have, and not take away that which we each are entitled to.

PHILIP PRITCHETT, N6ATS
Mounds, Oklahoma □

He's against BY going on the air

This is a reply to your front page story about the poor BY station and their pleas for aid in their problems in setting up an amateur station, et al. (See August 1982 issue.)

My comment is: If the great communist country of China is so destitute as to beg for aid in setting up a poor little amateur station that they need our aid and our financial support, then their super sophisticated system must have a real problem. I thought that they had all the answers!

I frankly hope they stay off the air as they will again think they are doing the whole world a favor. They are our political and military enemies and VE7BC has the gall to ask us for supplies and donations.

Who did we fight in Vietnam? The lousy Reds, that's who. I don't give a hoot in hell if BY ever comes on the air, and I've worked every country in the world. I'll be glad to relinquish my number one honor roll listing if they remove BY from it. I think this is a great sell-out. They are our enemy, and you may quote me on it. I have been an amateur for 43 years, and I am unalterably opposed to recognizing these people as a nation.

Supposedly, the Red Chinese system is independently wealthy as stated, so why do we need to support them as we have done the rest of the world? So far, they have totally ignored the USA amateurs, and as usual, we are the suckers who really got things going again!

End of soap box oratory.

WAYNE GINGERICH, W6EUF
Long Beach, California □

Lid prompts amateur to write

At 1430 on 9 October 1982, I was in QSO with Ed Ballard, K8OTO. We had been in conversation for about 15 minutes when Jerry Thacker, WA9ZIE opened up and began a long CQ on the same frequency we were using. K8OTO and I exchanged Hi Hi's through the QRM and waited until he was finished. K8OTO then told him the frequency was in use and invited WA9ZIE to join us. Instead, he said "No! Get off my frequency. Get off my frequency. Get out!"

After several tries, we finally moved down a couple of kHz to resume our QSO. WA9ZIE at once moved down on top of us again and began more CQs. We finally gave up and signed off, whereupon WA9ZIE sent "It worked."

I believe this is malicious and willful interference, as defined by FCC regulations. I'd like to see this lid get his "comeuppance." Amateur Radio isn't all WA9ZIEs, thank goodness.

BERNIE PEAKE, N4CR
Salisbury, North Carolina □

Shamefaced boy discovers new world

Back in 1939, there was a 9-year-old lad hiding in the bushes of a yard, waiting for just the right moment when he could make a dash into the yard and gather some pears from the only tree in the yard.

The moment came, and in a flurry of flesh and old clothes he dashed from the bushes toward the tree. The moment he had his hands full of choice pears, a big hand was clamped on his shoulder. The surprised kid dropped the pears to the ground and let out a cry as he looked at a man who seemed as tall as the sky. A 6-foot 3-inch 215 lb. blonde man asked "Are you trying to steal these pears?" The boy answered with a meek yes. The man, whose name was Norman, said, "Son, come over here to the steps; I want to talk to you."

Once seated on the steps, Norman explained to the boy how kids could get into all kinds of trouble taking things that do not belong to them. Norman said he thought it would be good if the boy told his parents about what had happened. The boy agreed to talk to his mom and dad.

With a sick feeling and a lump in his throat, he told his parents. They told him to go back and do some work for Norman free as his punishment. The next day, the boy knocked on Norman's door and explained his punishment to Norman. With a broad smile, Norman said fine. "First sweep the walk and driveway, then we will clean my radio room." The boy made short work of the sweeping, wondering all the while what a radio room was.

With the sweeping done, Norman led the way to the attic. When the boy stepped through the door of the radio room, he thought he had stepped into another world. One wall was lined with 6-foot cabinets filled with electronic equipment. Switches, lights and meters were everywhere. Another wall was full of funny-looking postcards from all over the country. His attention was drawn by a funny noise to the bench where Norman had seated himself. Norman was turning some knobs and from the speaker came a man's voice saying "CQ CQ CQ This is W3PEK W3PEK W3PEK." "This is W2NJ W2NJ W2NJ. Do you copy?" The switch was flipped back and there was the same voice saying "W2NJ W2NJ."

Norman told the boy to bring a chair up to the bench. While he did so, Norman again flipped the switch and talked some more. The boy heard his own name and age this time, along with some strange words like QTH and ten over nine. Then the switch was thrown again, and the voice came back on the speaker only this time the voice was talking to the boy!

After a few more rounds of flipping the switch and some more strange talk like "73's," "See you later down the coax, etc.," a knob was turned and silence fell across the room. The only sound was the footsteps of Norman's wife and his mother bringing in sandwiches and lemonade. Norman tried to explain to the boy what had taken place on the radio.

The boy spent many more enjoyable hours in the radio room — excuse me, the ham shack with the wonderful world of Amateur Radio.

Norman took a kid who was trying to steal some pears and started him on the right road — a road of excitement, enjoyment, fellowship and service to the community.

By the way, Norman gave me the pears and I enjoyed them more than if I had succeeded in stealing them.

Thanks, Norman, for catching me and introducing me to the world of Amateur Radio.

GEORGE WACHTER, WA4JSM
Huntsville, Alabama □

STATION APPEARANCE

The Station Appearance award this month goes to Scott Douglas Jr., KB7SB (ex-WB6CDM). Scott's main ham interests are DXing and award-hunting and sponsoring. (Scott is **Worldradio's** Awards editor.) He is a life member of ARRL and the Western Washington DX Club. He's also a member of the Southern California DX Club, Canadian Amateur Radio Federation and Radio Society of Great Britain. Licensed since 1961, Scott is active in Navy MARS (NNN0KEO) and Los Angeles County Radio Amateur Communications Emergency Services and Civil Defense.

The equipment shown in the photo is as follows: *Top shelf* — HAL ST6000, CDE T2X control, Alpha 76CA, Kenwood HC10. *Lower shelf* — HAL DS3100 ASR, TR7, SP75, TR7 VFO, SP7, MN2700. *Below lower main* — Mic switching, Datong FL1, Kenwood 7800 2 meters. The desk is an SF Radio. The micro-peripherals printer is a RTTY 48. □

Off the Air

One day late

The item on page 31 of the September issue re N5-6-7-CAS sparked a memory in me.

A few years ago, when I was an active contester, one of the more consistent (and *LOUD!*) stations from Arizona was W7AZG. We had quite a few contest-type QSOs over a couple of seasons, but never a "real" QSO. Now, unknown to me, he was trying to work as many AZG suffixes as he could, but we never managed to hook up for a ragchew. So, one day, I received a frantic phone call from one of the local fellows relaying a message from W7AZG — would I please meet him on 75 metres at such and such a time on Friday? Well, sure — glad to!

Comes the day, I sit down at the rig and call "W7AZG, this is VE7AZG." And back comes a loud voice saying "You're too late!" "What do you mean, too late?" "This is W7AC — I just got my new two-letter call in the mail. I used to be W7AZG. So you're too late, by one day!"

He had known of the impending arrival of the new call, and hoped to make our contact before it arrived, but no such luck.

Come to think about it, I don't think I've heard him on the air since then, as I've been both inactive and non-contesting for some time now.

DAVE BENNETT, VE7AZG
Langley, British Columbia, CANADA

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DX WORLD

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

Activities Calendar

13-14 November	DARC European DX Contest (RTTY)
13-14 November	Czechoslovakian DX Contest
27-28 November	CQ World Wide DX Contest (CW)
04-05 December	ARRL 160-Meter Contest
11-12 December	ARRL 10-Meter Contest

W-100-N

Worldradio's famous Worked 100 Nations appears to have been forgotten. At least, that is what it looks like here from the last few applications for the award. No applications were received in August or September, and only one during the latter part of July. But we did receive one this time, and our congratulations go to:

186. HC2RG Reynaldo G. Navarrete

Rey concentrated on SSB and used all bands, 40 through 10 meters, for working the required contacts necessary for W-100-N.

Requirements for this award are available for an SASE to the above address.

I received a note from an overseas reader who wanted to know if an appointed awards manager authorized to check and confirm QSL cards for this award would satisfy the rules in lieu of sending the cards directly to **Worldradio**. We would accept an application under these conditions. There would be no reduction in the fee, though.

Suitland Island (KJ6DO/KH7)

DXers were alert for the possibility of a new one during the month of September. This Suitland Island was reported to be in the North Pacific and the site of the "Port Cochran Project." A scheduled date of 15 September was given when the transfer of control of this island from the Pentagon to the Department of the Interior. News releases of a DXpedition were sent to all the DX newsletters, (although not **Worldradio**), and even the ARRL to request DXCC status, announcing the scheduled operation of KJ6DO/KH7 from Suitland Island.

If you never heard this one, it's because it was all a big hoax. The editors of *DX News Sheet* had already questioned this operation prior to the expose as they couldn't find the island in the biggest Times Atlas, and the United States Embassy in London denied all knowledge of the island. Good show for the British!

The material that was sent to all the DX publications had looked good and evidently fooled the best of us. As Jim Cain, K1TN, editor of *The DX Bulletin*, put it, "At least all us fish drowned together!"

One of the big signals out of the Philippines is that of DU9RG, operated by Robin U. Go, who is general manager of the Cotabato Television Corporation. His antenna farm consists of six-element Yagis on 20 and 10 meters, a five-element Yagi on 15 meters and a two-element Yagi on 40 meters. These are all mounted on two towers. Robin didn't state how high they are, but they are painted red and white!

Peter and Paul Rocks (PY0SP)

This one was no hoax and went off as planned. The group had left late, encountered bad sailing conditions and did not arrive at the rocks until dusk on 27 September.

Some praise the operations of PY0SP and others have condemned the operation as a very bad case of DXing. It was the subject of much discussion at the recent Pacific Division Convention in Santa Cruz, California. As the operation was partly funded by the Northern California DX Foundation, there were DXers who wanted to cut off the funds. Obviously, this will not be done.

PY0SP was transmitting on 14.195 MHz and asked for calls to be spread out of the entire American phone band! All this amounted to was a game of Russian roulette which disrupted several of the service nets, phone patches and other contacts in progress. This DX editor didn't even make an attempt to go after the station. I'm still restricted to transceive operations, and I would have gone crazy swishing my VFO back and forth to no where. Perhaps future DX operators will use the brains God gave them in directing return calls to them. Rumor has it that some of the operators are going to Heard Island.

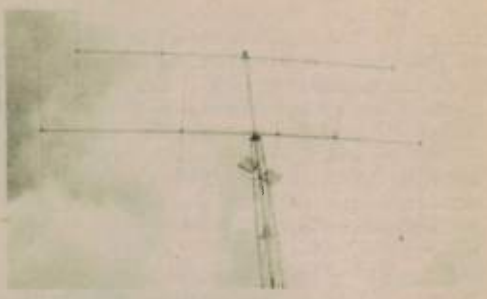
Sealand (S1A)

Those stations heard recently signing S1AB, S1AH and S1AS were to have been operating from "Bates Island," a World War II fort in the mouth of the Thames which is now under private ownership and claims independence from Britain. The stations were operated by a group of German amateurs and were on all bands operating both CW and SSB.

Bates Island (or Sealand Island) is not really an island, but rather an observation deck and gun platform, constructed as a caisson on pilings a few miles off shore. The following description is from the *DX News Sheet*.

"Sealand or Bates Island is officially known as the Roughs Tower Fort and is located about 10 miles southeast of Harwich. It is a cluster of oil rig-type buildings standing on steel piles in about 50 feet of water, which were built during the Second World War to guard the Thames Estuary. Abandoned by the British government after the war, the fort has been occupied by a Mr. Roy Bates and his family since 1967. The UK Home Office confirms that at present the fort is outside British territorial waters, but it seems that Britain may well seek to extend its territorial limits, in which case Mr. Bates will come under Home Office control. On a number of occasions Mr. Bates (King Roy) has sought diplomatic recognition from other governments, but so far none have accorded him this. The story is not entirely humorous, as in 1978 there was an incident when shots were fired and several people held hostage during an attempted takeover by the "Foreign Minister." The fort was considered for DXCC status about five years ago but rejected because the structure is entirely artificial with no dry land even at low tide."

This one sounds like the 7J1RL Okino Tori-shima blunder a few years ago. All it amounted to was a platform constructed by the Japanese amateurs on a reef to celebrate the 50th anniversary of the JARL. It was also referred to as Baldwin's Reef.



Those towers at DU9RG!

Heard Island (VK0HI)

J.B. Smith, VK9NS, president of the Heard Island DX Association (HIDXA), furnished **Worldradio** with additional information on his group that is to go to Heard Island at the same time. There is no connection between the two groups, and no reference is made to the other group in this material. In his letter, Jim writes:

"As a private group of radio amateurs and scientists, we are aiming to undertake an expedition to Heard Island in the South Indian Ocean during January and February 1983.

"Heard Island is a rarely visited ice-covered island of about 25km in diameter and dominated by a nearly 3,000-meter high volcano. The remnants of the ANARE (Australian National Antarctic Research Expeditions) buildings, abandoned in 1955, are surrounded by seals, penguins and other Antarctic birds.

"As a means of transport to the Island, HIDXA has negotiated a charter of the ex-whale-chaser *CHEYNES II*, now based in Hobart, Tasmania. This vessel is particularly suitable for such a voyage. The 160-foot long vessel is steam-powered and ice-strengthened, and is currently undergoing rework for survey as a deep sea trawler and salvage vessel.

"We are planning to steam from Hobart via the southern route near the Antarctic continent to Heard Island, and stay on the island for about two weeks. The return route takes us straight back to Hobart. During the stay of the main party, the vessel would be free for survey work in that region.

"HIDXA is a non-profit organization, and expeditioner/members will contribute equally

toward the basic charter costs of *CHEYNES II*. There remain many additional costs such as fuel, accommodation (tents), food, etc. The logistics are considerable for a group of 18 Amateur Radio operators and scientists.

"We are seeking your positive approach to assisting the HIDXA venture in whatever way you can. A great deal of local and international publicity will be given to the expedition, as we will reserve berths to a film crew and journalists. The international interest through Amateur Radio will be extensive, and already a few expeditioners from overseas have joined us. The ABC-TV News has already commenced coverage of the plans."

As you will remember, last month we printed the information provided by the other group that is endorsed by IDXF and NCDXF, as they are contributing $10,000 each for the expedition. This group did not make any reference to the HIDXA, of which Jim Smith is president.

The Heard Island DX Association was formed in 1980 to consider the possibility of an expedition to Heard Island. Jim Smith had planned to go there last year, but had to cancel the operation, as they did the year before. Perhaps this is the reason the other group got into action to form a Heard Island DXpedition of their own.

Cocos (Keeling) Island (VK9Y)

Those AX9 prefixes that you have heard recently are only one of the many Australian prefixes authorized to honor the Commonwealth Games that were being held in Brisbane. Several of the amateurs on Cocos Island were making use of the special prefix. As you read this, they will have returned to the normal VK9 prefix. If you need this one, listen for VK9NYG who has been reported near 21.270 or 28.495 MHz from 1200 UTC. Don't stall on this one as the operator will be returning to Western Australia the end of November. Frank may return in 1984 for another two-year tour of duty.

Other stations on the island include VK9YB, VK9YC and VK9YE.

Tonga (A35)

The only station on Tonga that we have seen in the various DX sitings is A35EB. This station moves about the bands, as he has been reported on 14.325 MHz at 0800 UTC working into the central United States and on 28.630 MHz working the easterners at 2200 UTC.

Pakistan (AP2)

Not much has been reported on this one, but perhaps you might look for AP2HA who has been reported on 40 CW on 7.001 MHz around 1400 UTC working the West Coast. If you would rather stay in the phone bands, try looking for AP2HM who has been working into the central reaches from 0200 UTC on 14.205 MHz.

Azores (CT2)

This little island group is off the coast of Portugal. In fact, it is quite some distance from the mainland of Europe out in the Atlantic Ocean. In the early days of transatlantic flights, the island was used as a refueling stop. Fortunately, the island group did not fall into Axis hands during World War II.

Bill Hatcher, CT2EV is looking for the deserving and has been reported on 7.002 MHz working Europeans around 0500 UTC. Bill formerly held the call of VQ9KK and was the 67th amateur to apply for **Worldradio**'s W-100-N award. For his efforts he received the Africa plaque, being the first one from that continent. Bill has also held the calls KP4KK/DU2, VP2EKK and VP5KK. If you work CT2EV, send your QSL card via Mary Crider, WA3HUP.

Also from the Azores is Pedro Guimaraes, CT2CR, who was worked on 14.219 MHz from 2400 UTC; CT2KTR who was worked on 14.025 MHz from 2300 UTC; and Luis P. Ferraz, CT2QN, who was found on 14.017 MHz at 2400 UTC.

A small pileup was created on 75 meters when N1XZ/CT2 appeared on 3.779 MHz one evening in early September at 0300 UTC. Take a listen on this band as much DX does show and is never reported.

Central African Republic (TL8)

Several times — all on 14.220 MHz — TL8GE has been reported working the deserving DXer between 0300 and 0500 UTC. If you need this one, take a listen on or about that frequency.

To satisfy the need for CW contacts, TL8ER has been busy on 21.025 MHz from 2000 to 2200 UTC.

This one is still needed at N6JM. Perhaps I should go look for one instead of telling you about it. This reminds me of the time when I heard a TL8 coming through the 10-meter SSB long-path. I figured I couldn't work him as he was very weak, so I announced it on the DX club repeater. I then changed my mind and decided I wanted to try, but it was too late as I created a pileup. Me and my big mouth!

Kirghiz (UM8)

As for DXCC credit, the Soviet Union is made up of several republics, totaling 18

so-called countries. This includes Kaliningradsk and Franz Josef Land, which are not republics at all, and Russian S.F.S.R. broken into two separate countries, European and Asiatic. Therefore, this would bring it down to 15 republics making up the Soviet Union. For W-100-N purposes, the Soviet Union only counts as one nation.

One of the 15 republics reported active recently is Kirghiz, located deep within the Soviet Union, which is bordered on the east by China. If you need this one, look for UM8MDE, who has been reported operating CW on 14.018 MHz around 1200 UTC. UM8MDX has also been reported on the CW bands and has been worked on 14.042 MHz from 0100 UTC and 21.045 at 1400 UTC. If you like to visit 40 meters, look for UM8NAP, who has been found on 7.007 MHz at 2400 UTC. All the above reports are for contacts made from the East Coast.

Tadzhik (UJ8)

Tadzhik, another one of the Soviet republics, has always been one of the elusive ones. At least, that is the way it was on the West Coast, and getting a QSL card from a UJ8 was harder yet. In recent years, several new stations from this country began to appear. Here are at least three of them you might take a listen for. On 15 meters, UJ8JAS was worked on 21.033 MHz around 1500 UTC with UJ8SAD being worked on 20-meter SSB on 14.203 MHz at 0300 into the central regions of the United States. Again, 40-meter DXers should look for UJ8AB who has been reported on 7.007 MHz from 0300 UTC.

It is still hard to get a card from this one. This DX editor has worked Tadzhik on both CW and SSB, on three different bands, and still no QSL card. Most likely, they are sitting at the QSL bureau; I have not received anything from the bureau since May of last year.

Uzbek (UI8)

I hope you are not bored with another one of these Soviet republics, but then there are several new DXers who are looking for them. If you need Uzbek, listen for UI8AFD who has been found on 14.005 MHz at 1400 UTC working into the western region of the United States. Keeping him company on that band is UI8IF on 14.015 MHz at 0300 UTC, UI8ACP on 14.037 MHz at 1500 UTC, UI8BI on 14.002 at 0100 UTC, and UI8OAA on 14.037 MHz at 0100 UTC.

Listen for UI8DF, who was reported working into the Midwest on 21.017 MHz at 1900 UTC.

All of the above three countries — Kirghiz, Tadzhik and Uzbek — are in the same general area and rather remote and hard to work into.

160 meters

Our source of 160-meter news comes from the *DX News Sheet* — a weekly publication of the RSGB in London. All frequencies are in kilohertz with times UTC.

UM8MAZ	1853	0020
4X4NJ	1850	0035
UT5AB	1851	0300
UB5WCJ	1851	0300
LA1EKO	1846	2125
HZ1AB	1852	2315

The times shown are favorable to Europe, but I thought it best to list them anyway to give you an idea what is going on at the top band. Also soon to arrive on this band will be A4XYB, FR0FLO, VP8ANT and 9K2BE.

John Sharpe, W5AB is in Indonesia for five years and is presently installing a tower and quad for HF and plans to shunt-feed the tower for 160 meters. Look for John signing YB5AES.

Pitcairn Island (VR6)

Ralph Cabanillas, W6IL reports now that Kari Young, VR6KY has been exposed to several DX pileups on her behalf; it looks like she will enjoy it in general. Kari has been reported working Europeans near 14.190 MHz between 0630 and 0730 UTC most days. She also skeds her QSL manager — Stig Lindblom, LA7JO — on the same frequency at 0630 UTC on Sundays, and 7045 kHz at 0530 UTC Wednesdays.

Kari was a radio operator aboard a Norwegian ship in the Pacific and met her husband Brian on one of the several trips to the island during the 1970's. If you desire to send a direct QSL card, send it to P.O. Box 10, Adamstown, PITCAIRN ISLAND, SOUTH PACIFIC. Expect a long delay on your return card, as there is no airmail service to the island.

Ron Wright, ZL1AMO hopes to visit the island soon and informed Tom Christian, VR6TC that he had hoped to get on the next boat to Pitcairn and spend about one month there. Not many ships guarantee to make a stop at Pitcairn, and if the weather is bad they go on to Panama, along with those direct QSL cards to VR6KY. Ron ZL1AMO may be hopeful, but Kay Brown, VR6KB — the nephew of Tom VR6TC — is still in New Zealand with no ship in sight to take him back to Pitcairn.

Lloyd and Iris

The Colvins are on another DXpedition, this time to the Middle East. Lloyd W6KG and Iris W6QL plan to be gone for six months. They were scheduled to begin their DXpedition from Djibouti in early October. Other locations will be announced as their trip progresses.

As in all past DXpeditions taken by Lloyd and Iris, send your QSL cards to The Yasme Foundation, P.O. Box 2025, Castro Valley, CA 94546. Be sure to include one SASE for each QSL card sent. As the duties are farmed out to several different DXers, this could cause a delay on receiving your cards if you had sent only one SASE with several different QSL cards for Lloyd and Iris. Send no SASE at all, and you can expect your return QSL card via the bureau, if at all.

14.100 MHz Beacon Network

John Troster, W6ISQ reports via *The DXer* (Northern California DX Club) the progress of the 14.100 MHz Beacon Network. K6OPO/Beacon is on the air and located in the low hills behind Stanford University. This station transmits every 10 minutes beginning at one minute after the hour and every 10 minutes thereafter.

At the same time, KH6O/B — operating from the Honolulu Community College — will key one minute after K6OPO/B. (Actually, KH6O/B will transmit one and one-half seconds after K6OPO/B finishes.)

Soon 4U1UN/B will begin transmitting in conjunction with K6OPO/B and KH6O/B, but one minute before K6OPO/B. Following the installation of 4U1UN/B, five more beacon stations will be added. They will be JA2IGY, 4X6TU/B, OH2B, CT3B and ZS6DN/B. Each will operate on 14.100 MHz and will key one minute apart in the foregoing sequence. On each transmission, the four nine-second dashes are in order: 100-10-1-0.1 watts. The ID and sign-off are at the 100 watt level. The power levels indicated are RF output.

John reports that Cameron Pierce, K6RU; Dave Leeson, W6QHS; and John Curtis, K6KU have put in prodigious amounts of engineering and construction time along with substantial help from Ron Panton, W6VG and Merle Parten, K6DC on this unique beacon system.

Send all observation reports to Albert Lotze Jr., W6RQ, as he is interested in the relationship of such monitoring reports and all the fuzzy spots and numbers he watches and counts.

Seychelles (S79)

If you have ever wondered how to pronounce this one, say say-shells. This one is always in demand, and fortunately there is much activity from there. One of the active stations is S79MC, who has been reported on several of the bands. Look for him on 14.202 MHz from 1100 UTC, 21.305 MHz from 1800 UTC and 28.545 MHz from 1800 UTC. He has also been reported at 0400 UTC, hanging around 14.225 MHz.

Another active station there is S79WHW, who has been reported on 20 meters near the same frequencies at the same time. He has also been found on 10 meters near 28.628 MHz from 1700 UTC.

S79RD has been working the deserving near 21.280 MHz from 2000 UTC, and we have a report of a S79PD on 14201 MHz at 1100 UTC.

Prefixes

Those J4 stations you might have heard are SV stations in Greece. The special prefix was being used in connection with the European Games. J41MO and J41LS are really SV1MO and SV1LS. Likewise, a J45 would be a SV5 and a J40 would be a SV0.

The Mongolians will be using the special JT6Ø prefix to celebrate 60 years since the People's Revolution. The prefix will be used until 31 December.

1983 International DX Convention

Make plans now to rub shoulders with big guns and little pistol DXers at the 34th Annual International DX Convention. This joint effort of the Northern California and Southern California DX Clubs will take place at the Visalia Holiday Inn at Visalia, California, 22-24 April 1983.

Bill Zachman, W6TPH, the convention general chairman, promises the 1983 affair will be the greatest ever. The three days will feature DXpedition reports, technical presentations, awards, prizes, contests, dining and hospitality room congeniality. Slides, movies and videotapes will abound. Open forums will give everyone an opportunity to speak his or her mind about DXing and contesting.

Program chairmen are Jay and Jan O'Brien, W6GO and K6HHD, of Bora Bora fame. They are at work lining up big DX names to make presentations. They also promise some innovations. One of these: a major effort will be made to avoid two programs running at the same time. Thus, you will be able to attend all the sessions of interest to you.

Many overseas visitors are expected to attend. This is your opportunity to meet your DX friends in person. Manufacturers and distributors will be there, showing the latest in radio gear. The prizes will be major, both in quantity and quality.

