

# World Radio

Year 15, Issue 4

October 1985 • \$1

## Goldwater at HAMCON

(Excerpts from Senator Barry Goldwater's [K7UGA] speech at the Southwestern Division Convention)

"We should ask ourselves questions about Amateur Radio, and I think the questions have to have answers. The answers are going to have to come from today's amateurs and the young ones and the old ones we want to bring in.

"Where is Amateur Radio going when we're not quite filling the gaps? We're not bringing in enough new Novices, enough new amateurs. What can we do?

"I'm going to say some things to you that some of you will disagree with — some violently, some not so violently. But these thoughts come to someone who has spent over 60 years of his life in communications, and I'm very interested in maintaining the status of the Amateur Radio operator.

"Stop and think about it. I won't make this as a front-out statement, but I'll make a small bet that Amateur Radio operators have given more to the science of communications in this country than the so-called experts, those people who have been trained in the subject. Think back to the great contributions amateurs have made to communications, and then think ahead to what we're faced with today, and what kind of answers we're going to have to come up with.

"I don't mind telling you that in the conference we held between the House and the Senate on Armed Services questions, one of the biggest arguments came up over the subject of 'can we communicate?' Can the Navy communicate with the air, their surface ships and their submarines? Can the Air Force communicate with the Navy? Can the Army communicate with both of them?

"You know what the answer is. NO! Isn't that a sad commentary on this nation that supposedly leads the world in technology, and particularly in the field of communications, when we find ourselves tied up with the inability to talk with each other?

"Part of the answer is in politics. Part of the answer is in new people coming along to tell us your new ideas, then develop the new ideas, new circuits and so forth.

"I don't like the way we're not able to attract young people or older people to the amateur ranks. I very vehemently fought the no-code proposition when it came up. I have a strong feeling against doing away with the code, but you'll have to go through this again. So you older people, you middle-aged ones, you XYLS — give it some thought.

"What's your alternative? What else might we do? Well, we might make more communication facilities available to the Novice and we might give them a small segment of a band here and a small segment of a band there. Let them practice voice and use some of the new communications systems that we older people can

enjoy any time we want.

"In other words, make it possible for the Novices to get their fingers, to get their eyes and ears on some of the modern equipment. I think that when you bring that interest to them and develop an interest in the Novice, that might make them want to learn the code. After all, 5 wpm is not very difficult.

"These things about which I've been speaking to you tonight come from a life-long amateur. And I think the time has come when we have to give this more than just cursory thinking.

"I think the FCC is waiting for suggestions from the ARRL, and we have to keep in mind that the League represents us. We have to work through them, and they have to work through us. We don't put them up there just to be figureheads; we put them up there to see that things go right for the amateur.

"I can tell you from having served as Chairman of the Communications Subcommittee for many years that the Chairman of the FCC is very kindly disposed toward Amateur Radio. He's very easy to work with, and when I get back to Washington, I intend to speak with him about some of the things I've been thinking and some of the things I heard here.

"I think the manufacturers in this country are entitled to some consideration from all of us, and I think the day of homemade equipment is pretty well in the past. The complicated circuitry today, the type of equipment we're asked to build



Senator Barry Goldwater, K7UGA, banquet speaker at the ARRL Southwestern Division convention.

and asked to maintain, has become very difficult for the average person and even the average amateur to undertake.

"We're going to see more store-bought stations than homemade stations. If we're going to keep some of these manufacturers in business, I think we have to begin to encourage the expansion of Novice privileges.

"But if we don't do something, and do it soon, I'm afraid you're going to see Am- (please turn to page 4)



Dr. Stan Sander, N6MP, (lower right), tunes in W00RE at the JPL/Explorer Scout contact opportunity, while Explorer Scout Michelle Deets (not a ham) prepares to call 51-F. (See story on page 26.)

## 902-928 MHz band is ours

Acting on PR Docket 84-960, FCC has announced the availability of 902-928 MHz for use by all radio amateurs holding Technician Class licenses and above, effective 0001 UTC, 28 September 1985.

Emission types N0N, A1A, A2A, A2B, A3E, A3C, A3F, F1B, F2B, F3E, G3E, F3C, F3F, F8E and P0N have been authorized. — ARRL Letter

## Japan-U.S. reciprocal agreement

A long-awaited reciprocal operating agreement between the United States and Japan was signed in Tokyo on 08 August 1985, to take effect 07 September.

U.S. amateurs interested in operating in Japan should contact the Japan Amateur Radio League for details. JARL's address: 1-14-2 Sugamo, Toshima, Tokyo 170, JAPAN. (Tel: 03-947-8221) Japanese amateurs may obtain information on operation in the United States from either JARL or ARRL. (tnx Joe Speroni, AH0A, and additional sources) — ARRL Letter

## Amateurs busy during California fires

Ed Gribi, WB6IZF

From 11 June onward, Monterey and San Benito Counties were struck by 12 major fires that burned more than 125,000 acres. Amateurs were involved in communications support for 10 of these fires.

Fourteen different station assignments were made and filled, including California Department of Forestry Ranger Unit Headquarters at King City, CDF Division 5 Headquarters at Monterey, and a number of remote fire camps and roving assignments. The first callup was by CDF on 11 June and K6FI was released from Gorda Fire Camp by U.S. Forest Service on 18 July. Some 50 station days and over 100 amateurs were involved.

The main communications assignments during the period were handled by DEC Watt Del Corte, WD6EKR. Bernard Bisnett, W6TMG, organized the group that served at CDF Region headquarters in Monterey. Byron I ooney, K6FI, Section Manager, Santa Barbara Section, coordinated the fire camp and other support for the USFS Gorda and Rat Creek Fires on the south Big Sur coast.

See HAMCON pictures on page 4.





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# Worldradio

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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 per-

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## Slide-tape presentation available to clubs

The Kaw Valley ARC of Topeka, Kansas proudly announces the availability to other organizations of a slide-tape presentation concerning the organization's many recent projects, including AMCOM I, the club's repeaters, disaster relief work, public service events.

This is available to any interested club or organization for the cost of postage both ways. Inquiries and arrangements for reserving/scheduling the presentation can be directed to: Kaw Valley ARC, 1221 W. 17th St., Topeka, KS 66604. □

## Amateur Radio bulletin board

Amateur Communications Etc., of San Antonio, Texas, is pleased to announce a new service to the amateur community. We now have a computer bulletin board on line, with items specifically of interest to Amateur Radio operators. The system is still a baby, so we need all the input that we can get from you on how to make it better.

The system operator is Steven English, KA5SWI, and the assistant sysop is Frank Boehly, WD5GZU.

The name of the board is "The Radio Flyer," and its parameters are as follows:  
Phone #: (512) 734-3521

Baud Rate: 300bps  
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Computer: Apple II+  
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Perhaps the most interesting feature is the trading post. For a small fee you can list your used gear that you would like to sell, and have it seen by everyone who calls in. Please be advised that the idea of the board is not to make a profit, but to serve Amateur Radio. We would, however, like to cover the expense of the operation.