Last year's event was sponsored by the Southern California DX Club. This coming event will be hosted by the Northern California DX Club, and the one-upmanship continues in trying to outdo the rival group with a better show.

If you haven't attended the International DX Convention, you owe it to yourself to find out what you've been missing. Some DX old-timers have attended 20 or 30 of these annual conventions. Mark your calendars and plan to attend. For further information, write Northern California DX Club, P.O. Box 608, Menlo Park, CA 94025.

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 Freqency (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".

JANUARY 1983

UTC	AFRI	ASIA	OCEA	EURO	SO AM
0100	19.2	27.6	29.7	9.8	21.1
0200	15.4	22.9	26.8	9.8	18.0
0300	12.0	18.4	23.1	10.2	16.3
0400	12.0	15.2	19.9	8.8	15.0
0500	10.3	13.3	17.2	8.1	13.9
0600	10.2	11.9	15.1	7.6	13.4
0700	10.9	10.8	14.3	9.5	13.8
0800	11.5	10.1	13.7	11.1	14.8
0900	11.6	10.2	12.7	12.6	15.1
1000	11.1	11.2	12.1	12.9	14.0
1100	10.0	11.2	12.7	11.4	11.6
1200	9.0	10.1	12.9	9.7	10.2
1300	9.9	10.1	11.4	9.3	12.4
1400	13.8	8.9	10.5	12.2	18.0
1500	19.0	10.5	13.5	17.3	24.0
1600	23.5	12.3	20.5	21.1	27.6
1700	26.9	11.1	20.3	17.9	28.8
1800	29.8	10.1	20.3	14.5	29.5
1900	28.9	10.6	21.7	11.5	30.3
2000	28.2	13.5	24.1	9.5	30.7
2100	27.5	18.5	26.1	8.8	30.5
2200	26.0	24.0	26.6	9.5	29.9
2300	23.7	28.1	26.7	10.1	28.3
2400	21.6	28.7	27.8	10.4	25.0

Canadian DX Association

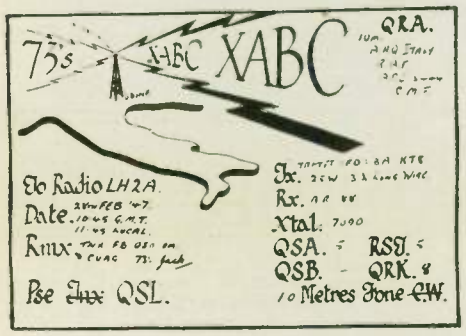
The Canadian DX Association recently elected their officers for this Ontario-based group. Congratulations go to John Sklepkowycz, VE3IPR, president; Martin Rosenthal, VE3MR, vice president; Wilfried Antheunis, VE3FEA, secretary/treasurer; Douglas W.A. Joyce, VE3MV, and John D. Scott, VE3EZU, secretaries; and Garth Hamilton, VE3EUP and Alfred E. Roberts, VE3II, directors.

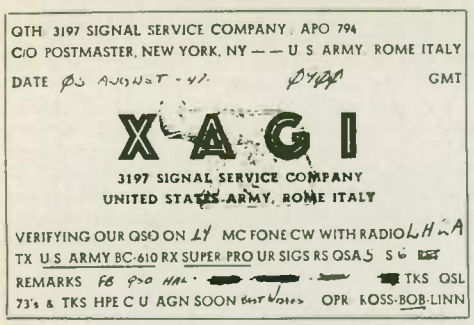
This is not the only DX club in Canada. Don't let the name fool you. Other fine DX clubs that come to mind include the British Columbia DX Club and the Frazer Valley DX Club, both from the western reaches of Canada.

Antique QSL Department

An antique QSL card is not necessarily a card from the spark days. To the brand new Novice operator in junior high school, a card from the 1940's or 1950's can be very old. As in past issues, we have very often used cards from that time period. This is due to the fact that most of the cards submitted are from this period. Most old-timers guard their QSL cards from the 1910's and 1920's and are very hesitant to ship them through the mails.

Halvard Torgersen, LA2AD of Trondheim, Norway — who is a subscriber of **Worldradio** — submitted the following two QSL cards. Both are from the American Forces when they were still in Italy following World War II.





Halvard writes, "The stations worked other amateurs as if they were amateurs themselves. The station LH2A is the University experimental station of which I was chief operator (and still am), but later I got my private call, LA2AD. In **Worldradio** of October 1977, you will find a description of LH2A, only that a printing error says we started in 1964; correct is 1946."

Both cards are for the year 1947. The call XABC was for a 10-meter phone contact earlier that year and the contact with XAGI was made later in the summer. The call XAGI was assigned to the 3197 Signal Service Company in Rome.

QSL information

Bob Isaacs, WA1SMI writes for help in obtaining QSL cards from the following stations for the dates given:

TR8AF	(27 October 1978)
UR2DJ	(02 July 1979)
VE4CF/VE1	(04 August 1979)
VO1LX/4U	(17 August 1979)
C21EF	(15 March 1980)
9X5MH	(14 February 1981)
UK5OBX	(17 October 1981)

Bob, you must be new to working DX. If you had received your QSL card from the last station already, you would have done extremely well. It is not uncommon to wait a year or two from some DX stations. Have you checked with your QSL bureau? Could very well be that some of the cards you are looking for are there, even though you may have sent a direct QSL card with "green stamps."

Recheck your QSL listings for a route and resubmit if you feel it is long overdue. Can anyone help Bob on the above?

QSL routes

A4X1H	—ZS6BZD	S1AB	—DL2NO
A6XAW	—PE1JGR	S1AH	—DL2NO
A71BJ	—G4HNP	S1AS	—DL2NO
AX9NYG	—VK6NE	SM0AGD/ KH1	—SM3CXS
C21RR	—KA6TTC	T31AE	—SM3CXS
C31NP	—EA3BNX	TG9EW	—I0WDX
C30OH	—DL8OH	TR8JD	—F6AJA
CE0ZAD	—WB6WOD	VK9NYG	—VK6NE
CR9AK	—JA1MIN	VK9YB	—KB9UV
CR9BH	—JA1HGY	VK9YC	—G4MBF
CR9BK	—JA1HGY	VK9YE	—VK6NE
CR9M	—JA1HGY	VK0AB	—VK2BRN
CT2EV	—WA3HUP	VK0AN	—VK9NS
DL7NS/HB0	—DL7NS	VP2KBV	—G4ENL
EJ2VJT	—G3ZQS	VR6KY	—LA7JO
EJ2VJU	—G2AKK	W6YB/3D6	—KB7VD
F6FIC/TZ	—F6CRS	XP1AB	—WA2TTI
FG7TD/FS7	—F6AZN	YB0ACI	—WA4RRB
FP0JA	—WB2MSH	ZD9BW	—ZS6UD
GB4GW	—G4LDS	ZF2CZ	—WA3UFI
GW6KQ	—G3XTJ	ZF2DZ	—N3BKZ
HH5CB	—K9WJU	ZL4GF/C	—ZL4KI
HR1JSH	—WB6WOD	ZL4OY/A	—VK3DWJ *(See Note 1)*
HV3SJ	—I0DUD	ZP5XDW	—N4DW
J4OAU	—WA3WIY	3D2RJ	—ZL1BQD
JW1I	—LA4YW	3D2RW	—ZL1AMO
JW9PCA	—LA9PCA	3V8AL	—DL5MBY *(See Note 2)*
K1EF1/VP9	—K1EFI	3V8AM	—DF6RS
KA2GZG/HC8	—KJ2N	4K1G	—UA0UCJ *(See Note 3)*
N7ET/DU6	—N7ET	6Y5IC	—G3XTJ
OD5KV	—9G1JV	9J2JN	—KB2ZP
OH0W	—OH2BAZ	9X5SL	—DL8DF
OY1KH	—W1JTI	9Y50LL	—K2QIE
PJ8DFS	—SM5AQD		
PY0CW	—PY7CW		
PY0ZZ	—PY7ZZ		

C21DM	—P.O. Box 316, REPUBLIC OF NAURU
CR9AN	—Jose Simon, P.O. Box 458, MACAO
EA9KS	—P.O. Box 278, Melilla, SPAIN
FO8IV	—P.O. Box 41, Otepa Hao Island, FRENCH POLYNESIA
HR5MAH	—Mario, Santa Rosa Copan, HONDURAS
J28DM	—P.O. Box 2417, DJIBOUTI
J42KG	—P.O. Box 483, Salonika, GREECE
OH2SX/CT3	—P.O. Box 11, Helsinki 39, FINLAND
P29SM	—P.O. Box 103, Ukarumpa, via Lae, PAPUA NEW GUINEA
VP8ML	—P.O. Box 121, Port Stanley, FALKLAND ISLANDS
VP8NY	—P.O. Box 121, Port Stanley, FALKLAND ISLANDS
VS5HG	—P.O. Box 980, BRUNEI
VS5MK	—P.O. Box 2336, BSB, BRUNEI
VS5TX	—P.O. Box 980, BSB, BRUNEI
WA7QAR/ SV9	—Bob Applonie, Box 571, APO New York, NY 09291
YB4YB	—P.O. Box 61, Bangka Island, INDONESIA
YB5NA	—P.O. Box 72, Pekanbaru, Riau, INDONESIA
YB5OD	—P.O. Box 179, Rumbai, Pekanbura, INDONESIA
YC4YBU	—P.O. Box 76, Bangka Island, INDONESIA
YK1AO	—P.O. Box 245, Damascus, SYRIA
ZD7AL	—P.O. Box 25, ST. HELENA ISLAND
3B8FK	—P.O. Box 1080, Port Lewis, MAURITIUS
5T5ZR	—P.O. Box 2102, Nouakchott, MAURITANIA
7P8CM	—Martin, P.O. Box MS552, Maseru, LESOTHO
8Q7AZ	—Fourwinds, Male, MALDIVE ISLANDS
9V1VP	—P.O. Box 2728, SINGAPORE
9X5WB	—P.O. Box 1, Nyanza, RWANDA

Notes:
1. This is a new manager for ZL4OY/A, replacing the services of ZL1BQD.
2. The call 3V8AL was assigned to two different stations at the same time in error. If you worked Hans (DF6RS) as 3V8AL between 26 August and 3 September of this year, then QSL him via his home call. Hans was assigned 3V8AM later.
3. As for all Soviet stations, QSL cards are to be sent via P.O. Box 88 in Moscow.

Due credit goes to the following amateurs who provided material for this month's column: W6IL, K6FO, W6MUL, WA1SMI, LA2AD, and DU9RG. I would also like to credit several of the DX associations for their newsletters that are received, including that of the Northern California DX Club, the Kansas DX Association and the Stark DX Association.

The editors and their DX newsletters also deserve credit with thanks to *The DX Bulletin* (K1TN), *The Long Island DX Bulletin* (W2IYX), and *DX News Sheet* (G3XTT and G3XTT and G3ZAY).

What countries do you need? I try to select different countries each month to give an idea what is active, but I can base this only on my own feelings of what may be needed. If there is something you need, why not drop me a line, and I will scan the DX bulletins and print it. This is mainly directed at the casual DXer and not the active experienced DXer. You guys have already had that information long before it was printed. Most likely, you were the ones who reported working them to the DX newsletters. The DX season is here and it is too cold to mow the lawn. Keep a listen for that new one. I had better take my own advice and quit fooling around with that 10-10 stuff and get down to DX-ing. GL es 73! de John N6JM. □

KH6IJ worked St. Peter, St. Paul Rocks

Katashi Nose, KH6IJ
Submitted by Rufus McCracken

St. Peter and St. Paul Rocks (about 900 miles northeast of Brazil, in the Atlantic) — PY0SJ and PY0ZSC — were on the past weekend, and I was able to work them on 15 and 40 meters CW.

They were good operators, among whom were Fred Fischer, K8CW; Charles Brady Jr., N4BQW; Stuart Greene, WA2MOE; and Jacinto Rocha Jr., PY2BZD.

— Honolulu Star-Bulletin, HI □

YLRL DX news

The following information was sent to Verline Ferris, KI8V, in letters from overseas YLs.

Vesna Kesic, YU1OKS recently graduated from medical school and is now a doctor. **Christel Deckert, DF1LV** visited Long Island for two weeks (arrived 4 September) and mobiled toward Niagara Falls and Chicago for two weeks after that. **Diana Hughes, G4EZI** and her OM, **Richard G4DZI** traveled to Sweden to visit **Kerstin Bengtsson, SM5EUU.**

Siege P29NSF will soon be selling the cocoa/coconut plantation and moving to Queensland, Australia. She operates 10 and 15 meters (phone) on 21.125 to 21.2 MHz as a Novice, about 15 watts out.

Friedl Meissner, DK6FM and OM, **Guenter DJ2SL** and daughter Evelyn went to the Isle of Mallorca/Spain EA6 7-28 August for a DXpedition. **Kirsti Jenkins, VK9NL** was 9M8 for three weeks in August and September. She is also 5W1DK. She prefers CW.

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Listen to the world of HF with the R70, a 100KHz to 30MHz commercial grade receiver designed by ICOM Incorporated, the leader in advanced receiver design. Built from knowledge gained by designing receivers for commercial, marine, and amateur use, the R70 surpasses other receivers on the market...even receivers costing more than twice as much.

Utilizing ICOM's DFM (Direct Feed Mixer), the R70 is a receiver which in normal usage is virtually immune to intermodulation distortion or cross modulation, yet still maintains superior sensitivity. Whether you are a SWL (short wave listener), Ham (amateur radio operator), maritime operator or commercial user, the R70 provides the features you need.

DESIGN

The R70 incorporates an UP conversion system, utilizing a direct feed mixer proven to be the best design for minimizing interference from strong adjacent signals. A preamp is provided for making the weakest of signals readable. High grade filters in conjunction with the built-in PBT (pass band tuning) system and notch filter, provide the ultimate in interference rejection. Selectable AGC (fast/slow/off), noise blanker (wide or narrow), and tone control improve readability under the worst conditions. An AGC derived squelch, operative in all modes, adds to operating ease.

Dual VFO's with three tuning rates provide quick QSY (frequency change), memory for an important station, or by equalizing the VFO's (A=B), a digital RIT. 13.8 VDC operation is provided as an option, 117 VAC is standard.

HAM'ING

The R70 is an ideal general coverage receiver to complement any ham shack. Use it with your existing tramsmitter or transceiver to provide dual receiver capability.

The R70's built-in monitor system lets you listen to your own transmitted audio and a mute input automatically protects the R70's receiver from your signal.

An option for FM allows listening to the 10 meter FM activity.

As an additional plus to ICOM IC-720A owners, the R70 has an optional interface that will allow the R70 to control the transmit frequency of the 720A for the ultimate in hamming versatility.

SWL'ING

For the short wave listener, the readout section of the R70 gives all the information for logging a station to be returned to at a later time. Frequency, mode, VFO, signal strength are all displayed. A dial lock prevents accidental loss of a signal.

A front mounted speaker provides 3 watts of crisp clear audio. A record jack allows easy attachment of a tape recorder.

ICOM SYSTEM

Like all ICOM HF products, the R70 fits into the ICOM system concept of accessories allowing you to use previously purchased accessories such as the HP1 headphone, SP3 external speaker, and AH1 auto bandswitching antenna.

PRICE

Check with your local ICOM dealer for pricing on the R70. You will be amazed.

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The World System

ICOM America, Inc., 2112-116th Ave NE, Bellevue, WA 98004 **(206)454-8155**/3331 Towerwood Drive, Suite 307, Dallas, TX 75234 **(214)620-2780.**

The ART of Contesting

George Leone, K6SG

If you recall, earlier in this series I mentioned several operating activities that would be fun, feed the competitive spirit, improve operating skills, and maybe lead to station improvement. One other activity comes to mind, and that is working DX and operating skill against everyone else in the pile-up. So let's talk about the station.

First, know the equipment you are operating. Obviously, if it's your own station and you have been operating the equipment on a day-to-day basis, you should know it quite well. Have spare fuses and tubes readily available. For quick band changes, you should have some calibration method which will enable rapid band changing. Some use calibration charts showing dial/knob settings for each band. Another method is to make little arrows from different colored tapes and stick these to the panel, using a different color for each band. Just turn all the knobs to the same color and voila!, you're tuned up on that band. Maybe you don't need anything like that at all. I use my transceiver so much that I can spot the preselector, plate and loading knobs on any band and be close enough for government work, as the saying goes. By the way, if you are having guest ops or you're going to be a guest op someplace, get some operating in at the station before the starting date of the contest.

A lightweight set of good headphones with a boom microphone attached is an invaluable asset for the phone operator. For the CW operator, lightweight phones without the boom microphone will reduce the fatigue level. I never use a speaker during a contest.

Needless to say, an electronic memory keyer is a must for the serious contester. One of the most popular is the Acc-memory keyer described in QST several years ago. You can build or buy, and there are many to choose from. I like a keyer or remote keypad that I can operate with my left hand by pressing the keys down, not forward. With my right hand I operate the key or paddle, write and sip coffee while the memory is sending! My left hand, aside from operating the push buttons or keypad, is also used to tune the receiver. Don't overwork one hand.

Station control functions require some attention. VOX operation on phone and CW is OK, provided it is smooth and rapid. If you happen to have full break-in (QSK) and like it, that's a plus too. Some operators, myself included, like a little quiet while transmitting, so we don't use QSK. And I keep the volume of the CW sidetone down low, too. Receiver volume that is too high or too low can be tiring. My personal preference for transmitter control is push-to-talk (PTT). It's quick and definite, and I can do it with a foot switch or with a key on the keypad.

For the phone operator, one or more tape recorders for calling CQ and sending message exchanges help save the vocal cords. They can be turned on and off from the keypad control, and interlocked through relays and the PTT system, so that you can't have them both on at the same time. This could happen, you know, when you're tired. If you operate all bands, you've got to have facilities to get on these bands. The easiest, and probably the cheapest, is to get a five-band trapped dipole or vertical. You could use an 80-meter dipole with tuned feeders and an antenna tuner and get on all bands down through 10 meters. From here on, I guess it depends upon your desires and wallet. For the man with real estate, towers with rotary and fixed wire beams make up an arsenal that's hard to beat. For the city block dweller, a modest investment in a tower, a tribander and a couple of slopers make a pretty good antenna farm. Impressive scores have been made with multiband verticals and 150-watt transceivers, so don't be dismayed.

If you have more than one antenna, get an antenna switch. Avoid having to screw and unscrew coax connectors every time you change antennas. It also helps to have an antenna tuner if there are serious mismatches. Don't forget to look at the SWR indicator or wattmeter while you're operating. A radical change in reading could indicate you have a problem. Have a dummy load you can switch in with your antenna coax switch, and use it for tuning up. If your antenna rotator requires a switch to be held closed during the rotation period, think about using a foot switch for this function. Use your head and use your feet!

There are any number of things you can do to improve the operation in your station: switching systems for phones, microphones, keying and control circuits; the use of preselectors and audio and CW filters to improve receiver performance; separate or memory VFOs for split operation. You might even consider the use of a computer for the logging and duping functions. If you're going to operate multi-multi, you have the problem of interference between stations. Quarter-wave coax sections (RG-58) cut to the interfering frequency and hung across the receiver input work quite well. You have to take into account the velocity factor in calculating the length.

I'm sure there are a number of things I should mention, but they have slipped my mind and there are, I'm sure, some things in this field of which I'm totally ignorant. In either case, I'm sorry. I've enjoyed writing this series, and I hope you've enjoyed reading it. □

AWARDS

Scott R. Douglas Jr., KB7SB
P.O. Box IARS
Glendale, CA 91206-7609

To start out this month's column, I believe that a discussion regarding the recent PY0 operation to St. Peter and Paul Rocks is in order as the main purpose for the DX effort was to provide contacts with a new location for the acquisition of awards like DXCC, All Nations, CQDX or their level endorsements.

As we all know, this operation was among the worst to ever come up on our bands, which is surprising because the International DX Foundation (IDXF) and LABRE were the sponsors and the American operators were IDXF members.

I have never believed that Amateur Radio operators had the right to demand a specific method of operation from DX-peditioners who paid their money and gave of their effort to gain permission to, and operate from, a locale other than the home QTH. If they only want to work their friends, their own countrymen, in a pileup, on a list, etc., this is their right and it must be remembered that they are under no obligation to the amateur community whatsoever. However, it is not their right to usurp the rights of others or act as though theirs is the only important activity on the bands.

We amateurs have always realized that a measure of detente was required on the bands and that we would have to work together and endure the other's passion for a particular mode or style of operation. The PY0 operation blew that theory out of the water. They went split and used the entire 20-meter band at times for their listening frequencies on SSB, taking up a total of about 160 kc, if you count the transmitting frequency and surrounding areas affected. This curtailed the operating of every other amateur on the 20-meter band not interested in their operation from PY0. When asked to close it up a bit, the request was just ignored and thus an influx of QRM from unhappy folks was the result. Although it was not as bad on other bands, a similar method of operation was used, taking up far more band space then it had a right to, even if it was a "ZA". Perhaps the CW portion of the operation was a bit better.

At one time, the operation was working at a "Q" rate of one per minute, using the whole 20-meter band. This was surely an advertisement for net or list operation which, if properly run, would have satisfied four times as many and allowed everyone else to enjoy their privileges also.

Now to the meat of the subject. Should this contact be allowed as credit toward the awards like DXCC, All Nations and CQDX? Surely the actions of the operation were enough to bring the ARRL's DXCC rule clause #12 into the picture to disallow this operation for credit toward DXCC, and the International Amateur Radio Society (IARS) rule clause #1, and the CQ Magazine clause #7 would cover the same area of objection. I know this idea does not make those who were lucky enough to get this one (me included) very happy; but if we are to allow such an operation to be credited, are we not in effect promoting such actions in the future?

I feel that we must make our opinions heard with the various sponsors of these awards, pro or con, as it is these awards that provide the interest for amateurs to embark on DXpeditions and for other amateurs to break their neck contacting them.

If we turn our eyes from this, are we not saying that no matter how we operate, the contact is the only important thing to us and that we will sacrifice proper decorum and the rights of our fellow amateurs along with the image of Amateur Radio worldwide for the sole joy of increasing our country totals by 1?

I, for one, am willing to lose this "new one" as a down payment on quality Amateur Radio. It will come around again, and the hobby will still be here and so will the rocks. If the demand is there, someone will venture to the spot again and operate in a proper fashion. However, if we turn our backs to it because it would cost us the contact, I believe we will see operations like this again. By making a stand here, we will be telling those who demonstrate a lack of concern for our rights and privileges that such actions will not be tolerated and that such disregard for their fellow amateurs will result in a 0 upon their return and that all will be for naught.

The choice is yours. These award programs exist only because you support them through your participation, and thus the governing of them is determined by the same. Write the sponsors, give your comments, and contribute to the betterment of our achievement awards.

As for the IARS, this will be a topic for the next board meeting and the determination will be announced next month. Let us hope the ARRL and CQ Magazine will also be requested to examine the matter. Let us also hope that the IDXF will in future sponsorings take care to avoid such poor and unethical operations.

If you care to comment to me, I will present your comments here in next month's column. I hope to hear from you, regardless of your opinion.

Buffalo Sesquicentennial

RAWNY (Radio Association of Western New York) offers a special certificate for contact with their club station, W2PE, during the period of 1 April 1982 through 31 March 1983, celebrating Buffalo's 150th birthday. Look for them about 10 kHz above the General band edge on 10-160, and also in the Novice bands. The certificate is a very handsome 8½" × 11", multi-colored on a parchtone bond, and comes complete with genuine "Wooden Nickel."

To acquire yours, send your QSL card along with 25 cents in stamps or coin to: Buffalo 150th ARS, P.O. Box 190, Tonawanda, NY 14151-0190.

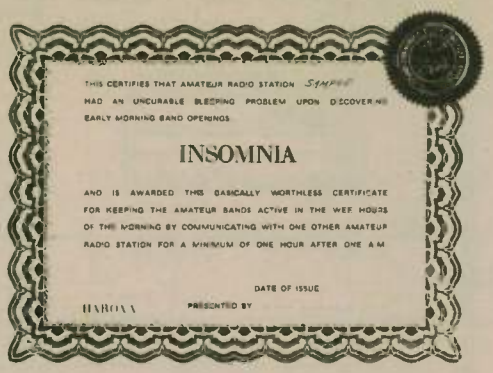
Florida Skip Certificate of Merit

Issued to any amateur upon your request to testify to his/her contribution to Amateur Radio. To have this award sent to one you feel is deserving, send a short letter describing the reason you want it

issued, and include $2 to cover the cost of issuance to: Florida Skip Publications, P.O. Box 501, Miami Springs, FL 33166.

WAHM Award

Issued for confirmed contact with members of the Hamfesters Radio Club, as follows. Illinois amateurs require 10 different confirmations, all others need only five. The club has nets on 21.410 MHz each Sunday at 0200 UTC, and on 146.43 each Monday at 0300 UTC. Send $1 to cover the cost of issuance along with your log extract to: Hamfesters Radio Club, P.O. Box 42792, Chicago, IL 60642.



Insomnia Award

Here is a fun type of certificate for those of you who have nothing to do in the wee small hours and want to earn a conversation piece. Prove communication with any Amateur Radio station for a period of one hour between 1:00 a.m. and 5:00 a.m., and send your certification along with $3 to: HAROAA, P.O. Box 341, Hinckley, OH 44233.

Mid-Michigan Award

This award is available to all licensed amateurs and SWLs for contact with two MMARC club members. DX and Novice applicants require only one contact, and SWLs need hear only one. Send your detailed list showing name, call, QTH and Mid-Michigan Award number (along with $1) to: Gary Lorenz, 3210 No. County Line Rd., Farwell, MI 48622.

Gold Miner Award

This award is available to SWLs and licensed amateurs who show proof of contacting at least three different California "Gold Rush Cities" in the Northern portion of the state. Send your log extract along with $2 to: CHC, P.O. Box IARS, Glendale, CA 91206-7609.

Well, that's all for this month, and I hope you will consider the subject discussed with gravity and act according to your judgement. I hope to receive your comments for the next issue. Till then, 73's and good hunting, Scott. □

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50 years in ARRL

Gar Anderson, K0GA — ARRL vice president and former Dakota Division Director — and Armond Brattland, K6EA/0 — former **Worldradio** columnist ('Novice' and 'The Exchange') — were honored at the convention banquet of 18 September by ARRL President Vic Clark, W4KFC, who presented the two men with 50-year ARRL membership pins.

●●●

A great gift for your overseas amateur friend is a *Worldradio* subscription.

AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX

Annual meetings

Meetings were held in Northern and Southern California with a total attendance between the two meetings of about 100 people.

The DSCS opportunity was discussed and John Browning, W6SP indicated that it is very unlikely a SYNCART-type satellite would be able to fly on this vehicle. AMSAT, however, is working toward putting a Phase III-tape satellite aboard this flight, instead (Phase III-C).

It turns out that much of the hardware for a Phase III package already exists due to the foresight of Jan and Karl who built Phase III-C hardware along with the Phase III-B system.

The IF portions of the Project OSCAR Satellite Development Linear Translator (SDLT) were shown at both meetings along with the 30 MHz × 100 kHz AMSAT Canada IF amplifier.

Jim Eagleson, WB6JNN brought a report on progress, concept, and frequency scheme for the SDLT. **The IHU project** was briefly discussed by John Fail, KL7GRF.

At the southern meeting, Gordon Hardman, ZS1FE brought along slides and commentary on Phase III-A, his participation in building Phase III-B/C, and so forth.

Paul Shuch, N6TX showed slides of the launch of Landsat III (?), which he took at the launch and used the opportunity to point out "missed opportunity." The thrust of his comments were that having hardware built in modular form (i.e. small pieces that can assemble to fit available space and form factors) might allow a certain "head start" when launches of opportunity are identified too late for development of completely new systems. This, of course, is one facet of the SDLT project, and the recent DSCS/Phase III-C opportunity shows its validity in spite of some comments made to the contrary based on early modular approaches (presumably involving Mode A transponders) made by AMSAT.

Obviously, if we had to build a Phase III-C bird from scratch, the DSCS launch would be much less likely! (Which, of course, is why a SYNCART launch aboard this vehicle is not viable, since prototyping is not even done.)

John Pronko, W6XN was nominated by various members of Project OSCAR to run for the AMSAT board of directors. He also was re-elected as president of Project OSCAR. John Browning, W6SP was elected chairman of the board of Project OSCAR. He is now chairman of both the AMSAT and Project OSCAR boards of directors.

Project OSCAR SDLT Project

The following portions of the SDLT have been completed to prototype stage:

1) 2M LNA/BPF (J-FET version); 2) 2M Pre-DRV/BPF (2M Output pre-driver); 3) 30M XFL/IFA/SPL (10.7 MHz LNA/Splitter IF); 4) 70CM Pre-DRV (300mW pre-driver); 5) 70CM DRV (3W driver); 6) 70CM PA (20W power amp); 7) 23CM DCV (1296.3 MHz input converter); 8) 23CM LO (1296.3 and 1269.3 MHz local oscillator); 9) 24CM UCV/PA (1269.3 MHz output converter/PA); and 10) Power supplies and basic control system.

The following supplied the systems listed: Jim Eagleson — 1, 2, 3; Robert Stein, W6NBI — 4, 5, 6; Howard Shuch, N6TX — 7, 8, 9 (Jim Klitzing, WB6MYC — 2W PA); John Pronko, W6XN and Charles Calkins, W7AII — 10. W6XN and WB6JNN have also gotten rack and rack panel/rack box hardware prepared for the various modules.

Stages nearing completion are: 1) 70cm UCV/BPF (435 output converter/filter); 2) 2M UCV/LO (2M output converter/local oscillator); and 3) 30M/30 kHz IFA (Main 30 kHz wide IF amplifier/AGC).

We also have in hand one 30 MHz/100 kHz IF amplifier provided by AMSAT Canada (John Henry, VE2VQ and group) which will be used in the parallel bench, or laboratory, studies of the effects of overload, multi-station IM performance, AGC effects, and mode-related effects on signals passing through a linear translator. It will not be used in the SDLT on-air system due to frequency incompatibility. (It was designed for the original SYNCART proposal, but the SDLT is based on Project OSCAR's original 23CM linear translator.)

SDLT implementation schedule

Unfortunately, the schedule has slipped once again. Earlier in the year, a series of poorly timed business trips by several key individuals blocked out several months of progress since (naturally) they were not concurrent and the absence of "A" held up "B", etc.

This time, some recrystalling of L.O.'s must be made, meaning six to 12 weeks delay in implementing certain portions of the SDLT system. Fortunately, the 1296.3 L.O. is OK and the 2-meter output can be set up with only about a 10-day delay.

WB6JNN/Sinclair ZX81 microcomputer

Though definitely an Analog/RF-type person, Jim Eagleson, WB6JNN is now the proud owner of one of these $99 "almost computers," which he is now using for a variety of TX/RX spurious mixing calculations, noise figure computation, op amp filter design, etc., in addition to general housekeeping.

Since this is perhaps the easiest to obtain and the cheapest machine to buy in many places, developing standards for data exchange, RTTY, ASCII, "Mailbox" and other communication-related uses would seem appropriate. Jim would appreciate any input concerning any of the above. Comments on the Sinclair 16K memory versus other memories (including the Memotech(?) 64K unit) would be appreciated. Write via Project OSCAR or directly to 280 Manfre Road, Watsonville, CA 95076. (Home: (408) 724-2032 (6:00-10:00 p.m.); Work: (408) 427-2248).

ACSB progresses in commercial markets

Dr. Bruce Lusignan of Stanford's Communications Satellite Planning Department (who also gave a talk on ACSB at the 1980 VHF Conference) reports that ACSB is going to compete "head-to-head" with Cellular Radio in at least one major market.

A modified version of ACSB is being used by ITT and California Microwave on their voice links over TVRO satellites. These provide 3,000 to 5,000 channels on a single 30 MHz TVRO channel. Prototype ACSB equipment for amateur use is being evaluated by Project OSCAR's technical committee for Phase III use.

Some questions

1) Considering the broad coverage and 12-hour access of Phase III, do you feel geosynchronous or equatorial drift systems are worthwhile pursuing? Put another way, are the operating alternatives of geo-sync and/or equatorial drift worth the effort to get into such an orbit?

Consider the following differences between the two:

a) 24-hour coverage for days at a time, which allows more flexible scheduling for school use, interlinks, nets, bulletins and "mailbox" operations.

b) Less DX-hunting due to limited (yet significant) population coverage. Allows more ragchew or utilitarian usage.

c) Deeper coverage into the Southern Hemisphere with potential for interlinking part of the passband to Phase III to extend its coverage in the southern areas (especially with a drift orbit).

d) Less Doppler rate-of-change (none in geo-sync).

e) Simple, one-axis tracking (drift orbit) or single-point aiming (geo-sync). Current TVRO dishes can be used.

f) Better emergency potential (especially geo-sync) due to a, b, c and d.

2) How much emphasis do you think we should place on developing other kinds of satellites? What kind? What modes (other than SSB/CW)? What orbit?

3) Have you heard of the recent proposal brought before the FCC for a new TVRO/communications satellite system which will include (as proposed, at least) one 5 GHz/3 GHz (up/down) amateur

The members of the Stanford Research Institute team in the photograph are, from left to right: Roy A. Long, W6YBL; Robert S. Leonard, KD6DG; Robert C. Livingston, KB6LZ; Gilbert M. Roach, W6MXI; Douglas D. Lee, K6TDR; Gary H. Price, W6IRA; Karl E. Lind, KE6D; Howard M. Zeidler, W6WMC; Henry D. Olson, W6GXN.

transponder channel on each of two satellites?

If not, it boils down to this: a) two transponders, one on each of two proposed CATV/TVRO communications satellites located in less than optimum geo-synchronous slots but providing coverage (between them) of North America and parts of South America (though it seems that the beam is set to favor the United States and Canada); b) a new organization called ARNET to oversee operation; c) ARRL participation but apparently no contact (so far) with AMSAT (one of the mysteries of the proposal), 5 GHz/6-foot dish/10W for uplink access (based on FM with, presumably, 30dB SNR or more), 3 GHz downlink with 120° K LNA and a 6-foot dish; d) 10 MHz transponder bandwidth; e) use by other amateur scientific groups (not necessarily licensed . . . another "grey" area) for non-commercial, educational or scientific uses.

Details are being studied by the League and AMSAT, but the request before the FCC is over 500 pages long so that full details may be awhile in coming.

4) Based on the above, do you think gateway linear translator development (part of the Project OSCAR SDLT program) should be stepped up as details indicate that it is warranted? Obviously, many already can receive the downlink, but it is going to be difficult (not to mention expensive) to develop the required 10W uplink power at 5 GHz! Gateway LT's look like a reasonable alternative for many users.

5) Based on your experience with earlier OSCARs, what do you feel were their strengths and weaknesses? Please give details. If we are to improve performance, obviously we must figure out what we must improve! We know, for example, that many felt that OSCAR VI gave better weak signal performance than OSCAR VII, even though VII had a much better noise figure and output power. The RS satellites seem to be better than both. What are *your* observations? Why do you think A is better than B?

6) What do you want in a synchronous or "drift" satellite? What features? How to use?

7) As we enter the evaluation phase of the SDLT system, we would like your inputs to aid us in our development program. Suggestions are welcome.

Send responses to: Jim Eagleson, WB6JNN, Project OSCAR Technical Director, 280 Manfre Rd., Watsonville, CA 95076.

SDLT frequencies

23cm input:	1296.285-315 & 320-330
2M input:	145.035-065 & 070-080
2M output:	145.635-665 & 670-680
70cm output:	435.400-430 & 435-445
24cm output:	1269.285-315 & 320-330

(May be variable to accommodate mode "M" use on Phase III-B)

Get a gift from USQS!

Laryl Berry, KM7Z

'Twas the night before Christmas and all through the house were 13,000 unclaimed QSL cards, 3,000 SASEs and probably a mouse! The mailbox was hung by the door with care, in hopes that the postman soon would be there.

Seasons Greetings from U.S. QSL Service, Inc. (USQS), *the* free domestic bureau. USQS/KM7Z handles cards from any ham station, directed to a USA call sign station. We run entirely on donations and receive no compensation for the work involved. Donations are used to get unclaimed cards delivered.

As a special thanks to our **Worldradio** readers, we make the following Christmas *offer:*

To everyone who puts SASEs on file or sends outgoing cards with a donation via USQS during the month of December, USQS will add one *free SASE* to your file as our gift to you. If you would like to give a gift to your ham friends, send SASEs (at least two) to USQS with their calls and addresses, and you will receive an additional free SASE for your call. Let us hear from all of you this December!

Thank you to all who have made the bureau grow in 1982. It has been a very good year; USQS has got both feet on the ground, getting ready to take some big leaps in 1983. Please help us put the joy of QSLing into every ham shack. Spread the word and use USQS. Following is a small sample of calls for which we have unclaimed cards at USQS/KM7Z, P.O. Box 814, Mulino, OR 97042. Note: SASEs may be purchased, four for $1. Merry Christmas, Happy New Year and Happy Hamming!

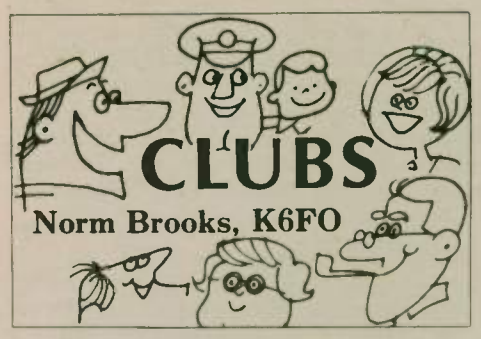
KB1C	WB3CDE	KN6C	K8CC
AG1C	KA3CDQ	KI6C	N8CCP
KA1CAJ	N3CDV	KJ6C	K8CCV
KA1CAK	W3CES	KK6C	N8CDD
WB1CAT	WA3CFC	KS6C	N8CDJ
N1CBJ	WB3CFD	NF6C	N8CDP
N1CBO	KA3CFG	NK6C	N8CDQ
KA1CBO	N3CFQ	AA6C	W8CDX
WD1CBP	KA3CGJ	AD6C	N8CED
K1CC	KA3CHB	AF6C	N8CEN
KA1CCK	NO4C	AJ6C	AE9C
W1CCN	NQ4C	KE6CA	AC9C
WB1CCO	AK4C	WD6CAQ	AF9C
WA1CCR	KQ4C	KE6CB	KC9C
N1CCU	KR4C	W6CB	KN9C
KA1CDB	KW4C	N6CCE	KF9C
KA1CDC	NJ4C	W6CCM	AC9CA
N1CDI	K4CA	KE6CD	W9CAF
W1CDO	WA4CAD	WA6CDB	N9CAP
W1CED	N4CAZ	WD6CEV	N9CAR
AF2C	KB4CB	KE7C	WB9CAS
AK2C	WD4CBA	KQ7C	N9CBH
KJ2C	WA4CBF	NL7C	N9CBM
K2CAB	N4CBQ	WL7C	K9CCL
W2CAP	N4CBR	N7CAC	W9CD
WA2CBB	KP4CC	N7CAE	K9CDB
K2CC	N4CCJ	WB7CAG	N9CDD
WB2CCA	WB4CCX	K7CAI	N9CDP
W2CCI	KB4CD	KA7CAI	N9CED
KD2CD	N4CD	KA7CAJ	KA9CEJ
N2CDC	AC5C	WB7CAO	AG0C
WA2CDD	KE5C	N7CAS	KQ0C
N2CDV	KJ5C	N7CBF	KR0C
WA3CDV	KO5C	N7CBS	K0CA
N2CEH	KQ5C	WA7CBT	N0CAB
KA2CEJ	AA5C	KA7CBV	WD0CAR
N2CEZ	KB5CA	KB7CC	N0CAY
N2CFG	WD5CAQ	N7CCW	N0CBG
KA2CFH	W5CB	AL7CD	N0CBH
N2CFN	N5CDD	K7CD	WD0CCC
KF3C	WA5CBE	WA8C	N0CCL
KI3C	N5CBL	AD8C	N0CCO
N3CAK	KA5CBX	KF8C	K0CCU
N3CBG	KA5CBY	KI8C	K0CD
KA3CBL	KD5CC	KO8C	N0CD
KA3CBO	N5CCU	K8CA	W0CDO
KA3CCG	WD5CDD	WA8CAE	KA0CDP
N3CCW	WB5CDW	W8CAR	KA0CDW
W3CCX	N5CEM	KA8CAX	N0CEK
KA3CDB	N5CEP	N8CBE	W0CET

Theft protection

Bob Wiggins, W6RJL

After the theft of one 2-meter mobile rig, I started looking for inexpensive methods of protecting my mobile equipment. One thing I noticed was how easily the rig could be seen from the outside of the car due to the white trim, knobs, etc. To solve the problem, my XYL made a black cloth cover to fit the front of the rig. A snap allows for quick removal of the cover. Since the dash is mostly black, as is the carpet, the rig is now almost impossible to see from the outside, even during daylight.

— *Fullerton RC, CA* □



Nostalgia

This month s column is going to be pure nostalgia, probably because recent events have brought the past to my attention. I have often thought back to the radio club I belonged to in Cleveland, Ohio during the years 1936 to 1941. That was when I was W8NIC.

As I recall, we had only one club in Cleveland then, called the North East Radio Club. That must have meant the northeastern part of Ohio, because I lived in the southeast part of Cleveland!

Of course, memory dims after 40 to 45 years. Perhaps some of you old-timers in Cleveland can fill me in on the things I have forgotten. I try to recall meetings, and where they were held, and nothing comes back. When I try to recall activities and pleasant memories, what comes back is *Field Day*!

Every Field Day, we tried to outdo other clubs in the QST listings. We even went so far as to set up a dispatching system to turn up certain transmitters and shut down others to qualify for a lower number of transmitters than we actually had. I don't recall that the system was very successful.

I do recall that one member was quite a builder. He was Ray Kacprzak, W8ICS. How could anyone forget a call that was the acronym for International Correspondence Schools? Every Field Day he showed up with a new transmitter for 20 meters (CW, of course). For you young squirts, we used separate transmitters and receivers in those days. I always marveled at his "state of the art" construction projects, which used the latest in transmitting tubes. As for me, I usually provided the rig for 160-meter phone (Amplitude Modulated, of course), which at the time was my favorite band. I once even worked from Cleveland to Chicago — what DX!

What brought on all this nostalgia? It was a catalog from Amateur Electronic Supply. As I thumbed through the pages, I came on a photo of their Cleveland staff — and there was Ray W8ICS. I was about to make a trip to the Cleveland area and made a note to look him up.

Ray hasn't changed much over the years. Of course, he's a little older, but so am I. He brought me up to date on the clubs in the Cleveland area, and there are a lot of them. He even organized one in the area where he lives.

Then, to top off this nostalgia story, I got home and found a letter waiting for me from Milt Weiller, W8RJR. Milt used to live across the street from my father's garage in Cleveland. I worked in the garage during the summers (at little or no pay), and Milt and I would carry on a running dialogue about Amateur Radio. We talked a lot on 160 phone. Milt even sent me a reproduced page from his log dated September 1939.

There are a few other calls I remember from Cleveland in those days. I won't try to list them all for fear of offending those I forgot. But I would appreciate hearing from any of my old buddies in Cleveland.

WV State ARRL Convention

Ted Wolfe, WD4KHL

The West Virginia State ARRL Convention and Hamfest was held Saturday and Sunday, 3-4 July, at the state 4-H Camp at Jackson's Mill, near Weston. Saturday's rain failed to dampen the enthusiasm of those attending.

Vic Clark, W4KFC — the new president of the ARRL — attended, along with Roanoke Division Director and Vice Director Gay Milius, W4UG and John Kannode, N4MM. Clark told those attending the ARRL Forum of proposed changes in the League structure designed to provide more input from the membership.

Newington staffers attending the convention included former West Virginians Pete KB1N and Sally O'Dell, KB1O — both writers for QST.

Among amateurs attending as a group were a number of former West Virginians who gather each Sunday on 20 meters (14.290 MHz) at 1600 UTC/noon EDT on the Hillbilly Net. The Hillbilly Net originated in 1974 as the result of a chance remark during a QSO between Tom Holton, W8YP; N0DR; WB0ITW; and W8KNG. Holton — of Tornado, West Virginia — now serves as the Net Manager.

During the convention, the State Radio Council named West Virginia's Outstanding Amateur of the Year for 1982. He was Jerome (Jerry) Fanucci, K8JF, head of the Department of Aeronautical Engineering at West Virginia University, Morgantown.

Next year will be the 25th state convention, and it will again be held at Jackson's Mill, 2-3 July 1983. Mountain State amateurs hope some of the county hunters who will be coming to Charleston, West Virginia next summer for their national convention beginning 7 July will be able to include the West Virginia Convention in their plans. □

Iowa amateurs invite all to next reunion

Dave Schneider, WD0ENR

Several members of the Mount Pleasant, Iowa Amateur Radio Club were active at the 33rd Annual Midwest Old Threshers Reunion held Labor Day weekend in Mount Pleasant. About 200,000 people attended the event. A guest book was kept at the ham shack and a record 172 amateurs representing 16 states signed in.

The amateurs manned a ham shack on the grounds, provided talk-in on 2-meters for hams attending, and did some operating on the HF bands. Those who worked at the ham shack during the event were Bill Barber, KA0BTE; Randy Balzer, N0AEF: Roy Lewis, WA0KLD: Wilbur Sater, K0CRG; Scott Augsburger, WD0AQC; Don Campbell, W0SWY; Dave Schneider, WD0ENR; and prospective ham Jeff Nichols.

The Old Threshers Reunion is an event with a bit of everything happening. Old steam engines, tractors and cars are on display and in operation. There is a narrow-gauge railroad and a trolley car system on the grounds. And there is entertainment going on at various areas throughout the day.

The Mount Pleasant amateurs invite you to attend next year. The Old Threshers Reunion is held for five days, ending Labor Day each year. Camping is available. □

YOUR LOCAL RADIO CLUB

ALASKA

Borealis Amateur Radio Club
Eielson AFB, Alaska 99702
North Pole Jr./Sr. High School
3rd Friday/monthly - 7:00 p.m.

ARIZONA

Tuscon Repeater Association
P.O. Box 40371, Tucson, AZ 85719
2nd Sat/monthly — 7:30 p.m., Pima Co. Bldg.
Net Thurs 7:30 p.m. 146.22/82 (146.28/88 & 147.69/09)
(602) 747-8903 or 899-4776

CALIFORNIA

Amador County Amateur Radio Club
PO Box 598, Pioneer, CA 95666
Pioneer Elementary School, Pioneer, CA 95666
1st Thursday/monthly - 7:30 p.m.
Talk-in 146.235/146.835

ARALB (Assoc. Radio Amateurs of Long Beach)
1708 E Hill St. Signal Hill, CA 90806
Meets: Signal Hill Comm. Center
1st Friday/monthly

Contra Costa Communications Club WD6EZC/R
Box 661, San Pablo, CA 94806
Meet 2nd Sun. at 9:00 a.m.
Hickory Post Restaurant/Lucky Lanes
Info call Carl KA6OLK (415) 237-2621

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

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

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

Livermore Amateur Radio Klub
2441 Heatherlark Cr., Pleasanton, CA 94566
Meets: Valley Memorial Hospital
Multi-purpose room, Livermore, CA
2nd Friday/monthly - 7:30 p.m.

Mt. Diablo Amateur Radio Club (MDARC)
Grace Presbyterian Church
2100 Tice Valley Road
Walnut Creek, CA 94598
3rd 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

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

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

Santa Cruz County ARC
PO Box 238, Santa Cruz, CA 95061
Last Friday/monthly - 8:00 p.m.
San Fran. Fed. Savings, 1995 41st Ave., Capitola
K6BJ repeater 146.19/146.79

S.C.A.T.S./WB6LRU
S. CA Amateur Transmitting Society
PO Box 1770, Covina, CA 91722
Vine School
1st Monday/monthly - 6:30 p.m.

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

Silverado Amateur Radio Society - (SARS)
Silverado Jr. High School
1133 Coombsville Rd., Napa, CA 94558
Bill Williams. N6EIH - (707) 255-7600
1st Tuesday/monthly - 7:30 p.m.

Simi Settlers ARC (SSARC)
PO Box 3035, Simi Valley, CA 93063
3rd Thursday/monthly - 7:30 p.m.
Bank of A. Levy (across Larwin Sq.)
K3HZP/R 147.765/165 Simplex 147.48

Sonoma County Radio Amateurs, Inc.
Box 116, Santa Rosa, CA 95402
Hank Davis, W6DTV (707) 823-7885
County Office of Emergency Service
1st Wednesday/monthly - 8 p.m. rptr 146.13/73

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

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.

Valley of The Moon Amateur Radio Club
358 Patten St., Sonoma, CA 95476
Darrel Jones, WD6BOR (707) 938-8086 For Info.
Meets: odd months, 2nd Tuesday, 7:30 p.m.. Sonoma
Police Dept.; even mo., 2nd Sun., 11 a.m., bkfst.

Ventura County Amateur Radio Club
Oxnard Community Center
Camarillo Room
900 Hobson Way, Oxnard, CA
2nd Friday - 7:30 p.m.

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

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

Greater Titusville Amateur Radio Club
c/o W.R. Young, N4DQT, 3845 Catalina St.
Titusville, FL 32780 • Repeater 146.31/91
3rd Monday/monthly - 7:30 p.m.
Chamber of Commerce Bldg.

Indian River Amateur Radio Club
PO 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.

Sarasota Amateur Radio Assoc., Inc.
Sarasota Co. Admin. Ctr.
US301 & Ringling Blvd. - 6th fl. lounge
President:"O.W." Lander N4FCF
3rd Tuesday/monthly - 8:00 p.m.

GEORGIA

Gwinnett Amateur Radio Society
Red Cross Center
Hi Hope Rode, Lawrenceville, GA
147.87/27 for Talkin/Info.
3rd Thursday/monthly - 7:30 p.m.

HAWAII

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

ILLINOIS

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

Radio Amateur Megacycle Society
Irvingwood Acacia Church
3900 N. Plainfield, Chicago, IL 60634
(312) 625-2879
3rd Friday/monthly - 8:00 p.m.

Tri-Town Radio Amateur Club
PO Box 302, Hazelcrest, IL 60429
Above Hazelcrest Police Station
1st & 3rd Friday/monthly - 8 p.m. (except July & Aug)
Net every Wed. 8 p.m./146.49 MHz

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

Wheaton Community Radio Amateurs (WCRA)
College of DuPage, Room 2061
Glen Ellyn, IL 60137
1st Friday/monthly - 7:30 p.m.

INDIANA

Allen Co. Amateur Radio Tech'l Society, Inc.
PO Box 10342, Ft. Wayne, IN 46851
Allen-Wells Charter 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
PO Box 15127, Fort Wayne, IN 46885
The Salem Church
3rd Friday/monthly - 7:30 p.m.

IOWA

Muscatine Amateur Radio Club
Info: Bruce Dagel, WB0GAG (319) 264-3320
Meets: Basement Meet. Rm., Public Safety Bldg.
Muscatine, IA
1st Monday/monthly - 7:30 p.m.

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

Sooland Repeater Association (SRA)
KD Stockyards Station
2001 Leech, Sioux City, IA
Classes Thursdays 7-9:30 p.m., Sept-May
Club meets 3rd Tue. 7:30 p.m.