If you have any comments or suggestions, please send them to: Steven S. English, KA5SWI, 2317 Vance Jackson Rd., San Antonio, TX 78213. □

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## VE exams

### California

Examinations for all classes of Amateur Radio operator licenses, Novice through Extra Class, will again be offered on Saturday, 09 November 1985. Under the Volunteer Examiner Program, the Amador County ARC is sponsoring its fourth test session at the Senior Center in Jackson. The session is open to all who wish to take the tests; there is no requirement of membership in any organization to be eligible.

An application to take the desired test, or tests, must be received by Dave Carlson, Radio KE6NS, P.O. Box 735, Pine Grove, CA 95665 no later than 09 October. The application must be a completed FCC Form 610, a photocopy of your present license if any, and a check for \$4, payable to "ARRL/VEC". If you need a Form 610, send a note to Dave with SASE and he will send one.

Examinations are also scheduled at the same location in 1986 as follows: 15 March, 19 July, 08 November. Registration for these test sessions will be required about one month in advance of the scheduled date. □

On 10 November, the Sunnyvale VEC ARC will hold exams for Novice-Extra Class. Starting time is 1:00 p.m. To pre-register, send a check for \$4 made payable to: FCC VEC Program and a business-size SASE and mail to: ART WEST, 2413 North Sixth St., Concord, CA 94521, or call Art at (415) 674-9641. Other locations call the VEC 24 hour number at (408) 255-9000. □

Amateur Radio exams, Technician through Extra, will be given 23 Novem-

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ber, in Fresno (location to be announced when finalized).

Pre-registration is required as there will be NO walk-ins. The deadline for pre-registration is 23 October 1985. Send your completed FCC 610 Form, a copy of your Amateur license, a Certificate of Successful Completion (for code exam credit), an SASE, and a check or money order for \$4, made payable to ARRL/VEC, to: Fresno VE Team, Charles McConnell, W6DPD, 1658 W. Mesa Ave., Fresno, CA 93711-1944. For more information, call (209) 431-2038.

The Greater Los Angeles Amateur Radio Group is a not-for-profit organization dedicated to the administration of Amateur Radio license examinations at no charge to examinees.

Examination sessions are currently scheduled as follows:

05 Oct., 02 Nov., 07 Dec. — 9:00 a.m., Van Nuys. For info: (818) 762-5095

09 Nov. — 9:00 a.m., Vandenberg AFB (805) 929-3710

16 Nov., 11 Jan., 08 Mar. — 9:00 a.m., Victorville (619) 244-6080

02 Nov. — 9:00 a.m., Palm Springs (619) 347-4294

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# The ARRL Forum

Norm Brooks, K6FO

It's Saturday afternoon, 10 August 1985, and we are on the RMS *Queen Mary*, which is moored in Long Beach, California. We are attending the Southwestern Division Convention of the ARRL, being held aboard this magnificent ship. As at all ARRL Conventions, there is an ARRL Forum. This is the place ARRL members hear their elected and appointed officials, and the officials listen (hopefully) to the members.

Fried Heyn, WA6WZO, Southwestern Division Director, emceed the Forum. The room was packed to capacity — about 400.

Fried (pronounced Freed) read us a report on what took place at the last ARRL Board meeting in Newington, Connecticut. He then introduced the Section Managers from his five sections: Jim Swafford, W7FF, Arizona Section and Assistant Ray Bass, K7OMR; John Walsh, N6UK, Los Angeles Section; Joe Brown, W6UBQ, Orange Section; Art Smith, W6INI, San Diego Section; Byron Looney, K6FI, Santa Barbara Section.

Fried also introduced Executive Vice President (formerly General Manager) Dave Sumner, K1ZZ; General Counsel Chris Imlay, N3AKD; and Jay Holladay, W6EJJ, ARRL Vice President.

A microphone had been set up in a center aisle for questions to be asked by attendees. To get things rolling, Fried asked for a straw vote on proposals to enhance operating privileges for Novices. The group voted in favor of providing some additional operating privileges for Novices, but — as it turned out — what could they be? The vote split about 50-50 on phone privileges on 10 meters or 220 MHz. They also voted a resounding "no" to phone privileges on the 23cm (1200 MHz) band.

The first questioner asked whether Novice licenses could be changed back to non-renewable. He felt that recent FCC action which allows perpetual Novices is a mistake. It was pointed out to him that the renewable Novice licenses had never been an issue. It came about from unilateral FCC action. If he wants to get a movement going to change Novice licenses back to non-renewable, he can do so by petitioning the FCC. In a straw vote it was found that most favored the renewable Novice license. Is the name "Novice" OK? The vote was yes.

Another amateur asked where the idea of Novices operating on 220 MHz came



ARRL SW Division Director Fried Heyn, WA6WZO, told what the Board did at their last meeting.

from. Dave Sumner recalled that in 1975 the FCC proposed a "two-tier" Amateur Radio license structure. In this plan, the "basic" license would have been given 220 MHz phone privileges. Nothing ever came of this. Then in the late 1970's, when there was a threat of losing the 220 MHz band, the League proposed opening 220 MHz to Novices. This sat on the back burner at the FCC and was dismissed only two years ago. Since 1975, the League has favored Novice operations on the 220 band.

There was a great deal of discussion on the FCC's rule-making process, and how the League becomes involved in it. Usually, there is plenty of time for everyone to understand the proposals and make their beliefs known. There are times, however, when the FCC advises the League that they must move quickly on a decision and asks the League for its input with a short due date. Although the League is pleased that the FCC seeks its opinions, it is not happy with the short time fuses. Answers given in haste often

backfire because there was not enough time to check all inputs.

One member was not happy with the approach made to new amateurs or would-be amateurs. He said, "I go to conventions and find there is no seminar for new amateurs. I go to a display and find the manufacturers' representatives showing new hams the top-of-the-line equipment and telling them that's what they should have. More modest equipment is really all a new ham needs, and even that does not come first. What is needed first is a helping hand." (applause)

Fried responded that the ARRL field organization tries to go in that direction. He urged everyone who could help as an "Elmer," or in any other way, to make himself known to his Section Manager or staff.

A questioner pointed out that frequency bands were shrinking and allocations were being lost. How can this be checked? Dave Sumner responded that he saw more and more club officers viewing their clubs as service organizations in the community. It signifies acceptance of responsibility to the community and the public at large. "I would urge all of you to think in these terms as much as possible," he said. "In the long run, this is what is going to protect our allocations."

A southern California Extra Class amateur seriously questioned the validity of repeater coordination as now backed by the FCC. "I think you're going to make a (please turn to page 6)



Free legal advice? Right! Chris Imlay, N3AKD, the ARRL Counsel, answers questions about towers and antennas.

## Editorial

### Food for thought

Many of the more serious amateurs are deeply concerned about the "graying" of Amateur Radio.

The average age is creeping higher and higher. Young people are not coming into it.

Many brush the problem away with the statement, "Today's young people interested in technical things go into computers."

Not true. How "technical" is a computer? One could be a software genius and never have heard the word "ohm".

One problem is squarely on the shoulders of the amateur community itself. There is no "Youth Program." Never has been one either.

For comparison let's look at the many service clubs that have youth programs. Somehow they think it's important; why don't we?

Other activities have tens of thousands of people willing to work with youth. Just look at the many levels of scouting.