MARYLAND

Frederick Amateur Radio Club
Frederick Electronics
Vernon Simmons, KA3CVD
(301) 371-5735 after 1800 except Thur.
2nd Tuesday/monthly - 2000

MASSACHUSETTS

Billerica Amateur Radio Society (BARS)
Honeywell Systems Division
300 Concord Road
Billerica, MA 01821
1st Wednesday/monthly - 7:30 p.m.

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

MICHIGAN

The Eastern Mich. ARC (EMARC)
St. Clair County Comm. College
Student Center Building (Cafeteria)
Port Huron, MI (313) 364-9640
1st Tuesday/monthly - 7:30 p.m.

MISSOURI

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

NEW JERSEY

Gloucester 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 YORK

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

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.

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

Long Island Mobile Amateur Radio Club (LIMARC)
146.25/85, 147.975/375, 223.22/.224 .82, 444.125/449.125
Membership: Jerry Kamen, K2QXH, 44 Robin Lane, Levittown, 11756 Net every Mon. 8:30 p.m. 146.25/85
Meets 1st Tues/8 p.m., H.B. Thompson, JHS, Syosset

Suffolk County Radio Club
Meets 1st Tues. monthly, 8 p.m.
Bohemia Recreation Center
Smithtown Ave., Bohemia, Long Island
More info! Jim Heacock, KA2LCC, (516) 473-7529

NEW HAMPSHIRE

Great Bay Amateur Radio Assoc.
Airex — Tel. 742-3703
Route #16, Dover, NH 03820
2nd Sunday/monthly - 7:00 p.m.

NORTH CAROLINA

Wayne County Amateur Radio Assoc., K4CYP
PO Box 1578
Goldsboro, NC 27530
MGN Regency-Uptown
3rd Saturday/monthly - 8:00 a.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)
Ervin Ramaley, KA8CAS, Secretary
2nd Tuesday/monthly - 7:30 p.m.
Community Rm., City Building, Clyde, OH
Repeaer 144.75/145.35

Champaign-Logan A.R.C., W8EBG/R
Joe Palmer, KS8M, President
2 Meter Net, 147.60/00, Tuesdays, 8:30 p.m.
Dinner Meeting, 1st Thursday/monthly
Dajolees Restaurant, West Liberty, OH, 7 p.m.

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

OREGON

Oregon Tualatin Valley ARC
Portland General Electric Auditorium
14655 S.W. Old Scholls Ferry Road
Beaverton, OR 97005
3rd Wednesday/monthly - 7:00 p.m.

SOUTH CAROLINA

Keowee-Toxaway A.R.C. (Seneca/Walhalla)
147.87/147.27 WA4JRJ/R
Seneca Police Dept. Bldg.
Call Hum Walker, S/T, KD4WL (803/882-0471)
3rd Tuesday/monthly - 7:30 p.m.

TENNESSEE

Lakeway Amateur Radio Club
Randy Hall, Activities Mgr.
Box 1636, Morristown, TN 37814
State Area Vocational School
Last Thursday/monthly - 7:30 p.m.

TEXAS

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

Houston Amateur Radio Club, W5DPA
7011 Lozier Street
Houstin, TX 77021
(713) 747-5073
Fridays weekly - 7:30 p.m.

UTAH

Utah Amateur Radio Club (UARC)
Room 161, Murray High Sch., 5300 S. State
Gordon R. Smith, K7HFV
582-2438/talk-in 16/76
1st Thursday/monthly - 7:30 p.m.

VIRGINIA

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

WISCONSIN

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

WEST VIRGINIA

Jackson County Amateur Radio Club, Inc.
First National Bank of Ripley, WV
1st Thursday/monthly - 7:30 p.m.

Seven members of the Central New Jersey Chapter No. 138, QCWA are shown here holding anniversary certificates, which were presented by the Chapter President Charles Gspann, W2ZEE. All the men received either the Golden Anniversary and/or the 50-Year Continuously Licensed Certificates, except Bob Dobbins, WD2AHT who received the 60th Anniversary Golden Certificate. The members are, from left to right: Ira Meyers, W2SVJ; Harry Landau, W2IX; Ellis Emery, W2EHN; Phil Petersen, W2DME; WD2AHT; Millard Timm, KA2JUG; and Don Brown, W2EAM. Al Dabb, W2CAY also received a certificate in absentia. W2IX is Chapter Vice President; W2DME is Net Manager. ***(Photo by Sam Yother, W2ENM)***

Phong Nguyen, an electrical engineering major at Palomar College, is the recipient of the 1982-1983 William J. Gilmour Scholarship. This award is presented annually to an outstanding student majoring in electronics or computer science by the Palomar Amateur Radio Club. ***(Photo by Jane Rice, AD6Z)***

Scholarship awarded

Emily Wolfe, WA6ZKC

Phong Thien Nguyen, a second-year student majoring in electrical engineering at Palomar College (California), is the 1982-1983 recipient of the William J. Gilmour Scholarship.

Phong fled from his native homeland of Vietnam in 1977 and spent a year in a refugee camp in Malaysia. He came to the United States in 1978 under the sponsorship of an older brother who resides in Escondido, California. Phong plans to transfer to San Diego State University after completing studies at Palomar College and obtain a degree in electrical engineering.

The $200 scholarship was created in 1980 by the Palomar Amateur Radio Club in memory of "Bill" Gilmour, W6VTV for students majoring in electronics or computer science. It is funded primarily by SANDARC (San Diego Amateur Radio Council). □

ARRL Foundation announces awards

The officers and directors of the ARRL Foundation take pride in announcing the recipients of two awards for the 1982-83 academic year. The Long Island School Scholarship, for youths attending Long Island colleges or universities, has been granted to Paul Michael Silverman, KA2DSP of Levittown, New York. Paul enters State University of New York at Farmingdale in September to pursue courses in electronics technology. The $250 ARRL Foundation-administered award is given to this young man for demonstrated interest and excellence in promoting Amateur Radio and for aspiring to an electronics career.

The YL ISSB Memorial Scholarship has been awarded, for the second successive year, to Larry Edwin Smith Jr., WB9UKE. The awarding of $709 to Larry concludes the ARRL Foundation's administration of this scholarship fund for YL ISSB. Larry pursues associate and bachelor's degrees in electronics engineering, aspires to a career with NASA communications, holds amateur Extra and 2nd Class commercial licenses, has maintained an A academic average, and has been very active in extracurricular activities at Vincennes University.

ARRL Foundation-administered scholarships are open to all applicants; qualifications and specific criteria are reviewed by screening boards consisting of ARRL Foundation officers, directors and panels provided by sponsoring organizations. Application closing date is 1 May 1983 for the next academic year. Please address all inquiries to Andrea T. Parker, K1WLX, Secretary ARRL Foundation at 225 Main Street, Newington, CT 06111. □

Michigan SET

Submitted by Sherman Goldman, K8LUY

Eleven amateurs took part in the Simulated Emergency Test (SET) held Saturday, 16 October, in Southfield, Michigan. Twenty-eight messages were handled, including contacts with state capital, Lansing, (Gerald Young Jr., K8GWW) and Pontiac, Oakland County (Jim Wades, WB8SIW).

Operation lasted from 11:00 a.m. to 3:30 p.m. and was held on 2-meter and 75-meter phone and on 80-meter CW. □

Two meters aboard

For the past several issues, we have explored maritime mobile operation on high frequency bands. Now let's explore the fascinating world of operating 2 meters aboard your boat.

Portables

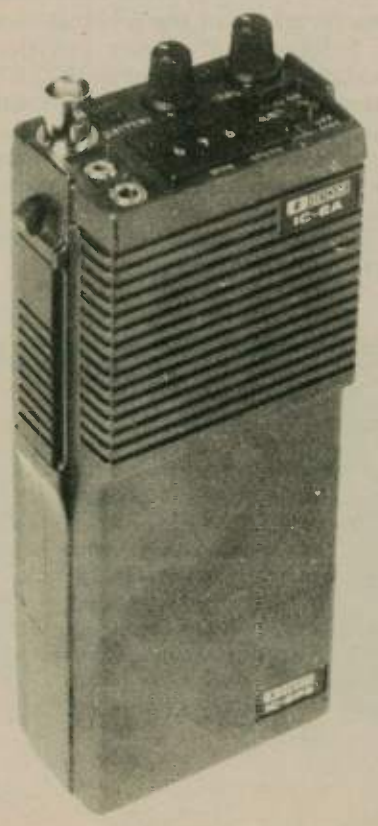
Your small hand-held will work wonders on the water. It won't work worth a darn under the water, so make sure you attach the optional wrist strap before you set sail. If you carry your hand-held on your belt, double check your belt clip assembly and add a nylon "life-line" in case you accidentally break the clip off. Most boats are narrow, and there are many things just waiting to grab your unit from your belt or hand and toss it into the drink.

In the unlikely event your hand-held goes swimming, immediately try and retrieve it. If it was turned off, all the better. If it was turned on when it went under, it may be doomed.

Open up the dunked unit and remove the batteries. Set them aside for normal drying.

Now resubmerge your dunked radio in fresh water. Make sure the water is clean. Slosh it around for approximately 30 seconds, and then take it out. At the same time, wipe the tears from your eyes from having to dunk the unit for the second time.

Gently shake the water out of your radio equipment and prepare to dry it. Since you are aboard a boat, chances are that you won't find a hair dryer or the AC to power it handy. This means the oven.



Take along your HT on the next trip.

Unlike a cake at 400 degrees for 20 minutes, we are looking more at "warm" or 100 degrees for about 15 minutes — leaving the door open! If no oven is available, open up the rig and let the sun dry it out.

Results? A survival rate greater than you might think! I have personally operated seven out of 10 rigs dropped overboard if the rigs were turned off. That's right, after the batteries were reinstalled, the radio worked fine — and even better after the speaker dried out.

If the radio was turned on, only one out of 10 may operate. However, it's better than throwing the rig away or not diving in after it.

Equipment considerations

Most mariners will first try their hand-held sets and be amazed at the extra long range they have to local repeaters. For even better results, consider taking along your mobile unit. You will find that 25 watts of power from a mobile works dandy up to about 80 miles out. Use the same power source that runs your marine VHF to power your 2-meter VHF.

Antenna considerations

For your portable units, the rubber duck antenna works okay. Those telescopic base-loaded antennas work even better. You can even screw on a Metz 4-foot mobile antenna for an unbeatable signal in remote areas or while backpacking on unchartered islands.

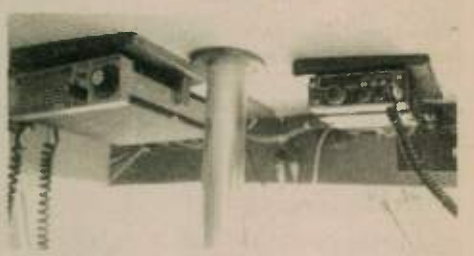
Your regular shipboard VHF antenna works quite nicely at 146 MHz. I know, I know, there is a 10 MHz difference between where you want to operate it and

Mobile Metz on a hand-held!

where it is tuned. It still works fine.

Your solid-state radio will compensate for the slight mismatch. You may notice that your power output meter on your mobile rig is not reading quite as high as it normally does. However, despite the slightly lower power output from your power amplifier circuit, you will find that the sheer height and gain of your marine VHF antenna will do wonders with your hand-held or mobile unit.

The easiest way to connect your rig to your marine VHF antenna is to disconnect the connector at the marine radio. Now connect the connector to your ham rig. You are on the air. But what happens when you key up your marine VHF radio without an antenna? Will you blow the finals? Rarely. Today's modern VHF marine radio is fully protected against no-antenna conditions and, like your ham rig, will automatically reduce power into the no-load condition. No, you won't burn it up.



VHF marine and ham set in the overhead

A more elaborate antenna system would be the manual coaxial switch and two patch cables. The antenna lead goes to the switch "common" post. Jumper No. 1 goes to your marine VHF radio, and jumper No. 2 goes to your VHF ham set — portable or mobile.

The switch will work well up to 50 watts output maximum, obtainable in the Kenwood 7950. Any more power from a 2-meter set or amplifier into the switch might damage your marine VHF. Too much power might build up sufficient voltage and current on the other side of the switch to lunch your marine VHF set.

Grounding requirements

Usually none. Since the marine VHF antenna is "coaxial" by nature, no further groundplane is necessary. However, I prefer to ground all radio equipment to the ship's ground to reduce stray RF from getting into your wind or speed equipment.

Range

A regular phenomena called tropospheric ducting will give you some incred-

ible range when using VHF on the water. At approximately the 30-foot level, a warm air mass will form on warm windless days. The cool water keeps the temperature boundary below the warm air cooler. A natural decrease in temperature above the warm air mass sandwiches this "inversion" into a 40 or 50-foot-high tube. As long as the other station is within this same tube, chances are your range may exceed 100 to 200 miles. It's quite common in southern waters to receive reports of two Amateur Radio operators communicating, on simplex, 300 miles apart. Both stations must be in the duct, and usually a high pressure system is in between them.

Next time you cruise, plan to take along your 2-meter equipment for some exciting operating on the water.

And for those of you who operate 2 meters but not the low bands because you don't have a General license, don't forget my special mariners General Class tape course. Five 90-minute cassettes will take you from 5 wpm up to passing the General Class code exam at 13 wpm. These tapes have been especially prepared for mariners, and all you have to do is listen and write. There are even portions of the tape that require no writing when you are on watch.

Drop me a note at my Callbook address for more details. It is 2414 College Drive, Costa Mesa, CA 92626.

Good cruising, and see you next month.

Cover connections with coaxial sealant to keep water out.

Don't forget your DC charger cord before you set sail!

Gordon West code tapes

He's catching up fast

Bill Diamond, WA0AOJ

I noted with interest the article on the 10-year-old amateur on page 11 (September '82 issue).

My own son, Bob KA0NSM (13 years old), received his Novice ticket on 1 May 1982, his Technician on 23 June, General on 17 August, and his Advanced on 21 September.

I upgraded to Extra by necessity, otherwise Bob would have probably beat me to it. Hi. He signed up to take the Extra exam on 21 October 1982.

Long time, no sea

C. Steve Schultz, W0CHJ

Recently, I was tuning around 7.040 and heard a CQ, so answered. It was Jack Zuzula, K2GWN. During the course of the QSO we discovered that 38 years ago we were both radio operators in the Navy (U.S., that is) and Jack reported for duty at Navy Radio NDJ, Kwajalein Island. I was deck supervisor of the radio shack and assigned him to a circuit. Soon after that I was reassigned. We hadn't heard from one another until that chance meeting on 40 CW.

By the way, Jack is the manager of the "Hit and Bounce Net," 7.040 every morning at 7:30 our time (CST). If you want to hear a top CW operator run a smooth CW net, listen to the "Hit and Bounce Net." It's music to my ears!

— *Kansas Amateur Radio* □

Unusual QSO

Al Cook, WD8PYB

It all started on 1 March 1979, when I was working 10 meters CW and called CQ, and back comes KA7AIG, located in Lynnwood, Washington.

I gave my name as "Al," rig a Kenwood 820S. He came back with his name as Al, rig a Kenwood 820S.

On the next go-round, I said I was a carpenter by trade and gave him my age. Back he came with the same age and a carpenter by trade!

I said, "My antenna is a Wilson six-element tri-bander." He replied, "My antenna is a Wilson tri-bander."

About this time, I thought I was in the Twilight Zone!

A few days later, in came his QSL card and I really got an odd feeling when I looked at his last name — "COOK!" Through some strange quirk of radio, had I been talking to myself?

No, not true since we have both been hooked up with each other and run several QSOs since, but that sure was an unusual QSO, don't you think?

— *Triple States RAC BNT, OH* □

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

Happy Holidays

At this time of the year, it is common to wish everyone a very Merry Christmas and a Happy New Year. Those of us involved with the voluntary work of the HAPPY FLYERS sincerely wish that to each of you. I, personally, wish to thank again all of you who have done so much and shared so much through the years. It has been a cooperative effort that has made all gains possible.

At last count, we have been told of 26 lives that were probably saved by volunteers who used equipment or techniques shared with them by members of the HAPPY FLYERS. I personally have never been the one to save a life in search and rescue, but every time I remember the little girl saved by Grady Gaylord (who I had trained and helped install the DF he used), I get a very warm feeling. The nostalgia associated with the holidays, always seems to remind me of that little girl — the only survivor of the crash.

Thanks to each of you — in every organization — and privately, for all the many hours of volunteer work you do. People try to say that the day of the volunteer is ending. Luckily, this is not true in SAR (search and rescue). Almost all SAR is done by volunteers. They are not only unpaid, but often unthanked! Thanks, from all of us.

Amateur heads S/W Section 99s

The "99s" is the name of the International Organization of Women Pilots. Amelia Earhart sent letters to all licensed women pilots years ago and 99 of them responded (hence, the present name). It has grown to be one of the largest women's organizations in the world.

As I understand it, the Southwest Section of the 99s is the largest in the world. At the fall section meeting, Carol Clarke, KA7ANV became governor. We were very proud to see her take over the leadership of such a fine organization for the coming term.

Carol is not only an active Amateur Radio operator, but a very active pilot. She was the Southwest Section Woman Pilot of the Year in 1979. This was interesting at the time, since Janie Postlethwaite, WB6ODQ had been the 1978 Woman Pilot of the Year. This meant that two amateurs in a row had won this coveted award. With no small amount of pride, I feel that it shows what kind of material our ham pilots are made of. We know she will do well.

It might be well to encourage any present or prospective woman pilot, to seek out your local 99s chapter. It can mean a lot to you to share the same desires and problems. Often they can assist you in getting the best help and/or price for your lessons, rentals, etc. There is no substitute for encouragement, especially when involved in something new.

Continuing DF information

Last month we covered a number of commercial DF conceptual errors. If you missed it, please get a copy of the November Worldradio and read it. The introduction is important prior to reading this article, since it explains some premises that must be understood for the following to be clear. We are not intending to pick on any brand or system — only to look at the facts involved in DF work, and the many misconceptions that have developed and been propagated.

As I studied many of the DF manuals in my large collection, I could see that this month's column was going to be more difficult. We do not wish to identify units — only concepts; however, this becomes difficult when addressing unique situations. Remember, *ALL* DF units will work within their design limitations. What you wish to do and the circumstances surrounding your needs — both contribute heavily to your selection of a DF unit.

Remember, the number one test of a VHF/UHF DF system or method is its response to attempts to DF known targets. All the rhetoric in the world falls apart when one is unable to reliably point in the direction of a known target, or gain enough information to eventually lead them to a target.

Last month we covered the difference in signal strength in a signal 50 miles away. With one antenna "one inch closer," the figure is one part in 3,168,000. It is interesting to find so many of the DF units speak of things like: "For DF operation, it is important to accurately see the difference in signal strength between the left and right antenna since this is where we get our directional information." Another unit says it is: "unlike similar looking systems, such as the L-Per or HAPPY FLYERS. The . . . system does not use antenna pattern for DFing. Any pattern that may exist is accidental and in no way contributes to the operation. Instead, information is extracted from the relative phase of the signals at the two antennas." A third system states: "The direction-finder is essentially an interferometer that resolves the phase difference between signals arriving at two antennas placed perpendicular to the line of flight on an aircraft."

An examination of the schematics of most of the simple DF units available will reveal that they are essentially DC switching devices. The square wave, or triangle wave DC that is used to switch with, creates a reaction in the associated receiver. Without attempting a deep technical dissertation, they are all DFing by what they do with the noise pulses. Some brands use the amplitude associated with the pulses to drive a differential amplifier (which in turn drives a left/right meter, audio tone, LED, etc.). Others will look at the relative phase difference of the pulses. We have written about this many times.

The RF processing that is accomplished is a process of the receiver used in conjunction with the DF. The design of that receiver can play a major portion in the way any DF hooked to it will function. Some are very broad and can "hear" things not on the desired frequency. The RC time constants within the receiver can also affect the DF operation, especially when they relate to the "switch frequency." Antenna patterns that result from DC switching of VHF/UHF antennas, do affect what happens to signals going down the RF/IF strip.

I have run out of space again. The most interesting and continuous conceptual error put forth in the many manuals I have read is the fact that they all speak of the *signal* you are DFing. All concepts seem to revolve around there being *one* signal you seek. The real truth is that you really seek *one answer,* but at VHF/UHF frequencies, there is usually more than just one signal path arriving at the DF.

We cannot overstress the value of practicing on known transmitters, no matter which type DF you plan to use. They can all work, as long as you understand the information they present to you, their limitations and their strengths. □

Houston ham show a big success

Houston Comvention 82, held 1-3 October, had 2,000+ in attendance, again breaking previous records. This year, 56 commercial exhibit booths were taken, continuing the growth pattern of the most dynamic ham show in the country.

The DX program included Dr. Vince Thompson, K5VT; Carl Henson, WB4ZNH; Terry Baxter, N6CW; Bill Poellmitz, K1MM; and George Wagner, K5KG, rivaling any of the major DX gatherings.

The banquet speaker — Dr. Tony England, WØORE, NASA astronaut — announced that plans were in the final approval stages to carry an Amateur Radio Experiments Package aboard Shuttle Mission 9 with Owen Garriot, W5LFL. Comvention 82 was the warmup for the 1983 ARRL National, to be held in Houston, 6-8 October. □

MILITARY AFFILIATE RADIO SYSTEM

MARS

US ARMY ★ NAVY-MARINE CORPS ★ AIR FORCE

Vern Hansen, AAA9W WB6UWQ

The following article appeared in the September 1982 edition of the Western Area Army MARS Bulletin, and was written and prepared by Jim Haley, AAR9HN/W6NH.

Thomas T. Bohnsack, AAR9FM/W6PEQ was appointed Central California State Army MARS Director, effective 1 August 1982. Tom succeeds Joe Caswell, AAR9FV/WB6JXP, who served as CeCal SMD for a total of 12 years. Our congratulations to Tom . . . and a Very Well Done to Joe!

Tom has been an Army MARS member for the last 18 years. Previously, when he was a resident of Florida, he belonged to Air Force MARS. Tom is on the threshold of having been a licensed amateur for 50 years. He was first licensed in October 1932, at the age of 18. (Tom is a member of QCWA.) He has held amateur calls in four different call sign districts; in addition to his present FCC call W6PEQ, Tom has been licensed as W4SSP, W2RVC and W9PEQ. Tom holds the Advanced Class amateur license, and he holds an FCC commercial license as Radiotelephone Operator Second Class.

A highly proficient (and productive) radio technician, Tom has contributed significantly to the success of the CeCal and Western Area Army MARS programs by giving freely of his time in work on the station equipment at the HF/MARS Gateway Station AAA9USA/W6USA and on the East Bay Hills 2-meter repeater. For example, he is the member responsible for the healthy signal that AAA9USA puts on 2220 kHz. This excellent frequency (from both the standpoints of propagation and lack of interference) was available to the WAM program, but not usable due to equipment limitations at the Presidio station. Tom succeeded in extensively modifying a former Navy transmitter for use on 2220 by AAA9USA.

Among Tom's other MARS activities have been serving for 13 years as NCS of AAR9FM/A — a very successful and popular HF SSB traffic and training net. Tom has contributed some excellent technical material to the Western Area Army MARS Bulletin, including an article on the modification of the RF403 to all solid-state, and another on the modification of a RTTY tape distributor as a CW identifier using punched tape.

Tom's areas of interest in Amateur Radio center on equipment construction and traffic handling. He is active on phone on the 75, 40, 20, 15 and 2-meter ham bands. For fixed-station HF operation, Tom uses a Drake TR-4, a Swan Mark II linear and a Collins URC-32. For receivers, Tom has a Collins 75S-1 and a Collins R390A. His antennas are a 75-40 meter doublet and a KLM KT34A 20-15-10 meter beam. For VHF fixed-station activities, he uses an RF403 and a Midland 13-510A. For HF mobile operation, he uses an Alda 103, and on VHF mobile he works with a Kenwood 7200. For RTTY operating, he has a Model 28KSR and a Model 28 ASR.

Born in Chicago, Tom attended the Illinois Institute of Technology in that city, studying radio engineering — the profession he practiced throughout his career. Several years ago, Tom retired as a senior engineer from the Western Electric Company after a solid 35 years with that firm. For 18 of those years, Tom was assigned by Western Electric to work with the Air Force and the Navy as an electronic field engineer. During the World War II and Korean War eras, this work included some interesting and adventuresome assignments. While with the Navy, he served on Manus Island, Guadalcanal, New Guinea and Leyte. His service with the Air Force included a tour in England.

In 1935, Tom married Lucille Abraham, also of Chicago. They have two sons, Richard and James, and one daughter, Judith. There are a total of five grandchildren ranging from 10 years to 15 years of age. Tom and Lucille reside in Los Altos, California. Other than Amateur Radio, Tom's main recreational pursuit is the game of golf. □

Region Training Manager report

The Region 6 Training Manager advised that Robert Nelson, Jr., AFA6NE and Judith Inman, AFA6ZX have completed training. He also reports that the training supplement has been rewritten in accordance with the operation and training guide and has been disseminated to the State MARS Directors for distribution. □

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Contact Worldradio for hamfest prizes.

Fred Bonavita, W5QJM

Sam Neal, N5AF of Cleveland, Texas headed a team which has been named the latest recipient of the Texas Traveling Trophy (TTT), a special award intended to promote low-power operating in selected contests by stations in Texas.

In announcing the win, organizers of the trophy — a loosely knit group in the Austin area — said TTT will be expanded for contests beginning in 1983 and will be available to QRP stations in other states as well.

Neal was presented the TTT at the ARRL West Gulf Convention in Houston, where it was surrendered by its previous recipient, Ed Manuel, N5EM of Houston. Neal's team — which included Dave Evans, K5SOR; Jack Bryant, W5TFB; and Larry Odom, K5EJA; among others — racked up the highest point total among Texas-based QRP stations in last summer's ARRL Field Day contest and which entered the TTT competition.