Think about the massive numbers of coaches and managers in Little League, Pony League, Babe Ruth League, American Legion baseball programs. There is Pop Warner football, soccer leagues and the Civil Air Patrol.

We must ask ourselves the crucial question: Why do all these other activities have people involved who are so dedicated and the amateurs appear so apathetic?

Look at the individuals who have created a giant program of athletic events for the handicapped. Has there been any effort by amateurs to go to the schools for the handicapped and give them the gift of Amateur Radio, which would really be of more lasting value for the disabled?

Are amateurs really out of the mainstream of American thought, which sees youth as the legacy?

Before you dismiss all this from your mind, ask yourself — were you helped to become an amateur by someone else? Are you glad they made the effort? —N6WR

### 420-430 MHz axed above Line A

In further action on PR Docket 84-960, effective 0001 UTC, 28 September 1985, FCC has removed the segment 420-430 MHz from the Amateur Radio Service north of Line A. (Line A begins at Aberdeen, Washington, runs through the southernmost point of Duluth, Minnesota, continues through the Great Lakes region to the southernmost point of Searsport, Maine.)

This was done to protect Canadian Fixed and Mobile operation in this band. — ARRL Letter

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ARRL General Manager Dave Sumner, K1ZZ, was on hand to answer any questions about the League.

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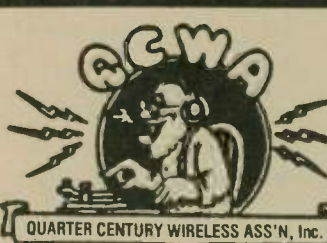
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Dee Crumpton, N6ELP, publisher of the *RTTY Journal*, visits the *World-radio* booth.



Top-notch contester Jim Rafferty, N6RJ, gives advice on what rig to get.



The high-power 2-meter amplifiers from Alinco drew lots of interest.



Gordon West, WB6NOA, says "Buy my code course and you can be an Extra just like me."



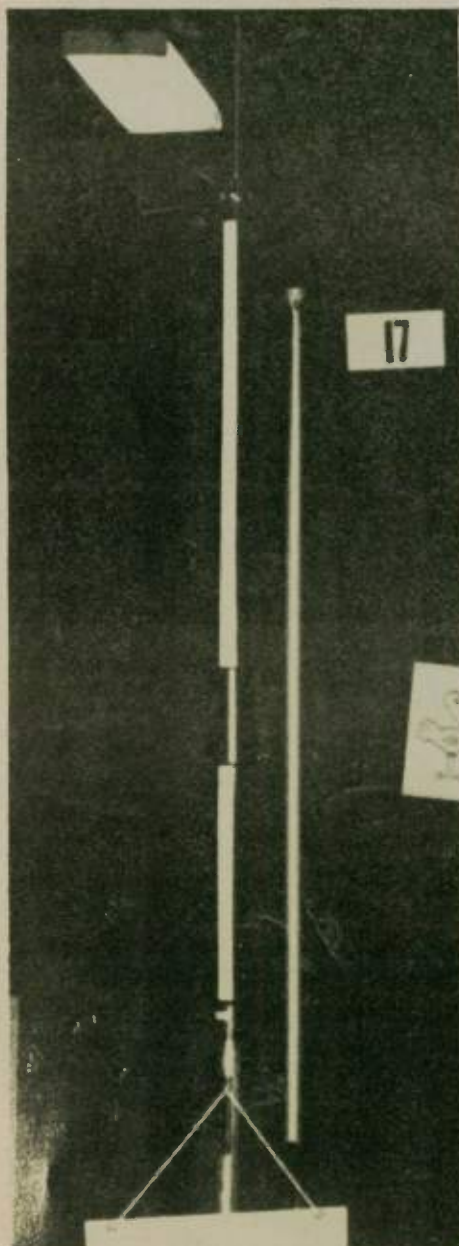
Need a coax connector? Charles D. Simmons, W6PDH, has everything you could need.



"Why let dead batteries make you a wreck? Try a Handi-Tek." And many amateurs take the advice.



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Jack Althouse, K6NY, of Palomar Engineers always answers lots of questions.

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## Goldwater

(continued from page 1)

ateur Radio go down the tubes. Some of the people who are getting along in years aren't going to be here forever. I'd like to see some kids come along.

"I never looked on Amateur Radio strictly as a hobby — I've looked on it as a service. I don't think there's an operator in this room who can look back at his time of service and not remember something they did on the air — maybe to save a life, to make a life better, to make somebody happier. These are the things we are so interested in.

"Hobby? Yes, it's a hobby, but it's a service. I think each one of us has a feeling in his heart that this service is more important to each of us than anything else about Amateur Radio.

"What can we do to make Amateur Radio better? What can we do to make the whole subject of communications in this country better? What can we do to make it live forever?"



# Emergency drills pay off in Dallas

Fred Maia, W5YI

Friday, 02 August was a hot, muggy day in Dallas. . . . one of many. A small but powerful thunderstorm had moved in to the northern part of mammoth Dallas/Fort Worth airport. Weather conditions were not good. One Delta 727 jet had already made a decision to divert to Oklahoma City. Delta 191, a widebody L-1011 carrying 162, attempted the landing at 6:05 p.m. It didn't make it.

The Tristar jumbo jet hit short of runway 17 and bounced over Highway 114 — which I had traveled over just an hour earlier — its landing gear instantly decapitating an unsuspecting driver. The plane burst into fire after slamming into two water tanks. All those sitting in the forward section were killed. The 20 some odd survivors were in the tail section. The next few hours were absolutely chaotic. . . . and tragic. Charred bodies and gore were everywhere.

Delta 191 was the first major crash at the Dallas/Ft. Worth International airport and the worst in Texas history. No one is yet sure of the cause. Vertical "wind shear" turbulence or a lightning strike is mentioned.

Dallas RACES (Radio Amateur Civil Emergency Service), a part of the Amateur Radio Service that provides radio communications for civil defense purposes, had participated in annually rehearsed emergency preparedness drills. The scenario that had been practiced was that there would be a lot of survivors . . . a lot of injured. It wasn't to be.

The role of Amateur Radio in the D/FW emergency plan is to provide backup communications from the crash site to area hospitals, blood banks, Department of Public Safety (state police) and various Civil Defense offices in the Dallas County area, including the EOC (Emergency Operating Center), for the city of Dallas during a disaster. RACES also provides a qualified radio operator at each hospital for assistance with the main "DalNet" hospital radio circuit, which is operational on other than ham spectrum.

RACES' Johnny Davis, K5JD, sounded the alert tone within five minutes of the crash, which notifies RACES members on specially equipped receivers of an emergency. The RACES group was activated by John Pickett of the Dallas Office of Emergency Preparedness. The net went operational on the W5FC 146.28/.88 repeater with Davis . . . and later on, Phil Clements, K5PC . . . as net control stations.

The Dallas ARC communications-loaded emergency van was dispatched immediately to the crash site and was among the first at the scene. At least 50 different emergency agencies responded to the disaster. D/FW has a very elaborate emergency plan. All neighboring cities are immediately notified at once via intercity radio. Dozens of ambulances showed up from everywhere.

Jim Haynie, WB5JVP, Charlie Miller, WD5EEH, and Hank Levine, K5VXM, were at the scene. Hank's wife is a Delta stewardess. The RACES net, on the air from 30 minutes after the crash, didn't cease operation until after midnight. They were right in the middle of things. It was not a pretty sight. Haynie said he was "dumbfounded . . . dumbstruck" and that it was difficult for him to describe. Haynie, who had walked through the wreckage, said he was still having a problem dealing with it.

Amateurs were immediately dispatched to 10 metroplex hospitals. Within an hour

after the net was opened, eight hospitals had RACES operators present. All 10 hospitals, as well as the other locations, were manned within an hour and a half.

There was quite a bit of activity for about three hours. Unfortunately, the communications level between the site and the hospital was relatively low compared to what it would have been had there been more survivors. About a dozen survivors were pulled by rescue workers from the flaming wreckage.

After the hospitals were notified that

the ambulances were on their way, communications consisted mainly of notifying the EOC of the number of those injured and victims sent to the various hospitals. Traffic was also handled with the blood banks which needed supplies.

A "broadcast" call was sent out for "O-negative" blood needed by the blood bank on 146.28/.88. It was amazing how many people had receivers on .88! The pinpointing of 14 pints of "O-negative" blood at a local hospital was handled via ham radio. It was impossible for the hospital to get

through to the blood bank on the telephone. Again, Amateur Radio answered the challenge.

Refrigerated trucks arrived and a temporary morgue was set up at the air freight terminal a short distance away. Trips between the morgue and the scene were coordinated on Amateur Radio.

One report had it that the Dallas ARC van was treated pretty much as a command post. A number of officials came over and used the radio. One government call was to Washington, D.C. A federal agent had flashed a badge and said he had to make a phone call. It was handled via Amateur Radio phone patch after the long-distance capability was enabled.

## EVERYONE'S GOING TO LAS VEGAS

Astronauts  
Dr. Tony England, WØORE  
Dr. John David Bartoe, W4NYZ

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There was also some (questionably legal) deadline newspaper media reporting passed on the ham radio circuit to get the word out to the public. After a couple of hours, cellular phones were brought to the site and were used. Radio proved to be superior to the telephone in many instances since the phone lines quickly got jammed with hundreds of calls.

The main use of Amateur Radio during the disaster was to collect information about survivors (how many there were and where they were going) and to provide liaison between Dallas and Tarrant County. D/FW Airport is located between the two. Several key rescue officials were assigned amateur operators (with hand-talkies) to increase their communications effectiveness. They worked into the van on simplex channels.

Jim Badgett, the Dallas County Civil Defense Director, said via phone patch on the RACES training network held the Sunday after the crash that the work the amateurs did during the disaster was very, very valuable. The state police said they derived a great deal of desperately needed information by monitoring the .28/.88 machine.

02 August was a long night for Amateur Radio in Dallas, but it proved its worth when the chips were down. One airport official was heard to say, "I guess our drills paid off."

— W5YI Report □

## ... the way it was

Milt Daniel, WA7ZHR

Just thought you might enjoy a small anecdote that occurred in my earlier days of "electronics".

In 1934, when I was about 16 years old and just getting interested in things electrical, a schoolmate of mine was going with a girl in Portland, Oregon.

The girl's mother was rather a social climber and was looking for something new to impress her guests. Her latest brainstorm was to have a small lamp on the dinner table before each place setting. The stipulation was that there could be no holes in the tabletop. After considerable experimenting, we decided it could be done. The magnetic field from a coil on the bottom of the table would pass through the wood to a similar coil in the bottom of a lamp base on top. It lit up a 25 watt bulb very nicely!

We scrounged up enough materials for the coils and made lamp bases from the burl of an old cedar stump. The lady was ecstatic, and gave a dinner party at the first opportunity to show off her new triumph. We were ecstatic also, just thinking about how many of these things we could sell!

But there was something about the laws of physics we had not yet learned. The dinner party began sensationally, however, someone soon found that a lamp became dimmer if removed from the direct field beneath it. This was no problem. But as the dinner ended, somehow a table knife got shoved directly over the coil below. Smoke arose from the knife, and the knife turned blue! A hole was burned in a new lace tablecloth. Also in our lamp business!

—Idaho Society of Radio Amateurs, Boise, ID □

## Maritime mobile on 17th-century square-rigger

Marijane Evans, NP2AZ

The *Godspeed*, built with Virginia state funds to recreate the voyage of one of the three ships which brought English settlers to Jamestown in 1607 (13 years before the *Mayflower* landed at Plymouth, Massachusetts), left England on its 6,000-mile voyage to the "New World" on 30 April 1985.

Great care was taken to make the 68-foot square-rigger as much like the original *Godspeed* as possible, including wind power only . . . no engine. The only modern convenience on board was the HF equipment, donated by Heathkit, with an antenna system consisting of a random wire in a loop configuration and a Heathkit antenna tuner. The 14-man all-volunteer crew included three Amateur Radio operators. Neil Tanner, WA4CHQ, was the *Godspeed* radio operator, while Captain George C. Salley, KA4FVB, acted as assistant radio operator, and Dug Steele, N4KPT, was the photo-journalist.

Amateur Radio operators in the Virgin Islands followed the progress of the *Godspeed* on its Atlantic crossing with great interest, and as the vessel neared the end of its 31 days at sea from the Canary Islands, many sailed out to escort the ship into St. Thomas harbor on 13 July 1985.

A seaman aboard the original *Godspeed*

noted 378 years ago that St. Thomas was "an excellent bay able to harbor 100 ships, but it hath no fresh water, which

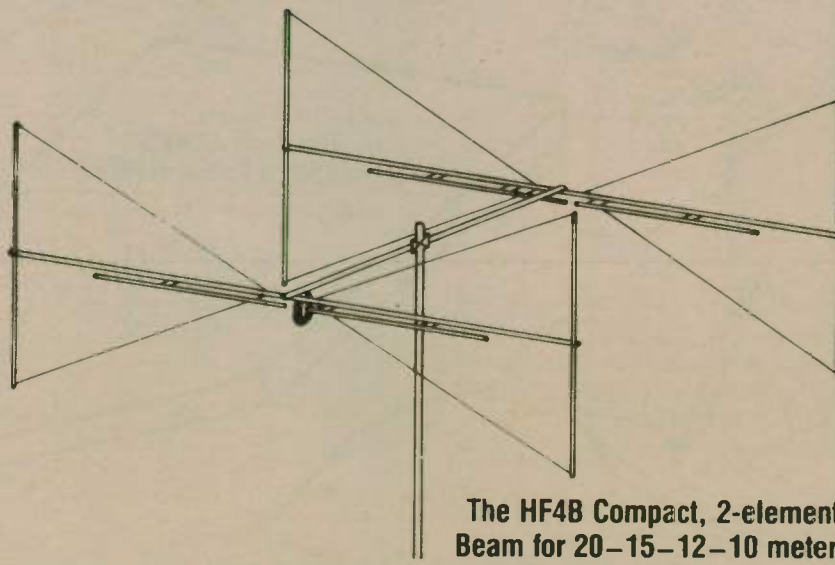
makes the place void of any inhabitants."