With a point total boosted by the use of solar panels, the N5AF contesters nosed out an aggressive team headed by Alan Brown, K5MW from College Station — last year's Field Day winners of TTT.

TTT was introduced almost two years ago as a means of encouraging QRP stations in Texas to enter various contests, including Field Day, the QRP ARCI spring and fall QSO parties, and others. If a station wins it three times, it gets to keep the handsome plaque.

Beginning in 1983, however, the availability of TTT will be extended to low-power stations operating anywhere within the 5th U.S. call district plus Arizona, its sponsors say. Other contests will be added to the list of those for which the trophy is up for grabs.

Sponsors said they were unable to offer the TTT outside the Southwest at this time but will consider extending the coverage area if there is sufficient interest. The main purpose of the award is to encourage QRP operating on a regional level, they said, and others could sponsor similar awards in other parts of the country.

Full details on TTT are available for an SASE to Box 12072, Capitol Station, Austin, TX 78711.

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Ed Popp, K5BOT of Austin, Texas is the new president of QRP Amateur Radio Club International, succeeding Thom Davis, K8IF of Livonia, Michigan, who resigned after more than three years in office.

Popp, the former vice president, will also head the club's board of directors. He praised Davis' achievements as president, saying he was responsible for abolition of the old 50-watt power pledge as a condition of membership, increased the number of nets, helped improve the *QRP Quarterly* and was instrumental in getting the World QRP Federation off the ground.

Davis said his tenure had been "rewarding and exciting" but not without a few headaches. He said the press of his personal life and business prompted him to resign.

"Please support (Ed) and help him as you have helped me," he asked.

•

Well-known international QRPer Chris Page, G4BUE is among four new members of the QRP ARCI board of directors as the result of recent balloting by the membership. Page is the first non-U.S. member of the club and was elected for a term expiring 31 December 1985.

Sam Neal, N5AF (center) holds the Texas Traveling Trophy after receiving it from Ed Manuel, N5EM (left) while Fred Bonavita, W5QJM looks on. ***(Albert Delaney, KC5EV photo)***

Others newly elected to the board are Gary Beam, WA9WZV/4; Bill Harding, K4AHK; and Bill Welsh, W6DDB, while Red Reynolds, K5VOL and Ed Lappi, WD4LOO, were re-elected. The membership also voted its first lifetime appointment to the board for the club's founder, Harry Blomquist, K6JSS, who holds QRP ARCI No. 1.

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The first copies of the Britain-based G-QRP Club's circuit reprints have shown up on this side of The Pond, and they are a fine addition to any QRPer's bookshelf and/or workbench. George Dobbs, G3RJV has gone through several years' issues of SPRAT — the club's outstanding quarterly newsletter which he edits — and has picked out a fine assortment of articles on low-power equipment, antennas, accessories and the like.

Rather than reproduce them in the small-sized pages of the SPRAT, the club has had the circuits redrawn into a larger format and had the text retyped with the result that it's very readable work.

It's also an outstanding bargain: $5 (U.S.) postpaid from Alan Lake, G4DVW, 7 Middletown Close, Nuthall, Nottingham NG16 1BX, U.K. If you send a check, make it payable to the club and allow for a difference in the exchange rate. Some members in the United States report no problems with sending U.S. currency through the mails for the circuit book and/or G-QRP Club memberships, about which Lake can furnish information. □

WANTED: Station Appearance entries

If you think you have a station that is worth showing off, why not take a picture of it and send it to **Worldradio** as a Station Appearance entry? You just might win a free year's subscription. All photos are returned, whether or not they're used.

Real thing

(continued from page 1)

fire storms in both deep canyons and on steep ridges, it was obvious repeaters would be necessary to cover them as well as low areas along the ocean. The fire was headed in that direction.

The "Agoura machine" on Castro Peak, WR6ADT was made available, courtesy of Bob Mushet, K6JHX and Jeff Nichol, K6KSF. Another was the Marina repeater, run by Bill Hawley, W6ZRZ. Wayne Rankin. WA6MPG provided repeater and link assistance.

When RACES concluded their assignment Sunday, using the repeater of Dick Steele, K6AZE, the San Fernando Valley group "borrowed" it for a while.

Earlier, Jim Fortney, K6IYK had set up a mobile station at Pepperdine University, Malibu to assist various official agencies with coordination of the massive efforts.

The usual Red Cross disaster workers were able to keep in contact with each other through the long day and night with the Amateur Radio facilities.

As the flames had been conquered, for the most part, by Sunday, time was taken to assess the damage. Four survey teams were sent to the devastated areas, each accompanied by a ham operator. The heartbreak of ruined homes was painfully evident to those permitted past the CHP barriers to find home owners sadly poking at charred remainders.

By late afternoon, the assignments were completed and the various operators were warmly thanked. Included were: Judy Teeter, WD6FWZ; Alvin Teeter, WD6FXG; Ken Teeter, KA6QHE; John Shaw, N6EHU; "Kit" Carson, WB6VPV; Mark Weiss, K6FG; Bill De Armond, W6UEN; Steve Godwin, KD6ZZ; Dick Martin, N6ZQ; Marshall Freedman, W6EAE and his XYL, Roberta; Bob Burns, N6ZH; Frank Pettinato, WB6ELR; Roger Davies, N6DVZ; Lenore Jensen, W6NAZ; Bob Jensen, W6VGQ; and Gary Thurmond, W6STR.

The planned SET was cancelled; the real thing had occurred. □

Bruce L. Humphrys, KØHR

Ham plates and handicaps

This month I am handing over this column to a valued member of the Courage HANDI-HAM System — Bob Wheaton, W5XW. Bob presented us with an interesting way of providing some income for our service while at the same time advertising a very special problem and its solution.

Herewith is Bob's entire letter and announcement:

Unique amateur license plate auction to benefit HANDI-HAMS

This is a rare opportunity to add to your license plate collection a Special Edition from Texas which was done only once, and recent issuing procedures virtually preclude it ever happening again. Rather than being an issue of 10,000 or 100,000 with only normal collector appeal, here we have an issue of only two. Both are identical. If you are the type of discriminating collector who must have all of something, and wish to avoid severe migraines and endless frustration, just double your bid and make sure it will be the top bid received. All proceeds from this auction will benefit the handicap programs of Courage Center, and of course, are fully tax deductible.

What is this oddity? Until this year, a contradiction in the licensing regulations precluded Texas radio operator license plates from being modified with the application of special Texas Disabled adhesive stickers. The bureaucracy further said that the only vehicles authorized to use special Handicapped Parking would have the adhesive stickers on the rear plates . . . no exceptions! But the Disabled sticker could only be applied to regular license plates — those without an embossed expiration month and year. Sound crazy? It was just the typical bureaucratic dragon.

For no good reason, when Texas went to five to seven-year license plates for almost everyone else, Radio Opr plates were replaced every year and had the expiration date embossed into the plates. The same area on regular plates receive renewal stickers, or in the case of authorized vehicles, special Disabled stickers.

So, what to do when an amateur requests a Disabled sticker? Well, first we'll issue him the ham plates; then he can send them back with an application for a special modification and the plates will be destroyed and a modified set issued with RADIO OPR replaced by DISABLED in the embossing. Never mind that this contravened the law saying an Adhesive Disabled Sticker would be used; never mind that a bona-fide handicapper could be issued a parking violation for not having the sticker; never mind that Radio Opr plates are justified solely because they will provide authorities with rapid ID of amateur mobile units in case of disaster, etc., and without the special embossing RADIO OPR the justification disappears.

Can you imagine trying to coordinate the renewal so that the new set would not have to be returned, destroyed and remanufactured as DISABLED?

Well, the dragon was slain. Reason prevailed and after doing this once, the Motor Vehicle Division concurred it was silly, and that amateurs should have five to seven-year plates like everyone else. Everyone saves money in the deal, and the Disabled sticker can now be applied yearly on Radio Opr plates.

As far as is known, only one set was made. The plates say DISABLED but were issued under the terms providing for RADIO OPR plates, as amateur call plates, specially modified to indicate authorized Handicapped Parking privileges. The call sign is "XE2XW," a Mexican call on Texas plates; after all, Texas *was* part of Mexico! Both plates are in excellent condition, having been used for only a few months in plastic-covered holders. Blue lettering on white reflective back.

To participate in the auction, please send a letter or QSL, indicating the amount you pledge to contribute, to Courage Center (Courage HANDI-HAM System). All pledges will be opened on 31 November 1982. Those making the top two pledges will be notified by letter. If you are bidding on both plates, you must make that fact clear. When your pledge has been received by Courage Center, they will forward your plate or plates. These would also make excellent Christmas gifts for serious amateur license plate collectors, and the HANDI-HAMS will benefit greatly by your generosity.

Send pledges to: Ham Plates, Robert G. Wheaton (W5XW-XE2XW-V3XW), 16015 White Fawn Dr., San Antonio, TX 78255. □

IATN: Secret Society?

The existence of the IATN has been a better-kept secret than some of the Pentagon's classified data. Joyce Dolby, WB4PNY — manager of the daytime cycles of the Eastern Area Net — says in *Traffic Call*, bulletin of the Hit and Bounce Net, "For almost a year, IATN has been a functioning part of NTS. The information has been given to NTS managers, but it does not seem to have filtered down to where it is needed."

Despite all the secrecy, the IATN is not a secret society, but a new part of the National Traffic System (NTS). The letters IATN stand for International Assistance and Traffic Net, the normal outlet for all NTS traffic destined for points outside the United States or Canada where either country has a third-party agreement.

Joyce describes its working: "Each evening on the 8:30 session of the Eastern Area Net, there is a representative to the IATN who will pick up all traffic destined outside the United States and Canada. This representative meets the IATN at 7:00 a.m. to send the traffic and to receive any incoming traffic, which will be cleared through the NTS during the day." Thus, the normal routing for traffic destined outside the NTS now is through the various region and area nets and the TCC (Transcontinental Corps) to the Eastern Area Net where the IATN representative receives it for relay to the country of destination.

Any who are interested in acting as an IATN representative should get in touch with Warren Gibson, WA4CCK of Yorktown, Virginia. Extra help is needed just now because of the heavy load December always brings. The ideal IATN representative is an efficient operator in both CW and voice modes; has a station that can be heard in DX lands; has some acquaintance with languages other than English — Spanish in particular; knows traffic procedure; and can be relied upon to keep schedules. But there is room for amateurs who aren't quite that good yet; after all, Amateur Radio is a *training* service. If your CW abilities are somewhat weak, even the Eastern Area Net will slow down to accommodate you; if you can't be heard everywhere, a relay can be arranged; if you don't know Spanish, others on the net can help if needed. So if you can help, you will be welcome.

No-code license

The volume of mail and radiograms and on-the-air comments generated by the suggestion in the October column that the FCC restrict its proposed no-code license to operation on microwave frequencies surprised me. And as of this writing it has all been favorable.

Vince Luciani, K2VJ wrote, "Your comments on the no-code thing helped me to gel my thinking on the subject. I could go for one gig and above, maybe even one-half gig and above. I would like, however, that such licenses be distinctive — such as two-digit call signs — so that piracy on the lower bands does not become common. At least that it not be as inviting."

A good point. We know what happened on the citizens band, how CBers found that by swapping transmit and receive crystals in their transceivers, for instance, they could operate on a clear channel, not realizing that it was not one allocated to the Citizens Radio Service. Improper operation became so common that the FCC could take action only against the more flagrant abuses. Why were we amateurs spared that? Probably because of our investment in time and work, not merely money, we don't want to risk losing it all by irresponsible operating. After all, if the only thing invested in our station were money, losing our license might not be so serious because we could recover much of the investment in the used equipment market.

Without the code requirement, which many find the biggest hurdle to surmount, amateurs might have the same temptation, particularly if their investment in preparation for the written examination involved only reading the Bash books, possibly borrowed from someone else. One such hazard seems worth mentioning, in particular. The 10 GHz band is adjacent to the frequency used by many police speed-measuring devices (popularly but incorrectly called radars). While such devices perform an important service in reducing the slaughter that occurs on our highways, they are also used in some places to earn revenue for the local municipality — a form of legalized extortion that understandably causes resentment among victimized motorists. Such persons, as well as others who are simply resentful of any form of restraint, might be tempted to make use of the 10 GHz amateur band to retaliate.

John Franke, WA4WDL wrote an article in 73 Magazine, "Can Hams Counter Police Radar?" a few years ago, telling how to do it. I won't say which issue — I don't want to be guilty of complicity. But it's not hard to do, and it is not expensive. It may be possible to get on the 10 GHz band for a lower outlay of cash than is required for any other band, thanks to Microwave Associates and their Gunnplexers. This particular abuse, however, is one that no code test or strict licensing policy could limit. As long as equipment can be purchased by the general public, the danger of such abuse is there, and we

amateurs will probably be blamed for it even if the perpetrators do not hold amateur licenses.

More important than the difficulty of the tests, however, is the attitude of the amateurs that newcomers meet. The tradition of responsibility that Amateur Radio has developed over the years is our greatest asset in encouraging newcomers to do likewise, if these newcomers encounter amateurs who take their responsibility seriously. It's up to us who do to make every effort to communicate that attitude to others.

Deliberate interference

Jamming police speed-measuring devices is a form of deliberate interference — something the FCC says is serious, even if only a single instance. Perhaps we traffic handlers suffer more from it than most amateurs because we are trying to keep regular schedules and demand 100 percent accuracy of copy. The DXer may say, "Oh, well, maybe some other day." The ragchewer may go out to the kitchen when a CQer fires up on top of the station being worked, knowing that there will be time for two or three CQ calls before the other station has finished the monologue. The contester thrives on QRM. But not the traffic handler. We just sit there and fight it. And as we stew, we convince ourselves that it's being done deliberately.

Some of it is. And maybe we bring it on ourselves by the way we shoo people off "our" frequency. Phil Johnson, W2SQ had some words of wisdom in the January 1979 New Jersey Traffic Bulletin that the editors saw fit to reprint in the September-October 1982 issue: "Do not sit around the net frequency before the net begins and ask stations calling CQ or in a QSO to move 'because we're about to start a net here.' They have as much right to the frequency as any of us. Don't break a QSO, even at net time, to ask people to move (unless they are net members) just so you can start the net. Move up or down. We'll find you. Nothing creates ill will toward traffic nets more than the attitude that we have exclusive rights to a frequency. If you feel the need to 'protect' the frequency before the net, start a QSO with some net members a few minutes early."

Phil, are you wasting your breath? It has been repeated over and over again that one should not insist on telling people to move, especially that one who is not net control should not break in and tell the interfering station "the frequency is in use," or QRL, QSY, possibly causing more interference to the net's business than the station being asked to move. But it still happens. Many a time I've been able to copy through some interference with little trouble until some soul decides to do something about it and covers up the station I'm copying. Worse yet, the interfering station can't even hear the request to move while transmitting. "But at least I'm doing something about it." Yes, you're adding to the interference — that's all.

The Russian Woodpecker

Most of us who handle traffic don't encounter it, but those who operate on 20 meters know it very well — Russia's over-the-horizon radar popularly known as the Russian Woodpecker. Bob Haviland, W4MB said in October **Worldradio** that he succeeds in getting the bird to fly elsewhere by adjusting his keyer to generate a signal identical to the Russian's. Vince Luciani, K2VJ suggested going a step further and synchronizing it to the Russian pulse (he suggests calling the circuit a "schmittsky trigger"). Is that deliberate interference?

Probably we should say that the Russian Woodpecker is not deliberate interference; rather, it's callous interference. The purpose is not to cause interference, nor to jam other communications (although they do enough of that on other occasions); rather, it's to protect themselves against us warmongers and imperialists, and if it causes anyone any interference, it's just too bad.

Pecking back as suggested above would, however, be deliberate interference, as the purpose of such transmissions is to prevent proper operation of the radar. It would be grounds for the FCC to suspend one's operator license (Section 303(m)(1)(F): "wilfully or maliciously interfered with any other radio communications or signals" — Communications Act of 1934). Note, however, that the FCC is not required to suspend one's license; it is left to the Commission's discretion, and there's a good chance that no action will be taken.

Be careful, however, With the world situation what it is, you just might put out a signal that too closely simulates an echo from a missile heading for Moscow and make someone over there start pushing the button to start shooting back.

I wonder how many 20-meter operators have dreamed of being on the crew that launches a missile to home in on that woodpecker! Actually, though, it's more of a nuisance than a problem as it doesn't stay in one spot more than a few minutes.

Of course, if that happens to be just the few minutes we're operating, it doesn't encourage us to think thoughts of detente. Let's just hope we don't start throwing something heavier than RF at each other in the months ahead. □

Send greetings via NTS

Don Simon, NT6A

Every year the National Traffic System (NTS) is kept extra busy delivering thousands of Christmas and New Year's greetings. Christmas and New Year's are the heaviest season, and circuits often get overloaded the last week before Christmas as a lot of people wait until the last moment. Providing such a service for neighbors, friends, relatives, local hospitals, geriatric centers, etc. allows people to communicate via Amateur Radio and provides both a public service and positive publicity to the amateur service. Keep in touch with old friends this year via the NTS or your local net, but get it out early so that Santa's helpers can rest on Christmas Eve.

Using ARRL-numbered radiograms smooths the operation. ARL 61 says: "Wishing you a very merry Christmas and a happy new year." ARL 62 says: "Greetings and best wishes to you for a pleasant holiday season."

A sample Christmas message may be sent as follows:

Nr 1 routine W1AA arl 6 West Hartford Ct. 0100Z Dec 14

John and Grace Doe
6146 Telegraph Way
Marconi, Ca. 95666
Tel. 811-4000

ARL 62 CHRISTMAS X LOVE
The Joseph Hamm Family

Simple, isn't it? If you want the message delivered on a certain date and are not afraid to try something new, insert the letters HXF between routine (sent as R on CW) and the station of origin. Follow the HXF with the day of the month you wish the message to be delivered. For example, a message reading:

Nr 1 R HXF 24 W1AA etc. is requesting the delivery should be held up until the 24th of that month.

Nr 2 R HXF 31 W1AA etc. requests delivery on the 31st day of the month.

Whether we dare use the HXF handling instructions or play it safe with the standard old format, it's still the same old game. Christmas and New Year's are good times for old acquaintances to renew contact with section and local nets and to send a message to old friends. At the same time, we polish our operating skills and renew our capabilities to be of service, should such skills be of short supply during a distaster. Meanwhile, the NTS will provide public service and build friends for Amateur Radio in an era of TVI ordinances, CATV lobbying, antenna ordinances, and other threats to our valuable hobby.

ARL 61 TO YOU AND YOURS and 73.

Me . . . Polish?

Jan Papazian, KA8JFR

I have been a Novice for two years and I *thought* my CW was getting pretty good — both on transmit and receive. That is, until a recent QSO.

The contact started out as per usual, and I was getting solid receive copy. I was self-congratulating myself on a good job when suddenly, bingo! Nothing he was sending was making any sense to me — absolutely *nothing!*

I just couldn't figure out what had happened. I did copy the part where he turned it back to me for my comments. I told him the truth. I said, "FB copy up to a certain point then I couldn't copy a single thing."

Then came the explanation. It seemed my CW contact had looked my name up in the Callbook during the QSO and assumed I was of Polish nationality and started sending in Polish!

No wonder I couldn't copy anything and he sure made a mistake. My last name is Armenian!

Chalk up another crazy unusual Amateur Radio QSO, but I love them.
— *Triple States ARC, OH* □

Lil Paddle

The description of the half-wave vertical in this column brought some interesting questions from Dr. Donald Ramras, KD6GR of San Diego, California.

Here are some answers. As is the case with practically any antenna, the higher the better. However, the bottom of this antenna, but a few feet off the ground, should vastly outperform the ground-mounted vertical. The size of the coax used in the antenna itself should make little difference. Tune it by trimming an equal amount off of each end. Now you may find, if the bottom is near the ground, that the shield side should be about 5 percent longer. That would really be playing the purist! In truth, there's really a wide latitude before the difference can be heard at the other end.

One way to make the sleeve would be to use a smaller coax for the antenna itself and the braid from a larger coax for the sleeve.

Yes, it will work well for 20 meters. As for mounting the different antennas near each other, I'd recommend at least quarter-wave spacing to avoid interaction. Support it by any non-conductive lash-up that keeps it from falling down. True, no gamma match or any of that. And no, I cannot furnish a diagram of it. This is radio, not television. You have to use your own imagination.

Tell us how it works out for you. But check it out over a long period of time. Too often, antenna judgments are made too quickly — possibly on a day the sun either did or didn't.

Next, Dave Witt, KA9GVI of Berlin, Wisconsin was kind enough to share his experience which he puts this way:

"Want an inexpensive all-band (80-10) antenna, that is easy to make and does not need to be mounted a hundred feet in the air? Read on.

"This all-bander consists of a 40-meter Delta loop, TV twin-lead or open transmission line and an antenna tuner.

"Step 1: Construct the 40-meter loop (141 feet). Attempt to keep all sides equal, but if not possible, continue anyway. One side of my loop is only 30 feet long, and the bottom leg is not straight, in order to avoid part of my roof.

"Step 2: Connect one side of the loop to one side of the twin-lead and the other side of the loop to the second twin-lead wire. Feeding at the bottom will give the lowest angle of radiation.

"Step 3: Run the twin-lead to the shack. Keep the line away from metal objects and don't make right angle bends with it. Using TV line has a real plus, for a flat line is much easier to snake through wooden windows and costs less than coax.

"Step 4: Connect the transmission line to your tuner as per the manufacturer's instructions for a balanced line. Then ground the tuner.

"Note: If your tuner has a dotted line on the metal between the single-wire post and one side of the pair for a balanced feedline, that means a strap of wire must be connected there for proper operation.

"Step 5: Find with the tuner the 'right' settings for each band. Any point in a band can be tuned to 1.5 or less SWR. Sometimes these settings are difficult to find, but they are there. Tuners can be a little frustrating with three controls in what seems like an infinite possibility of adjustments. Read the instruction book that comes with your tuner.

"Note: One method to get close to the ballpark is to first listen to the band you're interested in, and tune in a signal. Adjust the inductance for the loudest signal on receive, then adjust the two capacitors.

"For my particular loop, one setting was found that covers most of 10, 15 and 20. A separate setting for 40 and another for 80 were found.

"If you should find that several settings appear to be equal, choose the one that results in the plates of the capacitors being more meshed (closed) as the best one. Greater capacitance results in greater harmonic suppression.

"Write down the settings in chart form, and then when you go to the particular band you can just reset the dials. You may find that over a period of time, the settings may change slightly.

"On-the-air comparisons proved this this all-band loop to be better or equal to all the assortments of single-band dipoles, long wires and other antennas that had filled the air above my house. Results on 80 meters even allowed removal of that dipole.

"My tuner was purchased used for $40 and I had most of the wire in the junk box. My inexpensive all-bander is good enough to get a 5/9 from Guam."

Thanks, Dave, for giving someone else an idea to try out.

Now, something for the experimenters. Many amateurs have built the ZL special and/or the W8JK. The antennas use a phasing line in the middle. The beauty of the W8JK is that using a tuner, one can adjust the impedance exactly to match whatever results from being whatever height above ground. Also, the antenna can be used on any band above what it is cut for.

Now try this. Build the W8JK as before, but do *NOT* cut one of the elements in two. Leave it whole. Cut the other element in two and feed with open line at the break. Forget the usual phasing lines and crossed-over twisted lines or whatever. Instead do this . . . at both ends of the two elements, just prior to the insulator, connect the two elements. Yes, it now looks like a drawing for a giant folded dipole, but it isn't.

At a given height, up to about a half-wavelength above ground, this should outperform a two-element Yagi.

Another topic: While on Field Day we used Van Gordon baluns on our 40 and 80-metre antennas. We also have one on our 80-metre dipole at home. However, if you want something small — backpacking, etc. — I highly recommend the Budwig connector. Their ad is in Worldradio. They also have very novel end insulators. This is not a "plug" because a long time ago we mentioned them also. Seeing their ad just brought them to mind again.

To me, seeing antenna articles in the magazines and handbooks showing use of a broken bottleneck or an old-fashioned glass insulator as the center support is like fingernails on the blackboard! Also, nix to little plastic boxes, etc. Do it right!

I bought my first Budwig connectors about 15 years ago. For connecting wire verticals (where you don't want a balun, as the system is unbalanced to unbalanced), they are terrific! And for those who obtained their licenses from Cracker Jacks boxes (Kurt is having a bad influence on me), Budwig even sends along the length figures to cut dipoles for several spots in each band.

Speaking of such, have you heard about the results from a recent one-day cram course in passing the ham test? Seems the FCC changed the tests slightly (really now, there are only so many ways one can ask questions about basic radio) and the crammers had great difficulties. Question that nearly 90 percent of them missed was the direction of radiation from a Yagi. They put down, in the direction of the elements. If it wasn't so tragic, it would be funny.

The regular students of radio did the usual percentage of passing and the "special class" went down in flames. There must be some object lesson in there to ponder.

If you should be attending a hamfest where VoCom is an exhibitor, ask Art Householder to show you their special demonstration on rubber duckies.

It almost seems disloyal to say this, but I haven't yet purchased the new RSGB book on HF antennas by Moxon, which is sold in this country by the ARRL. But I have heard it is excellent and does make one put on her thinking cap.

Now, a bit of waxing philosophically. There just has to be something new in antennas. Yagi and Uda did their thing back in the '20s. Moore made his shot in the '40s. What since, HFwise?

There just has to be some new concept, some progress. Everything else is undergoing sweeping changes. Where is the new form for antennas? Don't say there can't be one. Give it some serious thought. You might come up with it.