Still short on water, St. Thomas is no (please turn to page 32)



Klaus Willems, WP2ACV, of the Virgin Islands ARC, shakes hand of Neil Tanner, WA4CHQ, radio operator aboard the *Godspeed*, as Bill Henry, N4JSP, communications advisor to the Jamestown-Yorktown Foundation, looks on. Photo taken at Yacht Haven Dock, St. Thomas, upon arrival of the *Godspeed*.

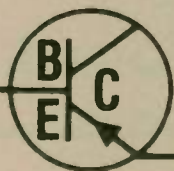
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## ARRL

(continued from page 3)

big mistake," he said, "assuming that everything that has ever been coordinated automatically has top priority.

In the southern California area there are some repeaters that have as little as six users. They have had a frequency allocation for 12 years, and thus feel they have proprietary rights to that frequency. Another group will come along and say, "We have a larger operation. They apply for coordination and are told there are no frequencies available. If they go on the air anyway, they are told they are in violation of FCC rules and are, by definition, causing malicious interference. I believe in coordination; otherwise there would be nothing but chaos in the VHF/UHF bands."

Both Jay Holladay and Chris Imlay responded to this amateur's comments. If two repeaters interfere with each other and one is coordinated and one is not, there is the presumption that the coordinated repeater is in the right. This is not an absolute presumption, but it is the best thing the FCC has to go on. What they're trying to do is establish some basic validity to the coordination process.

Neither Holladay nor Imlay addressed the issue of low usage of the valuable frequency assignment. In a final desperate comment, the amateur said, "If you assume a coordinated repeater has priority, it means, 'I got here first, it is mine.' Some of these groups have but a half-dozen users — and use the frequency but 20 minutes a day. They got there first, 12 years ago. I ask you why do we not have a 16/76 repeater in southern California?" (applause)

Dave Sumner added that here we're ordination — not the presence or absence of coordination. There is much work to be done in the future on the "how" of frequency coordination.

When the time was up, there were a half-dozen amateurs waiting to speak at the mike, but their subjects may have been already covered, as the Forum closed in an orderly manner. And so it went at the ARRL Forum. □

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# Astronauts to appear

John D. Weaver, W7IA

Astronauts Dr. Tony England, W0ORE, and Dr. John David Bartoe, W4NYZ, will be the guests of honor and main banquet speakers at the ARRL Pacific Division Convention, OCTOBER-VENTION, to be held 01-02 November, at the Hacienda Hotel, Las Vegas, Nevada. England and Bartoe flew aboard the space shuttle *Challenger* on mission 51-F in late July and early August of this year.

Although plagued by early problems, the *Challenger* crew successfully completed an impressive array of scientific experiments in this historic mission.

Of special interest to Amateur Radio operators was SAREX, the Shuttle Amateur Radio Experiment. This experiment produced the first amateur transmissions of slow-scan TV from the shuttle. Attempts by amateurs to transmit slow-scan TV signals from Earth to space were automatically recorded on board the *Challenger* for later review after landing. These videotapes are expected to be replayed at the convention.

Many amateurs participated in mission 51-F by listening to the official NASA communications link with the astronauts on board *Challenger*, which was made available for continuous rebroadcast on the amateur bands and was heard throughout the world courtesy of the Goddard Space Flight Center and Jet Propulsion Laboratory ARCs, as well as many others.

A number of two-way voice contacts with the shuttle were also made by lucky amateurs captive here on Earth. □

## YLRL convention memories

Marcia Rast, K6DLL

The theme, *COME ALIVE IN '85!* really happened in Las Vegas from June 20 through 23, with approximately 180 YLRL members in attendance at the Sahara Hotel/Casino. Everyone had a great time meeting and greeting each other in spite of the unprecedented hot, hot weather. It was record breaking heat for that early in June in Las Vegas.

The chairman of the convention was Jan Weaver, N7YL, from Las Vegas ably assisted by her co-chairman Marte Wessel, K0EPE, from Liberal, Kansas. They both did a great job with help from so many of the YLs who "pitched in." I do not know how many of the 50 states were represented there, but I am sure that not many were missing.

Women Amateur Radio operators who belong to the YLRL organization are really a close-knit group, and it was a marvelous thing for many of them to be able to meet each other for the first time in person. Until then, they were just a voice over the airwaves to each other. Many of the YLs were meeting for the first time and many others had met in per-

son several times before. Such "eye-ball" QSOing you would have had to have heard to believe! My OM, Ted W6SMU, was afraid we would all come down with a case of "lock-jaw" before it was over, from the continuous talking. It was a great experience for all.

Among those attending were two YLs from overseas: Barbara Ulatowska, SP5FF, from Poland and Helene Wyss, HB9ACO, from Switzerland. Barbara had tried to make it to two previous conventions but could not obtain an exit permit.

Both before and after the convention, Barbara was escorted around; sightseeing throughout different parts of the United States.

Helene had arrived in Las Vegas after a two week long bus tour of the Southwest and California. She had arrived very tired, but very happy with what she had seen of the United States. Ted and I had the privilege of showing her around Las Vegas — with the air conditioner on, of course!

Having a convention in a hotel/casino

was great, but fraught with many distractions.

Some of the YLs were experiencing another first for them — being in a gambling establishment. Some of them left with money in their pockets which they had won: like the "Keno Queen", Marte, K0EPE. Hi. Hi. Some others didn't fare as well — like yours truly. But one thing was certain: all of the YLs attending were thrilled to be there, in spite of the heat, and gratified at having had the opportunity to meet with so many YLRL friends. □



FT-209RH shown actual size.

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The ARRL comment on FCC's PR Docket 85-108 proposal objects to the proposed blanket prohibition of transmission of third-party traffic via stations operated under automatic control. ARRL stated that the "potential for abuse by unlicensed individuals in a digital Amateur Radio system exists *only* at the point where the third-party traffic is originated and introduced into the Amateur Radio medium." ... It is therefore necessary for a control operator to monitor the transmission only when a message is being introduced into the system."

ARRL also suggests that automatic control be permitted only for digital communications, provided that automatic shutdown would occur if a malfunction is detected, and devices are installed to assure compliance with the rules when a control operator is not present. (ARRL Letter, 07/04/85) The comment period on PR 85-105 ended on 25 July 1985.

In an order adopted 02 July 1985, FCC concluded its present limitations on the license class requirements for volunteer examiners provides "sufficient examiners and examination opportunities." While agreeing with petitioner Fred Maia (W5YI) that 47 U.S.C. §154(f)(4)(B) "is not a bar to Advanced operator administration of that element" (the 13 wpm code test) to an applicant for a General license, the Commission stated that the General Class examinations comprise only about 12% of the volunteer examination workload. FCC concluded: "Therefore, we will continue to accept the voluntary services of only Amateur Extra operators for the administration of Element 1(B) for applicants for the General Class license at this time..." The current "... volunteer examination program above the Novice class (was) recently instituted in PR Docket No. 83-27."

Modification of FCC's proposal in PR Docket 85-104, to permit the use of telephony in the 7075-7100 kHz segment of the 10-meter band by FCC-licensed amateur stations located outside the contiguous 48 states, is proposed by the ARRL. (See 'Highlights,' three months back.)

"The League takes exception to the wording of the proposal. By permitting the use of these frequencies outside the 48 states, amateurs on the high seas anywhere would be permitted to use them. This goes beyond Novoa's original request, and would significantly increase the use of the segment.

"The League suggests that the rule be modified to specify stations west of 30 degrees West Longitude or south of 20 degrees North Latitude. This restriction would better accomplish the objective of the original petition."

David Novoa's corrected petition, RM-4872, proposed 19 degrees North Latitude as the northern limit for use of telephony in the 7075-7100 kHz segment by FCC-licensed amateur stations. The comment period for PR Docket 85-104 ended 17 July 1985.

On 05 July 1985, FCC adopted a Notice of Proposed Rulemaking to allow auxiliary operation on all amateur frequencies, except 431-433 and 435-438 MHz. Presently, no auxiliary operation is permitted below 220.5 MHz, nor in the two excepted sub-bands. Auxiliary operation is defined in Section 97.3(1) of the Amateur Rules as: "Radio communication for remotely controlling other Amateur Radio stations, for automatically relaying the radio signals of other Amateur Radio stations in a system of stations, or for intercommunicating with other Amateur Radio stations in a system of Amateur Radio stations."

In support of its petition for the frequency expansion, the Quarter Century Wireless Association (QCWA) states that the technological state of the art has made restrictions on auxiliary operation unnecessary. According to the petitioner, allowing auxiliary links to be used on all amateur frequencies would provide the Amateur Radio Service with a variety of options such as in-band control including the use of tertiary offsets; cross-polarization of antennas; new crossband modes of operation; and independent sideband for simultaneous control and repeater operation (referenced to the same suppressed carrier frequency).

FCC stated: "The rationale for expanding the use of auxiliary links in the Amateur Radio Service is consistent with our proposal in PR Docket 85-105 to broaden the uses of automatic control."

FCC made the usual provision for submission of comments: original on or before 24 September and reply comments on or before 25 October 1985. Comments should refer to PR Docket 85-215 and should be submitted to: The Secretary, FCC, Washington, D.C. 20554. All comments are given the same consideration, regardless of the number of copies submitted. "Formal" participants must file an original and five copies. Participants who wish each Commissioner to have a personal copy of their comments should file an original and 11 copies.

"California Amateur Gets Relief From Cable TVI" is the headline in ARRL's 07/04/85 Letter. He had 200 kHz wide, 20 to 60dB over S9 QRM from the cable. It involved both ingress and egress. The QRM level was unchanged by new cable.

Further attempts for over six months got no cooperation from the cable company. He complained to FCC, Long Beach.

The company said 50% of the QRM was corrected by a properly installed new splice connector. The company advised FCC that the remainder of the QRM problem would be corrected by a new drop cable installation program to be completed by mid-September.

FCC found that two sites had leakage levels greater than the Rules limit. In response, the cable company said it could not duplicate the FCC's findings. The company later advised FCC it had corrected the leakage and that it had been caused by a child's tampering which had damaged the cable!

The \$2,000 fine assessed to James Brantley, K6KPS, for violation of Rule 97.113, which prohibits broadcasting, had not been paid in the 30-day period provided for payment or reply, which ended on 12 July. Failure to pay or reply makes him liable for action by the Department of Justice. See last month's 'Highlights' for more details.

In PR Docket 85-129, FCC was proposed to allow "Field Disturbance sensors" in the 1.6-10 MHz segment of the spectrum. Presently their use is restricted to discrete channels at 2, 4.5 and 8.2 MHz. The sensors are used by retail stores as anti-theft devices. The proposed use would be subject to the non-interference restrictions of Part 15 of FCC's rules.

The ARRL has filed comments requesting that the devices be prohibited from operating in the 160, 80 and 40-meter amateur bands or their use be restricted to commercial, business or industrial environments. Sensor manufacturers feel that the reduced sensitivity of their devices derived from using a wide sweep of 1.6-10 MHz will result in fewer false alarms. (ARRL Letter, 07/05/85)

ARRL has published a new, fourth edition of *The FCC Rule Book* and it was available for purchase in late July. It contains the most up-to-date version of FCC's Amateur Radio Service Rules including changes adopted on and before 25 April 1985.

On 20 June 1985, FCC issued an "Erratum" to its Notice of Proposed Rule Making, PR Docket 85-196. The proposed rules would: "... permit volunteer examiner coordinators (VECs) to maintain pools of questions for amateur operator examinations." The erratum advises that the "01 December 1987" dates in paragraphs 8 and 9 should be changed to: "01 January 1987".

A LA0AD Radio and Microwave Communications Consultants" firm has petitioned the FCC to move a developmental digital telemetry system from the 216-220 MHz band to 220-225 MHz. The ARRL has filed opposing comments and has suggested that the developmental system would be better suited to sharing two or more (174-216 MHz) TV channels. (W5YI Report, 07/15/85)

Four Californians were fined for engaging in and permitting unauthorized use of modified amateur SSB equipment on 10.770 kHz between a sportfishing vessel offshore and a California private residence. The man and woman operating the equipment were fined \$750 each, as was the captain of the vessel. The owner of the vessel "... was fined \$2,000 for allowing voyages from Cabo San Lucas to San Diego without an FCC licensed radio operator aboard." (W5YI Report, 07/15/85)

FCC sponsored a national volunteer examiner coordinators conference, held on 09 August at the Commission's Gettysburg, Pennsylvania license processing facility. The purpose was "... to devise ways of improving the overall ... volunteer testing system. The FCC hopes this will be the first in a series of meetings between all VECs, whether or not the FCC, itself, is involved." (Westlink Report, 7/26/85).

On 12 July 1985, Lawrence Kaczmarczyk was issued an order to show cause why his Advanced Class operator license and his station license, W3UQW, should not be suspended and revoked, for malicious interference to other amateurs operating in the 2-meter band (Section 97.125). He is also charged with violation, on 14 and 22 March 1985, of Sections

## Amateur Radio Call Signs

Amateur Radio operators often ask the FCC what call signs have been assigned lately. This list shows the last call sign in each group to be assigned for each district, as of 01 August 1985.

For more information about call sign assignment in the Amateur Radio Service, see Section 97.51 of the FCC Rules, or write to the FCC, Consumer Assistance Branch, Gettysburg, PA 17325.

Radio District	Group A Am. Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
0	NN0B	KD0ZJ	N0GKW	KA0VEW
1	NB1B	KB1UD	N1DQZ	KA1NHL
2	NM2B	KD2OG	N2FTA	KA2YZJ
3	KW3Y	KC3SZ	N3EMY	KA3OJP
4	AA4LT	KJ4HC	N4MME	KB4PFL
5	NY5J	KF5DB	N5IHN	KA5WRQ
6	WK6C	KG6VV	N6MKF	KB6JPY
7	NQ7F	KE7IN	N7HKX	KA7VXR
8	NN8O	KE8AF	N8GUE	KA8YAE
9	NF9W	KD9QT	N9FHZ	KA9TZF
N. Mariana Is.	AH0E	AH0AC	KH0AI	WH0AAG
Guam	AH2V	AH2BD	KH2BW	WH2AGH
Johnston Is.	AH3A	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Hawaii	**	AH6GG	NH6EI	WH6BFC
American Samoa			KH7AA	
Wake Wilkes Peale	AH8B	AH8AB	KH8AD	WH8AAV
Alaska		AH9AC	KH9AB	WH9AAE
Virgin Is.		AL7HC	NL7GO	WL7BHU
Puerto Rico	KP2N	KP2AU	NP2BK	WP2AEM
	WP4N	KP4IT	NP4PA	WP4EJN


\*\*All of the Group A call signs for Hawaii have been assigned. Any request for a Group A call sign will now be assigned a Group B format.