(Leftenant Lil goes by her alias in order to avoid confrontations with ninnies who make horses of themselves by making inane claims for comparison antennas without realizing that the standard they were using had all the radiation effectiveness of a bowl of porridge.) □

A5 FSTV-DX Contest results

Michel Brunelle, FM7CD of Fort de France, France (Martinique) beat out 62 other entries in the July A5 ATV Magazine SSTV-DX Contest with 1,622 points for top honors in the yearly SSTV-DX contest. Rolf Selchter, KE1Y won first place of the USA entries with 810 points, with Elmore M. Misner, VE3ADG winning the "multi-op" category with 453 points. Official results of the August A5 FSTV-DX Contest have been announced as follows (37 entries, only top 15 reported).

1.	W6VCF Ron Olney, Encino, CA	9,989
2.	WA8RUT Ken Morris, Columbus, OH	5,685
3.	WD8MRV Richard Karr, Risingsun, OH	3,560
4.	WB6ROP James Mckee, San Diego, CA	3,403
5.	KB0XL Mike Finley, Cedar Rapids, IA	3,015
6.	WB9MCF Ron Priebe, Burnside, IL	1,955
7.	W2RPO Ralph Janowsky, Lockport, NY	1,907
8.	WB0ZJP Dave Williams, St. Louis, MO	1,905
9.	WA9NJR Ron Hines, St. Paul, MN	1,895
10.	VE3FYY Julius Csatanv, Grimsby, Ont. CANADA	1,621
11.	W6RVP John Dieringer, Los Angeles, CA	1,620
12.	W2WHK Don Fuller, Tonawanda, NY	1,496
13.	WA8SAR Gary Obee, Lambertville, MI	1,494
14.	K8HVA Guy Cunningham, Plymouth, OH	1,445
15.	KA0BVT Don Hartman, Moscow, IA	1,225

Dave Williams, WB0ZJP of St. Louis, Missouri in a live TV signal during the A5 FSTV contest.

*"Multi-op" K2MME (N2BJ) New York, NY area 2,030

The winning station of W6VCF drove a "motor home" to Saddle Peak Mountain (2,000 feet above sea level) and worked 2 watts portable FSTV into the Los Angeles area for most of his contacts. Jim Bennett, K6YGX assisted in the operation. W9ZIH Chicago and WB0ZJP St. Louis, Missouri had the longest DX contact at 260 miles black/white picture (P3) with on-carrier audio.

New television contest dates have been announced for 1983: 14-16 January — A5 WAS-SSTV Contest; 18-20 February — A5 UHF-ATV QSO Party; 15-17 July — A5 SSTV-DX Contest; 19-21 August — A5 UHF—FSTV—DX Contest.

Further information on ATV operation by radio amateurs can be obtained from Mike Stone, WB0QCD c/o A5 ATV Magazine, P.O. Box H, Lowden, IA 52255-0408. □

Ron Flynn, KB8LU

The program chairman for the 1983 Dayton Hamvention from the Dayton Amateur Radio Association has asked me to be the moderator for next year's ATV/SSTV Forum at Dayton. As such, I made a trip to Dayton last September to make arrangements for ATV and SSTV activities for next year's Dayton Hamvention. The dates for the 1983 Dayton Hamvention are 29-30 April and 1 May 1983.

The Holiday Inn North of Dayton will be the SSTV and ATV headquarters for Dayton 1983. Although still five months away, I have been busy for over two months working on details. I have reserved a room to hold a long overdue ATV get-together on Saturday evening of the Hamvention. Over 75 letters have been sent to ATV groups throughout the country concerning this. If you are an ATVer reading this column, and have thoughts or comments about an ATV get-together or possible speakers or topics for the ATV Forum, please contact me directly.

The annual SSTV get-together will be held on Friday night of the Hamvention at the Holiday Inn North. Next year's get-together will be an informal event. We will have a "drop-in" hospitality get-together with cash bar or beer on tap. There will be no formal presentations to a seated audience, as was done last year. Representatives of commercial SSTV companies have been invited to be there to talk about their products in an informal casual atmosphere. A table or two will be available to display experimental SSTV equipment by invitation. If you have experimental SSTV equipment you would like to display, please write me describing it. Since there will be no formal presentations to a seated audience, experimental equipment should be "self-demonstrating" by using a tape recorder or providing handout sheets.

At the 1983 Dayton SSTV get-together, I would like to provide a relaxed informal event where SSTVers can discuss issues of concern, talk with equipment representatives away from the crowds of Hara Arena, and most important, be able to visit and make lasting friendships with fellow SSTVers.

Hamvention housing

I have made special arrangements with the Dayton Convention Bureau and the Holiday Inn North in Dayton and have obtained a block of 75 rooms at the Holiday Inn North for SSTVers. There are 40 rooms with one double bed and 35 rooms with two double beds. The Holiday Inn North is convenient to Hara Arena and is adjacent to Interstate 75. For SSTVers who would like to stay together at one convenient location, these rooms will be reserved for you on a first-come first-served basis.

To reserve a room(s), send the following information and deposit check to Ron Flynn, KB8LU, Rt. 2 Box 204, Bangor, MI 49013. My phone number is 616-427-8166.

Information: Name, call sign, address, city, state, zip. Phone number. Number of people in room. Room type — one double or two double beds. Date of arrival — 28, 29 or 30 April. A deposit check of $50 per room.

Make checks payable to Holiday Inn North. There is a minimum stay of two nights. The Holiday Inn North will send you written confirmation of your room after 1 February 1983. Hamvention room rates for two people at the Holiday Inn North are $42 per night for one bed and $50 per night for two beds.

Single-frame color

Syd Horne, VE3EGO wrote an excellent article on the subject of single-frame color and the RGB standard, and asked me to publish it here. Unfortunately, due to space limitations I cannot print the full article. Syd emphasized the relationship between the amount of SSTV picture information being sent in a given format and the bandwidth of that transmission and length of time it takes to transmit that information.

Acknowledging the RGB frame sequential color SSTV as the standard, and indeed the best quality color SSTV we have today, it takes 25.5 seconds to transmit a red, green and blue frame to form a color SSTV picture. With today's technology, to reduce the transmission time to, say, 8.5 seconds for a single-frame color picture would require either increasing the bandwidth or reducing the amount of picture information being sent. We are already using 2300 Hz for white, so we cannot significantly increase the bandwidth. It is highly unlikely the FCC would increase the allowable bandwidth of SSTV on SSB. Therefore, those experimenting with 8.5 second single-frame color SSTV have had to significantly reduce the amount of picture information being sent to get a picture across in that amount of time. The results have been poorer resolution and poorer color quality. It will be many years before a colorburst-type system can be developed to change this. We seem to be realizing that a 25.5 second scan rate produces the best color SSTV picture and is a reasonable amount of time, considering our bandwidth limitations. To use a shorter scan rate sacrifices the quality we have become accustomed to.

The RGB 25.5 second line sequential single-frame color SSTV, developed by Sam Mormino, WA7WOD and Howard McAfee, KD6HF, takes the same amount of time as RGB frame sequential color SSTV and produces the same excellent quality pictures. The difference is that instead of sending alternating frames of RGB, alternating lines from the red, green and blue memories are transmitted. Hence, line sequential SFC SSTV. Besides seeing the full-color SSTV picture unfold before your eyes, 25.5 second SFC loads automatically with no switching necessary. Today, over 50 people have installed this simple modification into their Robot 400, including many who have installed it in a standard Robot 400 and are copying the longer scan rate pictures in black and white.

Further experimentation and refinement of this new mode is still necessary. QRM can knock the scanning picture out of color sync, resulting in off colors. When out of color sync, the line from the red memory is loaded into either the green or blue memory, and all subsequent lines are also loaded improperly. A push button or switchable fix is available to get the scan back into color sync, but some true color will be lost until the correction is made.

Thanks

I would like to thank everyone for the nice letters and comments I have received about this column, especially last September's. A short paragraph in my September column, which mentioned SSTV history, needs to be clarified. It was not meant to be an account of SSTV history. It was to make the point that history remembers successes rather than claims. The names mentioned in that paragraph, in fact, came from you the readers of this column who have communicated with me on the subject.

Watch for a new SSTV scan converter on the market soon! 73s, Ron Flynn, Rt. 2 Box 204, Bangor, MI 49013 □

Warren Weldon, W5DFU of Tulsa, Oklahoma speaks at the recent *A5* Midwest ATV Conference in Peoria, Illinois.

ATV conference

The 3rd Annual "Midwest ATV Conference" was held 17 September at the Holiday Inn Brandywine, Peoria, Illinois. Ten states were represented: Iowa, Nebraska, Missouri, Oklahoma, Illinois, Indiana, Ohio, Michigan, Wisconsin and Massachusetts with two representatives from Thunder Bay, Ontario, Canada.

Mike Stone, WB0QCD, editor/publisher of A5 Magazine (sponsor of the event) MC'd the 13-hour meeting with eight "guest" speakers, including Dr. Don Miller, W9NTP on FSTV; John Beanland of Spectrum International on ATV Filters; John Greve, W9RI on Using Computers for ATV; Warren Weldon, W5DFU on ATV and Public Service and G-Line Devices; George Steber, WB9LVI on High Resolution SSTV; Tom Hibben, KB9MC on Motion SSTV, and others. A studio tour of WMBD-TV Channel 31 in Peoria was conducted in the afternoon.

The affair was tied in with the two-day hamfest on 18-19 September at Peoria, Illinois sponsored by the Greater Peoria Amateur Radio Club. Next year's Midwest Conference will again be held in Peoria; Milwaukee, Wisconsin is planned for 1984. □

SSTVer of the Year

Tom Hibben, KB9MC of Desoto, Wisconsin has been elected as "SSTVer of the Year 1982," as announced in the November issue of A5 ATV Magazine. The yearly award recognizes individuals who are outstanding in their promotion and achievements of Slow Scan TV for amateurs. 1981's winner was Clay Abrams, K6AEP. □

Quarter-wave groundplane does the trick

Jane Johnson, K3RIH

Hamming while sailing is a delight. However, former summer outings had left us with unfinished QSOs when signals got lost in the QRM. Last year, my OM Walt K3SSB assured me that that summer would be different.

We dropped in at our favorite ham store and he showed me a small quarter-wave groundplane antenna which was hanging from the ceiling on a string. Pointing at it, he said, "That is going to solve our problem!"

It didn't look very impressive. It was small — very small, but he bought it. It had three small radials, and I wasn't too confident that this small difference on top of our 20-foot mast would actually change anything as we sailed our 20-foot Ensenada, the *Butch 3.*

We went down to the boat and took some measurements and returned to buy the coax cable to run up inside the mast. A few weeks later the boat was launched wearing what we called "the top hat."

We couldn't wait to try it and our initial contact was a pleasant surprise. Sailing on the upper Chesapeake Bay, we were quite a distance from the home QTH, and it was our hope to work the favorite machine back home — a feat that we had never accomplished before.

We did it! That small antenna was a welcome addition and made a big difference. We still have one concession we must make. The Maryland shores are banked with lovely trees which wash signals out when we are too close to shore. But that is no serious loss, as we are very busy hauling lines and putting up sails as we take off from shore.

Once the sails are set, we get comfortable in the soft breeze and give a shout, and soon we have an enjoyable QSO. One fact has startled us. Out there, there are hundreds of amateurs who used to sail, still do sail, wish they could sail and want to know if they can come down and sail. It is a pursuit which strikes a chord in many hearts, especially while on vacation. When the drivers are whizzing down the interstate and we contact them, it drives them crazy that we are lolling on the blue while they have to work.

I don't deny it heightens our enjoyment to hear their moans.

We ran the coax down into the cabin and made a connection above the pop-top cabin cover. We hang a rope sling from the front support and the rig lazily swings, and we use a speaker mike from our Wilson and hand it back and forth. We can attach the mike when we are busy, as we are frequently apt to be when we have to come about.

We've made contacts with other amateurs in boats, and they hear our location and drop by to say hello.

We are a family of amateurs and have enjoyed the convenience of reaching our children while they are still home when we vacation.

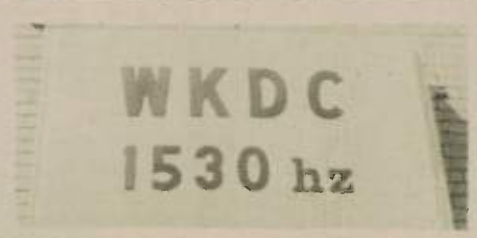
One modification was necessary. The coax flopped within the mast cavity and the noise grated our ears. Walt ran it through balls of foam and then forced the balls up into the mast, and voila — quiet! A neighbor — too nice to complain — expressed his thanks to the absence of the plop-plop caused by the water's motion at mooring.

There are many substantial and well-known antennas on the market competing for the customers' dollars, but in our particular case, a little-known lesser light was "tops" for us. □

Jane Johnson, K3RIH has been an Amateur Radio operator for 20 years, and is a member of the Delaware County Amateur Radio Association. She does public relations work for the club. Jane worked for Philadelphia and suburban newspapers for 31 years, and still keeps busy with freelance work; most of her work is now done for the News of Delaware County. She is also a partner in a professional writing business called Well Turned Phrase. Her husband Walt is K3SSB.

Walt Johnson, K3SSB attaches wind indicator on antenna. *(Jane Johnson photo)*

Antenna above sails on *Butch 3.*



What kind of receiver will pick up this broadcast station? Does it really have an RF amplifier? What you see is a sign maker's error; like low cal diet food, WKDC of Elmhurst, Illinois has no kilo. Gerry Swetsky, WB9EBO, President of the Radio Amateur Megacycle Society, couldn't stand it any longer while driving to work, so he took a picture as proof. The new owners of this AM broadcast station will have the sign repaired, according to Tom Rodman, Director of Engineering. They intend to go 5kW with AM stereo from the current 250 watts of day only soon, hopefully on 1530 KILO hertz. ***(submitted by Ero Erickson, KA9DYS)***

Young amateur builds TV camera

Claire Martin
Submitted by John Uzzolino, KA2NOW

Frank Uzzolino, KA2FTK had lots of family support as he pursued his interest in electronics, but when he decided to build his own TV camera in the summer of 1980, at age 13, even his father, John, had doubts. His friends at Terrill Junior High were downright skeptical. However, Frank persisted in the face of continuing problems.

In January, Frank — then 15 and a freshman at Scotch Plains/Fanwood High — was rewarded by seeing his own picture on TV transmitted by a camera he had built from scratch.

He got the idea from an article in the January 1978 issue of **Ham Radio Magazine,** "Broadcast Quality TV Camera," by Arthur Towslee, WA8RMC — a ham operator in Westerville, Ohio.

Frank first became interested in Radio when his friend, Dave Linn, moved to the block four years ago. "I saw them (Dave and his father) putting this huge antenna up," said Frank, "and I started getting curious."

Frank and Dave studied together for the Novice license. Frank also took a course given by the Tri-County Radio Association at Union County Technical Institute. At age 12 he got his Novice license and was on his way.

Part of the basement of the Uzzolino home was cleared for his "lab". It wasn't long before Frank could transmit by Morse code, then by voice.

Frank then thought it might be fun to see the person he was talking to. He remembered an article he had seen among magazines given him by another neighbor, Hank Treger. That was the Towslee article on TV cameras. He thought he'd try to build one.

Frank set out buying some parts, finding others at flea markets and on Junk Day. Some were given to him by friends. Even Arthur Towslee sent parts from Ohio, when he learned what Frank was doing.

When asked about the problems he ran into, Frank laughed, "Almost everything you could think of went wrong with this thing." For instance, after waiting months for circuit boards he had ordered, Frank learned the company no longer made them. He had to find others, then drill the more than a thousand holes needed to attach the circuitry. The whole project took patience and a very sophisticated understanding of electronics.

Frank says of his camera, "I learned a lot from building it myself, from scratch."

Frank's father, John KA2NOW, is an employee of AT&T. He was a math major in college and knows a good deal about electronics, having built the family's color TV set from a Heathkit. But referring to the article son Frank used for his camera project, John said, "All that's beyond me. I'm interested in electronics, but not as much as he is. He's gone a lot further."

Frank would like to encourage interest in radio at the high school. He and his friend Dave hope to get the defunct school radio club going again. "The equipment is there," he says, "but no club. There's not enough interest." As for Frank's plans for the future, he says, "I haven't given it a lot of thought."

— The Times, Scotch Plains-Fanwood, NJ

Please send NEWS and PICTURES to Worldradio

Memories of 1939 code speed contest

Hal S. Justice, W4TS

I was recently urged by Mr. Daniel B. Henderson, WA4QQN — on 2 meters — to write what I remembered of the code speed tournament at the hamfest in Asheville, North Carolina, on 2 July 1939. This is listed in the Guiness World Record Book as the all-time high code speed. Mr. Rudolph Gibbs was chairman of the tournament and possibly president of the club; I was vice president of the club about that time, with Mr. Gibbs, but am not sure if it was the year of the tournament. Mr. Gibbs worked closely with Walter Candler, tournament sponsor, and he will probably know more details than I do, and can correct anything below if I am in error. Mr. Gibbs, W4HX, is probably no longer at business on Biltmore Avenue, but the Callbook gives his address as Box 327, Weaverville, N.C.

Mr. Walter Candler had sold his Candler Systems and returned to his home town (Sylva, North Carolina) and joined the Asheville club. He largely financed the code tournament, managed it masterfully, so there was little for us to do.

The 4th of July hamfests were heavily promoted and attendance was usually 250 to 500 — a large turnout for the number of amateurs in those days. The George Vanderbilt Hotel was used most times, but the old Langren was used a time or two. I believe the tournament was held in the ballroom of the George Vanderbilt, but am not sure as the floor plan and ballroom arrangements were similar in location at both hotels, and memory dims.

Walter Candler had determined that he could bring his two top students for a tournament: L. R. McDonald, W8CW, who had won a tournament at 60 wpm in a hamfest in Detroit, 6 September 1937, and felt he could have done 10 wpm better; and Ted R. McElroy, who taught the Candler course at Harvard, and who once copied 69 wpm.

So, the tournament was announced, and there were 25 entries at the early deadline; another showed up due to error.

John Griggs, W6KW and Roxanna Griggs, K6ELO at the ARRL Pacific Division Convention, Santa Cruz, California, 9 October. John is former long-time Director of the ARRL Southwestern Division, and is now an Honorary Vice President of the League.

making 26. A typewriter manufacturer (I believe Remington) prepared 25 matched machines and shipped to Asheville dealer. The 26th was another make borrowed from the hotel office.

McElroy was a flamboyant, outgoing and confident person. McDonald was the opposite — very quiet and reserved, one who could be taken for a minister or judge. A rather large man, he was also confident. He mentioned to me that the loser would probably be the one who first brushed an adjacent key, accidentally.

Several club members had duties during the contest. I was one of three who observed during the contest, as best I remember. We had absolutely nothing to do.

The tournament started about 2:00 p.m., with tables and chairs just off-center of the ballroom. Spectators were not excluded; Ted McElroy liked spectators, and McDonald had no objections. No one else objected, so over a hundred amateurs watched. Some lined the walls, but most stood in the opening, or area between the ballroom and lobby. All were well-behaved and there was no distraction whatsoever.

The first round was run (I believe) at 35 wpm. About half the contestants dropped their headphones. At 50 wpm, only one or two were left besides McElroy and McDonald. At 55 wpm, only McDonald and McElroy were left. There was a "breather" after 60 wpm, then they battled it to 72 wpm. I do not remember the exact details after that point. I had thought the final speed was between 73 and 74 wpm, but Guiness is undoubtedly right about 75.2 wpm. I do remember McDonald removing his headphones and McElroy typing on for a few moments after the code machine stopped. Then McElroy showed his jubilation for a few minutes.

Walter Candler passed away around 1941 or 1942. □

Telegraphy — wire and wireless

The subject of telegraphy, the sending of information by means other than the spoken or written word, has intrigued mankind for hundreds of years. Many types of signaling were tried, all with varying degrees of success. By day, visual indicators such as smoke or semaphore arms were used. By night, fires or other light sources conveyed information by numbers, placement, or being alternately obscured or revealed. Although widely used by both primitive and advanced societies, these methods lacked dependability. Weather conditions could (and did) play havoc with all types of visual communication circuits. Despite these sharp limitations, commercial and governmental communications circuits were widely used in Europe (and elsewhere). There had been an attempt, not wholly successful, to utilize electrostatic effects in a telegraphic signaling system.

Many ideas were proposed — some harebrained, some feasible. An example of the former was the proposal to set up a series of towers — the transmitting towers to house a powerful electromagnet, the receiving towers to contain a large-sized compass. It was believed that the electromagnet would deflect the compass over considerable distances, thereby permitting long-distance communication. (Don't laugh too heartily over this, for here in the eastern part of the United States, stock was sold in a company that proposed to accomplish the same effect by the use of x-ray tubes in the transmitting towers. This was near the start of the 1900s.)

Other ideas, however, were practical. Some were put into effect in England. It may be a blow to one's pride of being an American, but it's a fact that a system of electromagnetic telegraphy was placed into commercial use in England before Samuel Morse introduced his system. Morse's system was superior to others and, in various forms, soon displaced others so thoroughly that their very existence has faded in man's memory.

Once initiated, electromagnetic telegraph lines were established quickly and widely. In Europe, where distances between cities were less and density of population was greater, a greater number of lines was built than here in the United States. An 1853 map of England, Wales and Scotland, showing the telegraph lines then in use, is somewhat amazing. The area was laced with lines! Some portions were neglected, though, so in 1870 the British Post Office took over all telegraph lines to ensure their being extended to even remote, sparsely populated portions of the isle.

But this story is not about commercial or governmental telegraph lines. It concerns the amateur — the experimenter or casual user who was not looking for money, but for pleasure or increased knowledge . . . often both. Whenever new ideas or discoveries are made public, curious individuals want to know more, want to investigate the possibilities of and to explore the uses of these new devices or techniques.

Amateurs of wire telegraphy appeared upon the scene very quickly. As manufactured components such as sounders and keys became available, the number of amateurs increased significantly. It was not long before privately-owned telegraph lines — lines linking friends with similar tastes — were being strung in many localities. The small factor of the user having to learn the Morse code never bothered anyone. After all, any youngster of normal intelligence could readily learn it well enough to communicate with his fellows . . . and it didn't take much time, either! The number of such amateurs increased as years passed by. The lure of telegraphic communication did not diminish. So, by the time wireless telegraphy appeared, there was a nucleus of experienced operators — all of whom were eager amateurs — to welcome the freedom from wires.

It took quite some years to make the shift from the rather complex American Morse Code to the simpler International Morse Code, but most operators made the change with little difficulty. The American Morse Code use did not disappear; in fact, the Extra First Class Commercial Radio Telegraph Operator License examination of the 1920s required a speed of 30 wpm in International Morse and 25 wpm in American Morse. Even in some radio broadcast stations in the 1930s, the control line between studio and transmitter had a key and sounder at each end.

But, to return to the matter of amateurs of wireless telegraphy, many young chaps (and many not so young) were well prepared to embark upon this new phase of telegraphy. The requirements for a transmitter were simple. A trip to the nearest garage would turn up a discarded Ford ignition spark coil. A bare-bones transmitter could consist of only the spark coil, a spark gap (which you could easily make), a key (borrowed from your wire telegraph), a battery, and some sort of antenna and ground. This transmitter, known as a "squeak box," could put out a signal readable at about a mile. A receiver was even more simple. The bare-bones receiver used a crystal detector, headphones, and antenna and ground. Granted, it was not tunable, but then, neither was the transmitter! With such a broad transmitter, tuning a nearby receiver was a needless operation.

Of course, the true amateur is never satisfied with a bare-bones set-up; he must ever strive toward some goal, usually one of non-achievable perfection. But in striving to reach that elusive goal, he continually improved his transmitter, his receiver and his radiating system. So the wireless amateur evolved from the crudest of receivers and transmitters to more elaborate ones, from spark radiotelegraphy to continuous-wave radiotelegraphy, from telegraphy only to telegraphy plus telephony, and on to many and various special types of emission. But he owes his antecedents to that inquisitive band of amateurs who could not resist the lure of the electromagnetic telegraph. □

Same day — twice

I worked KA3IYB (Middleton, Pennsylvania) and KA3IBY (Baltimore, Maryland) on 27 September 1982. I received their QSL cards the same day — 30 September 1982. *(A.F. Doane, KA9FAL)* □

Multi-mode code reader

Universal Electronics, Inc. announces a new multi-mode code reader — the M-600. This RTTY unit can copy a wide range of RTTY codes and modes, including bit inversion and TOR SITOR. The unit has variable shift capabilities, a weather format, and is capable of all speeds and shifts of Baudot, ASCII and CW. Details on these features follow.

ASCII — 110, 150, 300, 600, 1200 baud rates; *Baudot* — 60, 66, 75, 100, 132 wpm; *Morse* — CW auto-range up to 60 wpm; *TOR SITOR* — both ARQ and FEC modes with full receive only function on these codes, AMTOR when approved; *bit inversion* — five-level security bit inversion for Baudot decoding from keypad. Decodes any combination of bit inversion being used for security; weather text — weather bureau symbols, arrows, etc. Keypad-controlled.

The unit also includes three SEL calls, displaying the actual programmed SEL call on screen; two video fonts (weather box and standard ASCII); screen print feature; speed readout; multiple scroll inhibit; unshift on space; self-test system; and shifts — all of which are keypad-controlled.

Audio inputs (4-600 ohms, .25 VP-P) and video outputs; printer driver, mode, speeds and buffer; loop supply; status line; front-panel controls and indicators; and rear-panel jacks are additional features of this innovative RTTY unit. Options include built-in loop supply, parallel printer output, and rack handle and mounting ear kit.

Dimensions: 16⅜" × 3½" × 10¾"D. *Weight:* 9 lbs., shipping 12 lbs. *Power requirements:* 115/230V, 50/60 Hz, 25 watts.

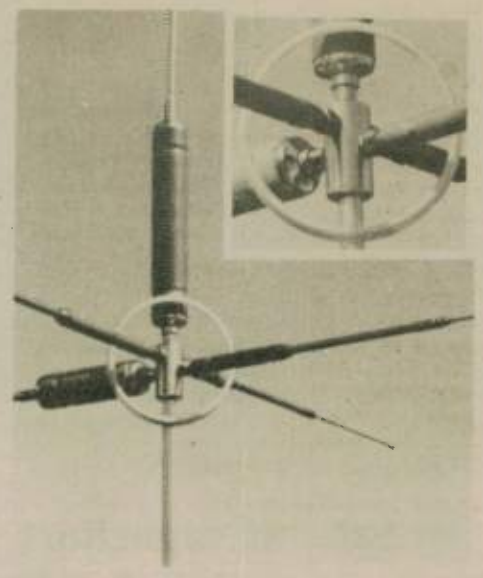
The unit sells for $799.95 and comes with a limited six-month warranty on parts and labor. Order from Universal Electronics, Inc., 1280 Aida Dr., Reynoldsburg, OH 43068; 614-866-4605. □

Synthesized UHF mobile

ICOM is proud to announce another addition to its rapidly growing UHF line. Now, in addition to the IC-451A, IC-490A and IC-4AT, the IC-45A provides FM mobile coverage of 440-450 MHz. Major features are:

Small size (2"H × 5½"W × 7"D; green LED readout (easy-to-read in bright sunlight); five memories; priority channel; band and memory scan with automatic resume; memory backup provisions; 1 MHz up button for quick QSY; variable duplex offsets; and same size and matching styling to the IC-25A. A touch-tone microphone is included. Frequency coverage: 440-449.995 MHz.

See it at your local authorized ICOM dealer or write or call ICOM America, Inc., 2112-116th Ave. NE, Bellevue, WA 98004; (206) 454-8155, or 3331 Towerwood Dr., Ste. 307, Dallas, TX 75234; (214) 620-2780 for more information. □



X-Panda-Five

X-Panda-Five makes mobile operating a delight. With solid-state broadband transceivers available now, and no tuning necessary, would you like to change bands without having to get out of your vehicle? X-Panda-Five makes that possible. Just add resonators (from one to five) to your Hustler or up to three to your Hy-Gain, tune them for minimum SWR, and you are ready to change bands from inside your vehicle.

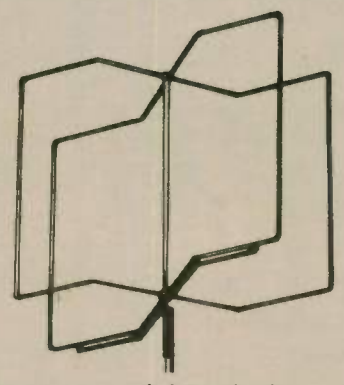
X-Panda-Five is also ideal for an apartment or a condominium antenna system. Using the metal railing or a suitable groundplane, this will make a workable antenna system. A multi-band antenna system for vans, campers, motor homes and travel trailers can also be assembled with the installation of the X-Panda-Five and proper resonators to your Hustler or Hy-Gain antenna. X-Panda-Five is priced at $14.95.

For more information, contact J.L. Industries, P.O. Box 030413, Ft. Lauderdale, FL 33303. □

Swiss Quad for 6M

TET Antenna Systems announces its Model SQ61. The Swiss Quad is a two-element quad with both elements driven. The elements and the phasing line between them are made of aluminum tubing. The larger diameter of the tubing gives improved bandwidth over conventional wire element quads. The elements are self-supporting, thus eliminating the usual support structure. This makes a lightweight antenna with low wind resistance.

The gain is higher than a three-element Yagi, but the turning radius is half that of a Yagi. It is ideal when space is restricted. Both elements have trombone sections, so they are easy to tune to favor any part of the band. Both



elements are grounded to the boom giving static discharge and lightning protection. The feed system matches 50 ohm coaxial cable without need for a balun. The price of the SQ61 is $69.95.

For further information contact TET Antenna Systems, 1924E W. Mission Road, Escondido, CA 92025. □

10-160M transceiver

NCG Co. announces its new HF 10-160 meter solid-state PLL transceiver.

Specifications include a four-channel frequency memory; three-way auto-scan; built-in dual VFO; IF tune; and CW AF filter. Frequency range: 10-160 meters; modes: SSB and CW; three-step tuning speed: 1 kHz, 100 Hz and 25 Hz.

The unit has a final stage input (PEP) of 200W and 100W; balanced type modulation; more than 40dB carrier suppression and more than 50dB sideband suppression. In receiving, there is a Delta F range of more than ±1 kHz and an IF tune range of more than ±1 kHz. Audio output power is .5W (internal speaker) and 1W (external speaker); impedance is 8 ohms.

For information on price and/or ordering, contact NCG Co., 1275 N. Grove St., Anaheim, CA 92806. □

VISIT YOUR LOCAL RADIO STORE

CALIFORNIA

Ham Radio Outlet
2620 W. La Palma
Anaheim, CA 92801

Henry Radio
931 N. Euclid
Anaheim, CA 92801

Ham Radio Outlet
999 Howard Avenue
Burlingame, CA 94010

Jun's Electronics
3919 Sepulveda Blvd.
Culver City, CA 90230

Fontana Electronics
8628 Sierra Avenue
Fontana, CA 92335
(714) 822-7710 or (714) 822-7725

Jun's Electronics
7352 University Ave.
La Mesa, CA 92041

Henry Radio
2050 S. Bundy Dr.
Los Angeles, CA 90025
(213) 820-1234

Ham Radio Outlet
2811 Telegraph Ave.
Oakland, CA 94609

The Radio Place
2964 Freeport Blvd.
Sacramento, CA 95818
(916) 441-7388

Ham Radio Outlet
5375 Kearny Villa Road
San Diego, CA 92123

Quement Electronics
1000 S. Bascom Avenue
San Jose, CA 95128

Shaver Radio
1378 S. Bascom Avenue
San Jose, CA 95128
(408) 998-1103

Tele-Com/Alltronics
15460 Union Avenue
San Jose, CA 95124
(408) 377-4479 or 371-3053

C&A Roberts, Inc./Radio King
25326 S. Crenshaw Blvd.
Torrance, CA 90505
(213) 534-4456 or (213) 775-7684

Ham Radio Outlet
6265 Sepulveda Blvd.
Van Nuys, CA 91401

HAWAII

Honolulu Electronics
819 Keeaumoku Street
Honolulu, HI 96814
(808) 949-5564

ILLINOIS

Aureus Electronics Inc.
1415 N. Eagle
Naperville, IL 60540

MASSACHUSETTS

TEL-COM Communications
675 Great Road
Littleton, MA 01460
(617) 486-3400 or 486-3040

MICHIGAN

Purchase Radio Supply
327 E. Hoover Ave.
Ann Arbor, MI 48104
(313) 668-8696

Henry Radio
211 N. Main Street
Butler, MO 64730

NEVADA

Jun's Electronics
460 E. Plumb Lane, #107
Reno, NV 89502

NEW YORK

Radio World, Inc.
Oneida Cnty. Airport Terminal Bldg.
Oriskany, NY 13424
(315) 736-0184
(800) 448-9338/out-of-state

OHIO

Universal Amateur Radio, Inc.
1280 Aida Drive
Reynoldsburg (Columbus), OH 43068
(614) 866-4267

TEXAS

Appliance & Equipment Company
2317 Vance Jackson Rd.
San Antonio, TX 78213
(512) 734-7793

ADVERTISERS' INDEX

Rotor, control box

Telex Communications has available a Ham 4 Rotor and control box designed specifically for the visually handicapped.

The control box is a self-contained fully automatic unit. All function controls are clearly marked with braille. To operate, simply turn the on/off switch located in the center of the front panel, rotate the large pointer knob located on the left of the front panel to the desired heading, and then depress the "start" button which is located to the upper right of the front panel. The control circuit, which was activated by depressing the start button, automatically releases the brake, activates the rotor, rotates the rotor to the desired heading, shuts down the motor and following a 5-second delay, the brake is reset. From the time the "start" button is released through the motor shutdown, a tone is sounded to alert the operator to the fact that the system is functioning.

The complete unit, a control box and modified Ham 4 rotor is priced at $239.95 plus shipping. The control box separately is $139.95 plus shipping. The control box will work with any existing Ham AM, Ham 2, Ham 3, Ham 4 or tail twister rotor after slight modification. The present potentiometer located in the rotor must be replaced with a 1,000 ohm potentiometer with some wiring changes. In the event you plan to modify your present rotor, instructions and the potentiometer are available from Telex Communications for $11.

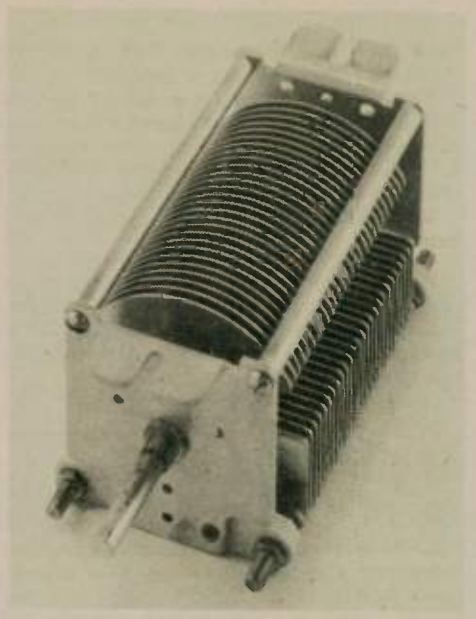
To order or obtain additional information, write or telephone: Telex Communications, 8601 Northeast Hwy., Lincoln, NE 68505; ATTN: Al Caplan. Or phone 402-467-5321. □

Air variable capacitors

A new series of high-power air variable capacitors offering plate spacing from 0.030 to 0.120 inch, and a wide variety of frame sizes and capacities is being introduced by All Star Products, Inc. of Edgerton, Ohio.

Designated the M-73 Series, each capacitor is constructed of ceramic, aluminum and brass components. Construction features precision machined spacers, threaded brass rod and collar construction plus stamped aluminum end plates. Each is available with or without ball bearings, and insulated shafts are available.

All Star Products pioneered the concept of swaging plates on rotor and stator bars in 1925 — a revolutionary design which led directly to



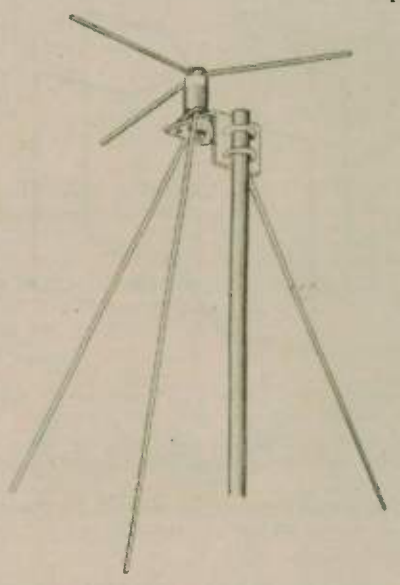
the development of "midget" broadcast sets.

In addition to the new M-73 Series, All Star Products currently manufactures air variable condensers in an extensive array of sizes and styles for both military and commercial applications. They also custom design and manufacture special capacitors to customer specification.

For more information on the new M-73 Series or other Air Variable Condensers products, write All Star Products, Inc., P.O. Box 216, Edgerton, OH 43517. □

Monitor antenna

Recognizing the growing demand by owners of scanner monitor receivers for well-per-



forming, inexpensive, external monitor antennas, The Antenna Specialists Co. has introduced the MON-64 DISCAN™ — a new lightweight model that can increase base station reception by as much as 100 percent.

The MON-64 DISCAN provides excellent reception on the popular low band, VHF, UHF and "T"-band frequencies, from 25-512 MHz. Scanner listeners are discovering that the whip antenna that comes with the radio often is inadequate for monitoring distant stations, or for the increasing number of low-powered portables in the public safety areas. The MON-64 significantly improves reception of such stations.

Weighing less than 2 lbs., the DISCAN antenna is easy to install and comes complete with SO-239 connector and double U-clamp bracket; cable is not provided. The antenna mounts easily on any pipe or tubing up to 1¼ inches in diameter.

Suggested list price of the MON-64 is $19.95. For complete specifications, write to The Antenna Specialists Co., 12435 Euclid Avenue, Cleveland, OH 44106. □

Impulse Suppressor

A new series of bulkhead-style Impulse Suppressor for coaxial lightning protection was recently introduced by PolyPhaser Corporation. This new IS-B50 Series can easily replace older air gap-type arrestors and can be mounted on up to ⅛" thick bulkhead panels. These weatherproofed gas tube protectors are designed for repeaters, base stations, and R.O.'s to 1 GHz with typical (N) 0.1dB loss and 1.1 to 1 VSWR. Their hefty 20kA multistrike and 50 nanosecond turn-on time make for protection against most direct strikes possible. They come complete with weather washer and stainless steel hardware in both N and UHF fittings. A tower mounting kit is also available. Other PolyPhaser Corporation Impulse Suppressors for data, CATV, CCTV and military.

Contact R. Block, 1500 West Wind Blvd., Kissimmee, FL 32741. Telephone: (305) 396-1807. □

Florida

The Sarasota Amateur Radio Association proudly presents the approved ARRL Annual "Sarasota Hamfest," Saturday, 15 January and Sunday, 16 January 1983, in the Sarasota Exhibition Hall, 801 North Tamiami Trail, Sarasota, Florida.

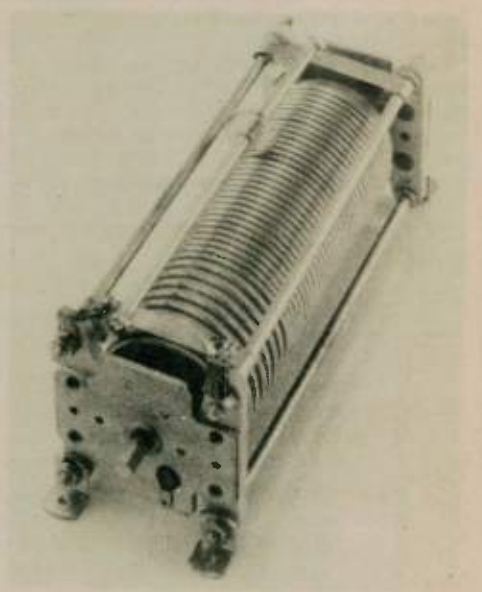
Set-up for booths and tables on Friday, 14 January from 4:00 p.m. till 8:00 p.m. Doors open to the public at 8:30 a.m. on Saturday, 15 January. Commercial booth donation is $60 for the two days and includes free admission. Tables: donation of $12 for the two days includes one free admission with each table, no one-day tables. General donation admission: advance $3, door $4 for the two days. Food service in the exhibition hall is available.

For information or reservations, write: Sarasota Hamfest, P.O. Box 3182, Sarasota, FL 33578. For confirmation or information, please enclose an SASE. □

Roller inductors

The D-RI-28, a 28 microhenry inductor designed for operation up to the 2kW level, is the first of a new line of roller inductors being introduced by All Star Products, Inc. — one of the pioneer manufacturers of air variable condensers.

Designed with a ceramic core and antifriction bearings, the new roller inductor features a variable pitch winding for higher Q. The variable pitch design also prevents crowding of the inductance tuning rate at the low end of the range.



All Star Products, currently a leading producer of tuning condensers, air variable capacitors and small assemblies for the electronics industry, has been involved with the Broadcast Set Industry since 1925, when they revolutionized the design of the variable condenser by swaging the plates on rotor and stator bars rather than using threaded bars and collar spacers. This innovation not only proved more efficient and economical, it also provided the breakthrough required to permit the design of "midget" radio sets.

For more information on the new D-RI-28 roller inductor, write All Star Products, Inc., P.O. Box 216, Edgerton, OH 43217. □

CONTESTS

1983 — World Communications Year

On 19 November 1981, the United Nations General Assembly adopted a resolution proclaiming 1983 a "World Communications Year: Development of Communications Infrastructures." The basic objectives of the WCY are: 1) to provide the opportunity for all countries to undertake an in-depth review and analysis of their policies on communications development, and 2) to stimulate the acceierated development of communications infrastructures.

In support of this event, an Amateur Radio operating activity, sponsored by the Potomac Valley Radio Club (USA), is being announced. This activity will promote all forms of domestic and international Amateur Radio communications.

The scoring will require knowledge of the location of the three ITU regions and 75 ITU zones for broadcasting. The ITU regions are: 1) Africa, Europe and USSR; 2) North and South America; and 3) Asia and Pacific.

The ITU zones and amateur call sign prefixes are listed in the IARU Radiosport Championship rules. You may send an SASE or IRC to the address shown below for a copy of a map showing regions and zones.

Rules

Eligibility: All licensed radio amateurs worldwide.

Object: To contact as many other amateurs anywhere in the world using 1.8 MHz to 275 GHz excluding the 10, 18 and 24 MHz bands.

Date: The activity will be the 24-hour period from 0001 UTC to 2400 UTC on Saturday, 15 January 1983.

Categories: There will be two categories: single operator and multiple operators. Both categories are mixed-mode. Only stations using one transmitter are eligible for an award.

Exchange: All stations will send their ITU region and zone. The following stations would send the listed exchanges: DL1AA — 128; W1AAA — 208; JA1AA — 345.

Valid contact: The same station may be worked once on each band. Telephony (inclucing SSTV) and telegraphy (including RTTY) emissions count as separate bands. No cross-emission contacts are allowed.

Multipliers: The ITU zones worked on each band.

QSO points: QSO points are as follows: 4 — outside your ITU region; 2 — inside your ITU region, outside your zone; 1 — inside your ITU zone.

Scoring: Multiply the total QSO points for all bands by the total zones worked for all bands.

Reporting:

a) All entrants are to use a suitable log form and summary sheet of their choice.

b) Logs should indicate times in UTC, bands, calls, complete exchange and QSO points for each QSO. Multipliers should be clearly marked in each log. Cross-check sheets (dupe sheets) are required if more than 200 QSOs are made on any band.

c) Summary sheets should be a single page and show number of QSOs, QSO points, and zone multiplier for each band and the total score. The summary sheet must contain the entrant's call sign, region, zone, name and address. Multiple operator stations must list the name and call (if any) of each operator. Entries for the special UHF/microwave award should be indicated on the front of the summary sheet with a description of the basis of the UHF/microwave award written on the back of the summary sheet.

d) Entries must be postmarked by 28 February 1983. Mail entries to PVRC, P.O. Box 337. Crownsville, MD 21032 USA.

Awards: A plaque will be awarded to the high-score station of each category (single and multiple operator) in each of the three ITU regions. A certificate will be awarded to the high-scoring entrant of each category in each ITU zone. In addition, a certificate will be awarded to one UHF/microwave station of each ITU zone judged to have displayed the most outstanding achievement. Members of PVRC may not receive awards.

Conditions of entry:

a) Each entrant agrees to be bound by the provisions of this announcement, by the regulations of his licensing authority and by the decisions of the Amateur Radio Activity Awards Committee.

b) An entry may be disqualified if the overall score is reduced by more than 2 percent. An entry *will* be disqualified if more than 2 percent of duplicates are left in the log. A penalty of 8 QSO points will be assessed for each duplicate QSO or for each miscopied call sign or exchange found during the Awards Committee log checking. □

Radio Club of Panama anniversary

In celebration of the Radio Club of Panama's (RCP) 11th anniversary, a contest will be held 27-28 November 1982. The contest will last from 1200 GMT, 27 November to 2359 GMT, 28 November. Operation will take place on 10, 15, 20 and 40 meters; mode will be phone — both English and Spanish will be used.

Exchange: call, handle, RS signal and QSO number (Ex.: 5.9.002). Call: CQ Contest — 11th Anniversary of Radio Club of Panama.

QSO per continent: America and surroundings — 10 QSOs + 1 control station; Europe — 6 QSOs + 1 control station; Africa, Asia and Oceania — 4 QSOs + 1 control station. All QSOs or contacts have to be members of RCP. HP1-RCP control station (main) is valid for 2 QSOs.

Send log and 3 IRCs to: Radio Club of Panama, P.O. Box 10745, Panama 4, REPUBLIC OF PANAMA; Attn: HP1MJE — Contest Manager. Logs must be received by 30 January 1983. □

Zero District QSO Party

The Zero District QSO Party will be held 8-10 January, from 2000Z, Saturday to 0200Z, Monday.

The QSO party is organized by the Mississippi Valley Radio Club. Stations outside of Zero District will work Zero stations only; Zero's may work any station. The same station may be worked once on each band and each mode. Exception: Mobile stations may be worked each time they change counties.

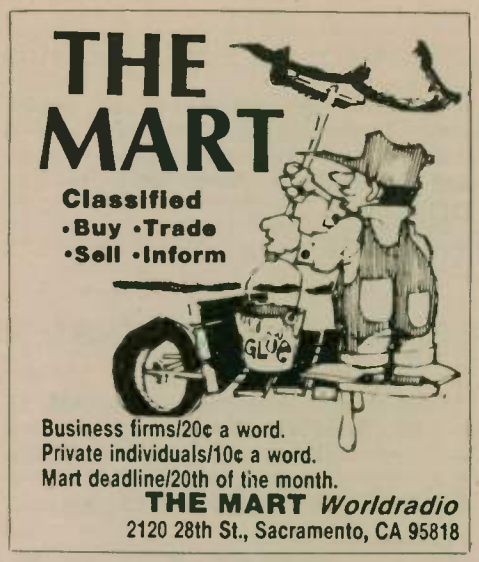
All stations exchange RS(T) and ARRL section. Zero District stations also must send county.

To score, multiply Zero District counties by contacts. Zero's score by adding ARRL sections, Zero District counties, and DXCC countries worked and then multiplying by total contacts.

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

Certificates will be issued to each entrant who submits a log and SASE. Endorsements will be given for high score in each ARRL section, DX country and Novice/Technician Class.

Mail logs by 15 February to W0SI, 3518 W. Columbia, Davenport, IA 52804. Send SASE for log forms or results. □



MOBILE IGNITION SHIELDING, provides more range with no noise. Available most engines in assembled or kit forms, plus many other suppression accessories. Free literature. ESTES ENGINEERING, 930 Marine Drive, Port Angeles, WA 98362.

KDK 2030 — $265.95. Azden 4000 — $279.00. Free catalog on metal detectors. CHUCK'S AMATEUR RADIO SUPPLY, Box 44, Madera, CA 93639. (209)674-1435 daily.

WORLD TRAVELERS: Send for your free sample copy of "International Travel News." P.O. Box 160568, Sacamento, CA 95816.

QSLs by W6BA — "Customized" $19.75 per 1000. Star Route 2, Box 241, 29 Palms, CA 92277.

WOW! LARSEN 2M 5/8 magnet or trunk lid mount antennas, any style, $36 complete, postpaid. Check or M.O., no COD. AMATEUR ACCESSORIES, 6 Harvest Ct., Flemington, NJ 08822. (201) 782-1551.

TRS-80 AMATEUR RADIO SOFTWARE for Model I/III. Finest selection in the country! Super-Log, Super-Duper, Antenna Anatomy, Morse Code Trainer, etc. Priced $14.95-$24.95. SASE for free color catalog. MICRO-80 INC., 2665 Busby, Oak Harbor WA 98277.

SUBSCRIBE TO THE *DXers Magazine.* Gus Browning, W4BPD, editor. Only $15.00 per year. The DXers Magazine, Drawer DX, Cordova, SC 29039.

BUYING OR SELLING? An ad in **Worldradio** makes it happen FASTER.

QSLS. QUALITY AND FAST SERVICE FOR 22 YEARS. Include call for free decal. Samples 50¢. Ray, K7HLR, Box 331, Clearfield, UT 84015.

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THE BEST HAM RADIO/PERSONAL COMPUTING INSIDER NEWSLETTER IN THE BUSINESS! Published twice a month: $18.00/year. Twice as many pages as Westlink Report! (Sample: FREE!) THE W5YI REPORT; PO Box #10101W; Dallas, TX 75207.

The SOCIETY OF WIRELESS PIONEERS, Inc., invites all professional operators, active or retired, military or commercial, to join the world's largest organization of its kind. Many active nets. Write Box 530, Santa Rosa, CA 95402 for details or send $1 to pay postage on sample SPARKS JOURNAL.

WYOMING AND UTAH RANCH LAND. Wild horses, antelope, deer. Near paved road. 10 acres — $60 down, $60/month. FREE information, maps, photographs. (Offer void in Calif.) Will trade equity for ham gear, home computer, test equipment, etc. Owner — Dr. Michael Gauthier, K6ICS, 9550 W. Gallatin Road, Downey, CA 90240.

STUDYING FOR NOVICE EXAM?? Be confident! Before taking the real exam, prepare yourself with our 10 Novice Practice Exams. 200 Questions and Answers. Only $8. ARPRESS, Dept. W12, 380 Wilbanks, Rome, GA 30161.

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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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ATTENTION . . . . ICOM & KENWOOD OWNERS! For FREE Information on our fantastic separate Newsletters, send S.A.S.E. to: USERS INTERNATIONAL RADIO CLUB, 364 Kilpatrick Ave., Port St. Lucie, FL 33452 (305) 878-7296.

EMBROIDERED EMBLEMS, custom designed club pins, medallions, trophies, ribbons. Highest quality, fastest delivery, lowest prices anywhere! Free info: NDI, Box 6665 L, Marietta, GA 30065.

WANTED — old radio transcription discs. Any size, speed, subject. Send full details & price. W7FIZ, Box 724, Redmond, WA 98052-0724.