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## • Silent Keys •

### Lester Dubin, W2AQN

Lester Dubin, W2AQN, QCWA Life Member 5950, died of cancer on 23 July 1985. Originally licensed in 1931 at the age of 12, he held his license continuously since then. His golden life membership QCWA card was pinned up with his get well cards in the hospital where he expired.

In 1936 as freshmen in engineering, we spent many all night sessions chasing DX at W2HJ, the City College Radio Club.

During WWII, Lester was a civilian hydrographer with the U.S. Navy serving aboard the *Boudoin* where he participated in the hydrographic surveys in Newfoundland prior to the establishment of the base at Argentina.

After WWII, Lester went into business for himself and founded Lambda Power Supplies of Melville, New York, now a division of Veeco Industries. Lambda became the world's largest supplier of power supplies for the electronics industry.

Following the sale of Lambda to Veeco, Lester retired while still in his 40s. He spent the rest of his life following the stock market and consulting. He contributed generously to charities supporting the state of Israel.

The Lambda logo consists of the Greek letter "Lambda" enclosed in the triangular symbol for "Delta". It is de-

rived from his initials "LD". The millions of nameplates on Lambda power supplies all over the world containing that logo are his everlasting memorial. — Submitted by his former associate and friend of 50 years: Jules L. Freundlich, W2JGR □

### Kenneth Walsh, WD4HFI

Kenneth T. Walsh, WD4HFI, of Elm City, North Carolina, became a Silent Key on Saturday, 10 August.

"Ken" as he was lovingly called by his

numerous friends, was an active man in the Rocky Mount ARC 72/12 repeater group, and a charter member of the Wilson (NC) ARA 16/76 repeater group. He was also a very active member of his Elm City First Baptist Church.

"Ken" will be greatly missed by his very numerous friends in eastern North Carolina. — Huland B. Gardner, WB4THL. □

### John Kelley, W4SJK

On 27 July, John H. Kelley, W4SJK, died after two months in the hospital. He

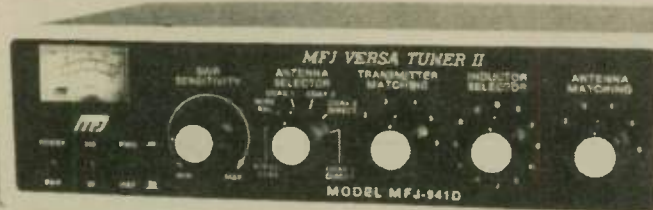
is survived by his wife in West Palm Beach, Florida, as well as family members in Ohio and Virginia.

John was in the West Palm area for 40 years. He was a past president of the local radio club and was active with the Palm Beach Amateur Radio Council. One of the ham radio activities he particularly enjoyed was handling traffic for maritime mobiles in the Atlantic, Caribbean and Gulf of Mexico areas.

Retired from the construction industry, John was always ready to dig around the local shipyards to find a part to help a sailor laid up in a faraway cove get his boat or accessories back in service.

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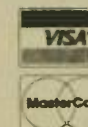
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## Highlights

97.113 (Broadcasting prohibited), 97.115 (Music prohibited), 97.84 (Station identification), and 97.123 (Unidentified communications).

Amateur operator license totals, by class, at the end of June 1985, were: Extra 37,214; Advanced 97,383; General 116,595; Technician 81,688; Novice 76,188; Total 409,068.

On 03 July 1985, FCC announced criminal complaints had been filed against three persons accused of making illegal Amateur Radio transmissions. These complaints resulted in the arrest of the three. Pending filing of formal charges, the complaints have been dismissed so that the cases can be reviewed and processed in a manner which permits presentation to a federal grand jury to seek indictments for violation of federal law. Conviction could result in a sentence of up to one year in prison and a \$10,000 fine for each offense.

The FCC's Detroit office conducted the investigation and located the illegal operators in response to numerous complaints about deliberate interference being caused to Amateur Radio Communications. (ARRL Letter, 07/18/85)

Two Philadelphia CB operators were fined \$900 and \$750 in June for over-power operation which resulted in complaints of interference to neighbors' television reception. (ARRL Letter, 07/18/85)

FCC has "issued" a fine of \$1,000 to a Ridgetop, Tennessee resident for operation in an unlicensed "OSCAR group" working near 6930 kHz. He was located by FCC's Atlanta Office, with the help of the Commission's high frequency direction-finding system. (ARRL Letter, 07/18/85)



An active Mason, W4SJK will be missed by his scores of civic, amateur and fraternal friends. □

## David Pope, K6JKQ

On 14 July 1985, David K. Pope, K6JKQ, passed away in Stockton, California. A native of Pennsylvania, Dave served in the U.S. Navy during World War II. He retired a lieutenant in 1973 after serving 31 years. Following retirement, he finished his B.A. degree at the University of the Pacific and was the director of the modern language lab at University of the Pacific (U.O.P.). Dave is

survived by his wife Mary and four children.

Dave was active in Amateur Radio for over 40 years, especially VHF and UHF. He was an active member of the Stockton ARC and was well known in central California for his interest and expertise in antenna design and construction. He was always ready to help young hams get started, helping them put up antennas and frequently gave that "gentle nudge" to get them to throw the switch for the first time. Most recently Dave had been involved with packet radio on 2 meters.

Dave's interests stretched beyond ham radio into astronomy, playing Ragtime piano, involvement with the University of the Pacific's Quarterback Club. Additionally, Dave was a member of SIRS.

Dave Pope was a man of tremendous wisdom and compassion. His hundreds of friends across the country will miss his keen sense of humor, his vast knowledge of radio, and his friendship

—Douglas Matheson, WA6WRR □

## Hams save boaters

The Rockland (Maine) Coast Guard Base credited two local ham radio operators with assisting in a boat rescue case on Sunday, 21 July. Officials said John Pearce was at a Lake Chickawaukie camp on Sunday afternoon at 1:00 p.m. when he heard a call over his radio.

The call was from Robert Thing, aboard the 31-foot sloop *Venture*, in Penobscot Bay. Thing had spotted two men and a dog in the water near a capsized boat, about a half-mile from Green Island. After obtaining the exact location, Pearce called the Coast Guard Base. Through radio relays, the Coast Guard rescue boat was guided to the scene; no casualties were reported. — *Bangor Daily News* □

# SPECIAL EVENTS

## Alcatraz Island

The Sacramento ARC will operate club station W6AK from 1730Z to 2300Z, 05-06 October, from Alcatraz Island. Frequencies: Phone — 3.950, 7.270, 14.300, 21.400 and 146.52; CW — 3.725, 7.125, 14.050 and 21.085; Packet radio — W6AK-5 145.01.