SAFETY BELTS professional lineman (Klein) with adj strap. Forged rings. 4000 lb test. Waist size? $110. Ppd. Free specs. AVATAR CO. (W9JVF), (317) 359-5278, 1147 N. Emerson, Indianapolis, IN 46219.

SELL — MINT DRAKE-C-LINE, R4C-T4XC-AC4-MS4, Looks new, recently factory aligned, low hrs.—$650. Frank, KBØW, 11058 Ridge Road, Nevada City, CA 95959. (916) 272-7203 day, (916) 265-3948 nite.

TOWERS — Design, calculations, building permits, Registered Civil Engineer; W6BFO, 7112 Deveron, Canoga Park, CA 91307, (213) 340-4411.

HENRY 2K-4 LINEAR, 80-10m., mint — $895. Hy-Gain 204BA new, in box — $175. Collins F455Y21 filter for KWM2 — $50; F455FAØ5 500 Hz CW filter — $75. Kenwood CW filter (narrow) for TS12Ø, TS13Ø — $50. Used 4BTV — $60. Four-foot copper clad ground rods — $3 each, 5 for $12.50. Hy-Gain 18AVT vertical — $75. Derek, KI6O, (916)965-1027 days, (916)965-4904 eves., Sacramento, CA.

INTERESTED IN QRP? Free fact-filled information booklet for large SASE to: QRP/ARCI, Box 12072, Capitol Station, Austin, Texas 78711-2072.

THE N9AM DX ASSISTANT is for you, if you want to eliminate the drudgery of DX record-keeping, and have the TRS-80 with 48K and dual drives. This brand new DX program keeps records for all bands and modes (plus special mode if you work one), but that's NOT all! Will prepare a complete summary of your DX statistics, worked & confirmed, by band & mode! NEED list for any band and mode!! Customized beam heading chart! Keeps up to 370 countries & 1000 prefixes! 40-Track, DD disc, only $24.95 — Model I version (two disc set) $29.95 — Customized for you — include your call. Visa/MC are O.K. Need more info? Please write us! THE AMATEUR'S CUSTOM SOFTWARE — Box 121 — Howe, IN 46746.

STOP LOOKING for a good deal on Amateur Radio equipment — you've found it here — at your Amateur Radio headquarters in the heart of the Midwest. Now more than ever where you buy is as important as what you buy! We are factory-authorized dealers for Kenwood, Drake, Yaesu, Collins, Wilson, Ten-Tec, ICOM, Dentron, Hewlett Packard Calculators, MFJ, Tempo, Regency, Hy-Gain, CushCraft, Swan and many more. Write or call us today for our low quote and try our personal and friendly Hoosier service. HOOSIER ELECTRONICS, P.O. Box 3300, #9 Meadows Center, Terre Haute, IN 47803. (812) 238-1456.

AZDEN PCS300 $279 ppd. HALE'S SALES & SERVICE, 1509 Poplar, Lebanon, PA 17042.

TELETYPEWRITER gears, ribbons, manuals, parts, supplies and toroids. SASE list. Buy unused parts. TYPETRONICS, Box 8873, Ft. Lauderdale, FL 33310 N4TT.

SOLID BRASS BELT BUCKLES. Name or call. One line — name or call — $8.00. Two lines, name and call — $9.00. Add $1.00 postage. S. Slonim, 320 Rose St., Massapequa Park, NY 11762.

ELECTRONIC PARTS CATALOG. IC's, transistors. Send first class stamp to ALDELCO, 2789 Milburn Ave., Baldwin, NY 11510.

MIRROR IN-THE-LID, and other pre-1946 television sets, picture tubes, parts, magazines wanted for substantial cash. Especially interested in any RCA "TRK", G.E. "HM", or Westinghouse "WRT" series set. Arnold Chase, 9 Rushleigh Road, West Hartford, CT 06117. (203) 521-5280.

CERTIFICATE FOR PROVEN TWO-WAY RADIO CONTACTS with amateurs in all 10 USA call areas. Award suitable to frame and proven achievements added on request. Send $2 (USA) or $3 (DX) to cover certificate cost. W6LS, 2814 Empire Ave., Burbank, CA 91504.

CODE PROFICIENCY DRILLS are transmitted from WB3IVO, BRASS POUNDERS ARC, each Saturday and Tuesday starting 0200Z on 3560 kcs. Each Saturday and Sunday starting 2000Z on 7060 kcs. Monday thru Friday starting 1930Z on 14060 kcs. Speed ranges from 20 to 60 WPM.

MONROVIA BASIC RADIO. Ham & SWL accessories. Hours: TWThF 1900-2200; Sat. 1000-1700. 620 S Myrtle, Monrovia, CA 91016. (213) 359-2986.

ATTN: BAKERSFIELD, CA. MONROVIA BASIC RADIO local phone: 871-1764, eves.

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SELL COLLECTION OF 2000 NEW RECEIVING TUBES, including hard-to-find, only $1 each. Send list of your needs for availability. W5QJT, P.O. Box 13151, El Paso, TX 79912.

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FOR SALE: SWAN 500 with AC power supply, mic and VOX: good condition — $175.00. Mark Parma, 5896 Hall, Corpus Christi, TX 78408.

FAST, DEPENDABLE MAIL ORDER??? You bet! Semiconductors, parts, ham and computer accessories. Surplus goodies, too! Free 54 page Catalog. THE PARTSTORE, Dept. 140, 999 44th St., Marion, IA 52302.

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MULTI-BAND DIPOLE 160M-10M (WARC), single coax feed, Model KT5B $59.95, also KT7B Bal feed line KW Line — Order from KILO-TEC, P.O. Box 1001, OakView, CA 93022. (805)646-9645 Info Available.

AMATEUR RADIO REPAIR calibration — experienced, licensed, reasonable. ROBERT HALL ELECTRONICS, W6BSH, P.O. Box 8363, San Francisco, CA 94128. 408/292-6000.

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YOUR NEW AZDEN PCS-4000 is here! Only $299 brings you this incomparable, compact microprocessor-controlled 2m mobile or base beauty. Check, M.O., VISA/MC. Free shipping U.S.A. AMATEUR ACCESSORIES, 6 Harvest Ct., RD. 7, Flemington, NJ 08822. (201)782-1551.

MODERNIZE YOUR HW-101, SB-102 and etc., with receiver incremental tuning (RIT) shifts receiver frequency to tune in stations that are slightly off frequency without shifting the transmitter frequency. RIT kit comes complete with simple step-by-step instructions for only $15.90 postpaid, or send $3.00 for instructions. VISA/MasterCharge. PROTRONICS, 20 Monte Vista, Buckley, WA 98321. 1-206-829-0056.

HW-101 good condition, with Protronics Digital Readout, RIT Kit, WWV Kit and Bezel Kit, factory installed. $449 plus shipping. VISA/MasterCharge OK — Al Staggs, 20 Monte Vista, Buckley, WA 98321. 1-206-829-0056.

AMATEUR ACCESSORIES: Our name says it all! "FALL"ing prices — new Azden PCS-4000 — $299; Larsen 2m 5/8 wave mobile magnet or trunk lip mount antenna — $36; W2AU Balun — $13; MFJ 989 3KW tuner w/roller indicator — $283; MFJ 816 HF Watt/SWR meter — $27; Mini-quad HQ-1 — $137. Free Shipping. Check, MO, VISA/MC, AMATEUR ACCESSORIES, 6 Harvest Ct., RD 7, Flemington, NJ 08822, (201)782-1551.

KEYER PADDLES, Iambic, hand crafted for the Elite, with more features, and nicer action. A contest winner. Write E. SNYDER, KA5AEQ, 213 W. Davis, Sapulpa, OK 74066.

SOLAR CELL BATTERY CHARGERS, great for 12 Volt Radio Stations! Panels, Inverters, Regulators, SASE Gene Hitney, W7LFC, Campwood Rt., Prescott AZ 86301.

NOTICE NOTICE: To celebrate our ninth year in business we give a FREE Larsen Antenna to our customers send an SASE for full details (Business size). NARWID ELECTRONICS, 61 Bellot Road, Ringwood, NJ 07456.

WANTED: Ham-II Antenna Rotor. Control box unimportant. Rotor must be in good condition, and 8 wire cable. State condition and price first letter. K4TIV, 1207 Barton Street, Johnson City, TN 37601.

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POOR MAN'S VOICE PROCESSOR/ACCENTUATER for MC-50 microphone — $9.95. KD7X, 405 Whittier, Silverton, OR 97381.

FOR SALE — COMPLETE H.F. STATION. Yaesu FT-101E, FV-101B and Landliner phone patch. Also Telytype station model 19 and 14 with Dovetron MPC-1000 T/U. Ham-M rotator. Will sell all or part, and will ship all but Telytype. Vick Martin, (213)881-1058.

DELAY BEING A SILENT KEY! Avoid shock! Many uses! The wonderful Wireless Model GFD-1 Ground Fault Detector checks loss of ground at your ham gear and appliances. Meantime enjoy checking; Continuity, Wide range of AC-DC voltage, Audio, Pulse, Static charges, Insulation leakage, Capacitors, most Diodes, Transistors and many other devices. Specs: 20,000 gain AMP operated LED at full glow from 6-220V to probe wtih 2 Megohm isolation. Use two AAA cells. Material: Potted electronics, Threaded chromed brass, Nylon, adjustable pocket clip. Size: ½" x 6" Made in U.S.A. with love and care by Ham and Family since 1976. Shipment or acknowledgment 10 days. Our patent Number 4,006,409. SASE for more info. Check, Moneyorder $12.95 Floridians add 5% Tax. You'll love it or your money back! BERT ADAMS ENTERPRISES, P.O. Box 520143, Miami, FL 33152-0143.

FOREIGN QSL CARD HANGERS, 12-18 pocket plastic holders, card size 4¼ x 6, $10.00 postpaid. RCO PRODUCTS, BOX 7333, Kansas City, MO 64116.

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BUMPER STICKERS: "dahdidahdit dahdahdidah" or "Hams Do It With Frequency" — $1.00. D. Mollan, WB7FDE, 7805 NE 147th Ave., Vancouver, WA 98662.

1983 AMATEUR RADIO WALL CALENDARS, 13.5 x 19.5", for sale at $3.50 each, including USA postage. Ample space for date blocks to note events. Mailed in individual wrappers. Send completed mailing label for each calendar ordered; if it is a gift, show on label you sent it. Order from W6LS, 2814 Empire, Burbank, CA 91504.

DRAKE SATELLITE RECEIVER with modulator installed only $969. Satellite and Microwave TV catalog $1.00. TEM Microwave, 22518 97th Ave. No., Corcoran, MN 55374, (612) 498-8014.

GROUND RADIALS WORK — Solve your vertical antenna radial problems with the fantastic ground plane one (GP-1). A 10" diameter, 24-point cast aluminum buss that fits any 2" diameter or smaller mast. Radial problems solved for only $24.95. Send an SASE for photos and brochure. Lance Johnson Engineering, P.O. Box 7363, Kansas City, MO, 64116.

DRAKE SSR-1 RECEIVER maintenance manual wanted. W. Ellinwood, W1MPY, 758 Pleasant St., Athol, MA 01331.

FOR SALE: 2M TRANSCEIVER. Yaesu FT207R, NC-9B charger, antenna. Excellent condition — $110. KC5MI, 304 Tansy, Borger, TX 79007.

COPY SATELLITE PHOTO, weather maps, press photos on our fax machines. We provide the information and the equipment. Catalog $1.00; teletype machines, parts, supplies and manuals. Catalog $1.00: ATLANTIC SALES, 3730 Nautilus Ave., Brooklyn NY 11224. (212)372-0349 — Ask for ED, "WA2FBY".

COMPUTERS & AMATEUR RADIO is the newest magazine for Hams interested in computers in the shack. Subscribe today: 1 year (6 issues) $4.00. Send to CAR, 1202 E. 23rd St., Lawrence, KS 66044.

APPLE COMPUTER NOVICE TUTOR. CW, FCC sim. tests, hi-res, more. Complete, professional. For school, club, individuals. DOS 3.3, 48K required. Terrific value! Only $19.95. E-T-M, Box 111, Mahomet, IL 61853.

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BUMPER STICKERS — "My Favorite Radio Station is (your call sign)." Great to display on car, in shack, anywhere! A nice gift for your ham radio friends. Just $3. ARPRESS, 380 Wilbanks, Rome, GA 30161.

NEED MANUAL OR SCHEMATIC for WRL Globe-Chief model 90 transmitter. Also new 807 tubes at reasonable price. W8CAE, John Chenoweth, 9130 Yankee St., Miamisburg, OH 45342.

YAESU FT-207R: 2m HT, like new, just factory realigned; new battery; wall charger; plus desk-top quick charger NC-2; complete — $250. VoCom 2M amplifier: 2W in- 25W out; like new — $60. Drake TR-22: 2m xcvr w/nicads, mike, both AC & DC cords — $65. Antenna tuner, w/roller inductor, 80m thru 10m, full KW, home-brewed — $75. RUSS, W6HZJ. (714)728-8925.

CLOSING STATION — MINT NEAR NEW EQUIPMENT — purchased new, Drake MN2700 — 5 months old — $245; Yaesu YS 2000 — $69; A3 antenna + 40meter — $135; HD73 rotor — $68; Shure 444D — $39; MFJ-250 — $24; Drake -TV3300LP — $24; MFJ-260 — $20; "Master" key/plug — $22; "NYE" -training key — $19; MFJ -clock — $24. You ship. N6AUK. (714)582-7659.

DUPERMAN — REAL TIME MACHINE LANGUAGE CONTEST DUPE CHECK PROGRAM — Checks dupes during contest, prints dupe sheets afterwards. Checks 600 QSOs per second. Stores 2750 QSOs per band. Requires TRS-80 Model III with 48K and either 1 or 2 drives. Single disk version $29.95, double disk version $39.95, postage paid. Florida residents add 5%. Check or MO to Tim Cotton, N4UM, 5680 SW 16 St., Plantation, FL 33317.

HOSS-TRADER ED PLAYS SANTA CLAUS, "Radios far below dealer cost." Telephone the Hoss last, for the best deal. BIG SALE: New Drake TR-7A regular $1699.00, cash $1299.00. New Dentron Clipperton-L linear $539.00. New Astro-Swan 100-MXA solid state transceiver, regular $699.00, cash $399.00. ICOM IC-2A walkie-talkie, $199.00. Azden display PCS-4000 $279.00. HAM-4 rotor $169.00. New ICOM-730 regular $829.00, cash $619.00. New Drake TR-5 $599.00. ICOM 25-A $289.00. Used 830-S $695.00. New Drake L-7 linear $875.00. New KDK model 2030 $259.00. HYGAIN ANTENNA SALE: TH5DXS $209.00; TH3MK3 $197.00; TH7DX $329.00; 204BA $165.00. New ICOM 720-A regular $1349.00, cash $1039.00. MOORY ELECTRONICS CO., P.O. BOX 506, DeWitt, AR 72042, (501)946-2820.

10 MHz NOW OPEN FOR USA. We have FT-243-A type of crystals etched for doubling and tripling. Your selection of Frequency 3 for $10 postpaid. E/T LABS, 2921 Loyola Dr., Davis, CA 95616.

SELL ROBOT 400, excellent condition. $495. Duke Wright (KC9AE), 2331 Balsam Way, Green Bay, WI 54303. (414)499-6626.

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SELL — ICOM 251A 2m all mode, mint — $450.00 WB3KUH, 1806 Willann Road, Rosedale, MD 21237. (301)866-8674.

FOR SALE: 10 meter FM, converted Hygain transceiver, covers 29.26-29.70 MHz with repeater offset, 10 watts out; 100 watt RCA Series 500 Super Carfone on 52.525 MHz; 30 watt Motorola U43GGT; 30 watt RCA Series 700 Super Carfone on high band. PRC25/RT505. All working and with accessories. WB5RUA, J. Coffman, Rt 1, Warren, AR 71671; 501/226-6009.

ECONOMICAL TWO METERS — We have a limited quantity of two fine synthesized transceivers: KDK 2015R, (1/15W, 4 mem/scan, tone encoder, microphone.); and AMCOMM S2-25, (2-25W vari. pwr., touch-tone pad, commercial grade). Both are new and warranted for ninety days. Choose either one for $225, and receive free a Larsen 5/8 Wave w/LM mount. Add $7 for magnetic or trunk lip mount. Base operation is easy with matching AC/PS: KDK FMPS-4R $29; and AMCOMM BSM-15, (inc. speaker) $49. HF VALUE PACKAGES for the HFer. We have solid state on a budget: TEN-TEC: 540, (80-10, 200W.), 252G PS, 215P microphone; $510. 509, (80-10, 5W.), 208 CW/fil., 206 calibrator, 210 PS; $335. Century 21, (75W, CW.), 276 calibrator; $300. ALDA: 103 transceiver, (80-20, 250W, CW/SSB.), NB/PC-701, calib/PC-801, AC/PS-115, microphone; $310. Also ACCESSORIES — TEN-TEC: KR-50 Ultramatic w/ACPS; $89. 277 tuner; $70. 206 calibrator; $19. 208 CW filter; $19. Also, Larsen, Nye and Unadilla at 25% Discount. All equipment is factory fresh and warranted. DELTA/COMM, 11 Berkley Road, Scotia, NY 12302.

SELL, THREE-BAND VHF DRAKE UV-3 TRANSCEIVER. Brand new in original unopened carton, with external Astron power supply. First check for $750.00 prepays to you via UPS. Peter Onnigian, W6QEU, (916)392-8964.

WOULDN'T IT BE GREAT to pick a winner for AMATEUR OF THE YEAR at the Dayton Hamvention and get free tickets, too? Write for details. HAMVENTION, P.O. Box 44, Dayton OH 45401 — Attn. Awards. Do it now!

CASH waiting here for your TENTEC CENTURY 21 if excellent condition and priced right. WD4GSJ, 10137 Brownwood, Orlando, FL 32817.

HEATHKIT (HW-16) CW TRANSCEIVER, manual, key, novice crystals, excellent condition. $90.00 plus shipping. Rudy Krstulich, 10137 Brownwood, Orlando, FL 32817.

IMPRINTED SPORTSWEAR especially designed for radio operators. Call letters on caps, sport shirts, jackets, T-shirts, decals, bumper stickers, license plates, etc. Send call letters and quantity, and we will respond with prices and product description. No obligations, no minimums. PRINTED PRODUCTS, P.O. Box 545, Dept. W, Harrisonville, MO 64701, or toll-free 1-800/821-7822, in Missouri call collect 816/884-3003.

RTTY T.U. Computer compatible RTTY MODEM w/RS-232 I/O. Intro. price $89.95. Larry, KC7JJ, ESC PRODUCTS, P.O. Box 92, Redmond, WA 98052 (206)881-0709.

SUPER-SENSITIVE FIELD STRENGTH METERS: Specify right or left-handed model. $28.00 & $2.00 shipping. ELECTRONICS DESIGN CONSULTANTS, INC., P.O. Box 4031, Hampton, NH 03842.

PREFER ONLY 866A's in this old P/sply for more enjoyable QSO'ing. They used to work FB. Ones I get nowadays take out the fuses. Need recollections, tips on modifications. KA4LLN, Jim Blaske, Route 2-Box 213, Gainesboro, TN 38562.

WANTED: OLD BUGS for my telegraph and radiotelegraph key collection. I am trying to find each make and model of bug manufactured before 1950. Vibroplex, Martin, McElroy, Triplex, Electro, Bunnell, A-Z, McDonald, etc. Also need junkers for spare parts. Many thanks to everyone who has helped the K5RW Bug Collection grow. We still have a long way to go, so more help would be appreciated. 73 de K5RW, Neal McEwen, 128 Midway, Richardson, TX 75081.

COLLINS 55G-1 VLF PRESELECTOR for 51S-1 or KWM-380, new-boxed. List $890.00, sale $375.00. New-boxed ICOM IC-R70 general coverage receiver, list $749.00, sale $669.00; new ICOM IC-290H 2-mtr multimode $485.00; new ICOM IC-45A mobile 440 FM transceiver $359.00; new ICOM IC-740 HF transceiver $965.00. We accept VISA, M/C or check. Phone 704-524-7519, SLEP ELECTRONICS COMPANY, Highway 441, Otto, NC 28763.

ROSS $$$$ NEW SPECIALS: Yaesu FT-102 — $959.90; FT-901DM — $999.90; FT-ONE with FM-unit, XF8.9KC, XF8.9KCN, XF10.7KC, XF8.9KA, RAM unit — $2299.90; SP-901P — $49.90; ENCOMM HT-1200 — $229.90. Send SASE for more new and used specials. Closed Monday at 2:00. ROSS DISTRIBUTING CO., Preston, ID 83263, (208)852-0830.

SAN DIEGO AREA — beautiful 35' "A" frame mast — $30. Swan 350B, mint condition — $280. W6XM, 528 Colima, La Jolla, CA 92037.

CUBICAL QUAD TRI-BANDER — 9dB/2KW 3-element GEM QUAD like new. Used 2 months and factory replaced ice damaged arm. Not for severe snow/ice country. Sell for $185.00 (½ factory price), plus COD freight and this ad cost. $35.00 deposit required. R. Hamilton, KA6LHM/N6GRU 6268 Brevard Circle, Magalia, CA 95954. (916)873-2569.

ICOM 2-3-4 AT CASES. A form-fitting leather case to protect your investment. Instant battery removal and replacement. No bulky flaps. Accepts BP2 thru BP5. Your name and call imprinted. A low $29.95. Send check or M.O. For information call or write: 1-503-640-5456, Al Berg, WB7SIC, P.O. Box 25088, Portland, OR 97225.

ORIGINAL OWNER — MINT TEMPO 2020 transceiver — $450, and used Gonset 500 linear using 4-807s in final — $100. W8MFB, (616)458-2972 evenings. (Eastern Standard Time)

SELL: VIKING VALIANT, Viking Ranger, CE-20A, Lakeshore Bandhopper VFO, 458 VFO, Hallicrafters SX-101. James Bean, R.R. 2, Flandreau, SD 57028.

6 MTR. A.M. LAFAYETTE (HW 460) xceiver (like new) only $60.00. Lewalski, Apt. 30-A, 1200 Alpine, Walnut Creek, CA 94596.

KENWOOD TS-120S — $430; VFO-120 — $95; Dentron tuner 3000A — $190; Yaesu 2 mtr. 227R — $180; Tempo 220 — $100. Tony, N6AJA, P.O. Box 30521, Santa Barbara, CA 93105. 1-805-966-7858 eve.

OLD RADIO BOOKS, pamphlets, magazines, manuals. CQ, QST, Callbooks, license manuals, RSGB's. Some as old as 1925. Send SASE for list. P. Garvin, N8CJD, 2979 Limerick Road, Clyde, OH 43410.

SPECIAL NOTICE — Do you have computers as a hobby with your ham radio hobby? If so, send for our list of specialty items. Also in the near future a low-cost interface to put your computer on the air. SASE for our list pse. NARWID ELECTRONICS, 61 Bellot Road, Dept. WR, Ringwood, NJ 07456.

APPLE II COMPUTER OWNERS! The RADCOM PLUS+ PACKAGE consists of a quality TU INTERFACE that installs in the APPLE, connects to your rig and uses the most advanced, feature packed SOFTWARE ever developed for SENDING and RECEIVING RTTY and MORSE CODE. Detailed information from: ALEX M. MASSIMO, AF6W, 4041 41st Street, San Diego, CA 92105.

EMPLOYMENT

Classified ads for jobs wanted or positions offered will be run free of charge in Worldradio's MART.

OPPORTUNITY WANTED: I am looking for a company with a special need for an industrious, dedicated, tireless worker. 20 years with my previous employer. Interest, skills and experience in public relations, public speaking, management, sales, conducting seminars, search and rescue, writing and numerous technical skills. Interested in long term employment. Contact Hartley Postlethwaite, WB6CQW, HAPPY FLYERS, 1811 Hillman, Belmont, CA 94002. (415) 341-4000.

DELIBERATE & METHODICAL ELECTRONICS TECH. looking for work in the New Brunswick, NJ area. 19 years experience in various aspects of electronics. Have worked for RCA, USAF, Lockheed, Varian & Mattel. First phone with radar. Some college. Ed Jones, Jr. WB2DVL, 26 Phillips Road, Somerset NJ 08873.

COMMUNICATIONS TECHNICIAN: Immediate need for qualified bench tech to test and troubleshoot state-of-art HF/SSB and VHF/FM transceivers and accessories. Must have hands-on experience and work without direct supervision. Good benefits, pleasant conditions; moving to new quarters Dec. '82. Entry salary depends upon experience. US citizenship not required. Company also has openings for RF Design Engineer with track record and degree; International Salesman, bi-lingual (Spanish/English) familiar with HF/VHF equip lines. Your resume or typewritten letter will receive immediate attention. No phone calls. Write to: Ken Easley, Manufacturing Manager, STONER COMMUNICATIONS, INCORPORATED, P.O. Box 176, Rancho Cucamonga, CA 91730. (Equal Opportunity Employer).

COMMERCIAL RADIO AND TELEVISION MOBILE UNIT DESIGNER wishes to acquire assignments. Specialize in miniature designs for radio, tv; Live and/or tape, on-air or cable, plus have new design for Satellite UPLINK unit featuring a ten-meter dish packaged on a fifteen-foot long trailer. Have assembly facility on-call if requested. Please write; John N. MacInnes, III, WB1FPD, P.O. Box 4031, Hampton, NH 03842.

SENIOR PROGRAMMER RETIRING FROM UCLA at 62 years young seeks new full or part time opportunity in broadcast or data processing in the Los Angeles area to start in Feb. 1983. Have First Class Phone License and 2 years AM and FM broadcast transmitter operator experience in 1949 and 1950, and have been connected with computer programming from 1960 to the present. Bill Ziegler, AE6T, 6934 Enfield Ave., Reseda, CA 91335.