Special QSL available for one QSO. SWLs welcome. Send SASE and QSO information to Sacramento ARC, P.O. Box 161903, Sacramento, CA 95816-1903. □

## Treasure Island

The Garden State ARA, W2GSA, will operate their 6th annual special event from Treasure Island, Monmouth County, to commemorate the stay of Robert Louis Stevenson on the island.

Operating times will be from 1600Z, 05 October until 1600Z, 06 October. Suggested frequencies: 3.910, 7.235, 14.235 and 21.260. For a certificate, send large SASE and a QSL to Lucien Eloe, WA2SSH, 7 Carol Ave., Neptune, NJ 07753. — *Harry Polhemus, KN2B* □

## Lewis and Clark

Members of the Hermiston ARC will be on the air to commemorate the 104th an-

niversary of Lewis and Clark's visit to Hat Rock. Operation will be from 1800Z to 0100Z on 12 October, and 1800-2200Z on 13 October. Frequencies: General phone and Novice CW bands with some 2-meter and 440 MHz operation.

To receive a special certificate, send a 9" × 12" SASE to HARC, P.O. Box 962, Hermiston, OR 97838. □

## Sunbelt Expo

The Colquitt County Ham Radio Society will be operating club station WD4KOW from the site of the 8th annual Sunbelt Agricultural Exposition on 15-17 October. The hours of operation will be 0900 to 1700 EDST each day.

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

Operations will be in the general portion of the HF bands. The members will also be listening for visiting hams on the local repeater, 146.19/79. Visiting hams are invited to visit the amateur booth at the Expo and operate the amateur station.

A special QSL card is available for those making contact during this event and submitting an SASE. □

## Bayfest, Shrimporee

The Armadillo Gang will operate W5RKK while on display at Bayfest 85 Family Festival. The frequencies will be 7.260, 14.280, 21.375 and 28.600. QSL via David Stephens, WB5YPE, 5709 Bobalo, Corpus Christi, TX 78412.

On 17-19 October, the Armadillo Gang will operate WB5YPE from the Shrimporee Family Festival in Aransas Pass, Texas. Frequencies will be 7.260, 14.280, 21.375 and 28.600. QSL via WB5YPE (see address above). □

## Daniel Boone

The St. Peters ARC will operate from 1700Z, 26 October to 1700Z, 27 October at the Daniel Boone Home, Femme Osage Valley, St. Charles County, to commemorate where Boone spent the last two decades of his life.

KB0J will be operating on approximately 3.915, 7.240, 14.280 and 21.420 MHz. A coonskin cap will be given to the first operator making contact on all four bands.

Certificate via Bob Goin, KA0IKU, 3112 Powder Horn Trail, St. Charles, MO 63301. □

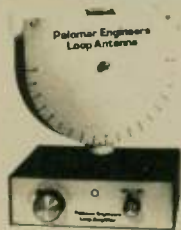
## Montpelier Mansion

The Laurel ARC will operate special event station W3DQI on Sunday, 27 October, from 1500Z to 2230Z, to help celebrate the anniversary of the restoration of the Montpelier Cultural Arts Center of Montpelier Mansion in historic Laurel, Maryland.

Frequencies: lower 25 kHz of General bands on 75, 40 and 20 meters. Also 147.54 MHz simplex.

Send 8" × 11" certificate for SASE. QSL to LARC, P.O. Box 91, Annapolis Junction, MD 20701. □

## Loop Antenna



Here is an exciting new device to improve your reception on 160, 80, the broadcast band, and on VLF.

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Unlike ordinary direction-finder loops, it tilts to match the incoming wave front. The result: Deep nulls up to 70 db. You have to listen to believe it!

Does local noise on 160 give you a headache? The loop practically eliminates it. Broadcast station 2nd harmonic ruining your DX? Turn and tilt the loop and it's gone. Does your friend in the next block with his kilowatt block those weak ones? Use the loop and hear him fade out.

Loop nulls are very sharp on local and ground wave signals but usually are broad or nonexistent on distant skywave signals. This allows local interference to be eliminated while DX stations can still be heard from all directions.

The loops are Litz-wire wound on RF ferrite rods. They plug into the Loop Amplifier which boosts the loop signal 20 db and isolates and preserves the high Q of the loop. The tuning control peaks the loop and gives extra preselection to your receiver.

Plug-in loops are available for these bands:

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- 540-1600 KHz (Broadcast)
- 1600-5000 KHz (160 & 80 meters)
- 5-15 MHz (HF-1)

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Loop Amplifier \$84.95; Plug-in Loop Antennas \$62.95 each (specify frequency band). To order add \$4 packing/shipping. California residents add sales tax.

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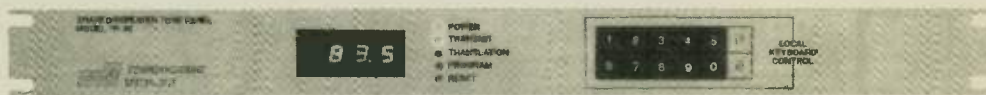




# Catch of the day!

Have you been trawling the bounding main for a new product? We have just netted it—the TP-38 microprocessor controlled community repeater panel which provides the complete interface between the repeater receiver and transmitter. Scuttle individual tone cards, all 38 EIA standard CTCSS tones are included as well as time and hit accumulators, programmable timers, tone translation, and AC power supply at one low price of \$595.00. The TP-38 is packed like a can of sardines with features, as a matter of fact the only additional option is a DTMF module for \$59.95. This module allows complete offsite remote control of all TP-38 functions, including adding new customers or deleting poor paying ones, over the repeater receiver channel.

Other features include CMOS circuitry for low power consumption, non-volatile memory to retain programming if power loss occurs, immunity to falsing, programmable security code and much more. The TP-38 is backed by our legendary 1 year warranty and is shipped fresh daily. Why not set passage for the abundant waters of Communications Specialists and cast your nets for a TP-38 or other fine catch.



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## Jamboree On The Air

JOTA is an annual Scouting/Ham Radio event. It is always held during the third weekend of October. This is the 28th year it will be held; dates this year will be 19-20 October.

Thousands of stations around the globe participate. If propagation is right, it is common to work Scouting DXCC. In past JOTAs, Scouts in some remote areas like Antarctica, Ascension Island, Christmas Island, Gough and Seychelles were heard.

In the USA, many Scout Councils and Districts hold camporees to coincide with JOTA where hams set up Field Day-type operations, giving campers a chance to exchange greetings with Scouts everywhere.

Generally, the exchanges include typical information: name, QTH, Scout rank, hobbies, etc., with some leading to long-lasting pen pal friendships and the exchange of photos, badges and patches. SSTV and ATV give some a chance to have a "look-see" at the other guy. Other QSOs reported were via RTTY, EME and OSCAR.

Look for K2BSA, the BSA headquarters in Dallas, Texas, and for HB9S, the World Scout headquarters in Switzerland, and for other special call signs from many countries.

**Eligibility:** Boy Scouts and Girl Scouts of all ages, Scouters, former members, Amateur Radio operators — in fact, anyone interested in doing a good turn for Scouting and ham radio.

**Operating times:** Saturday, 19 October, 0001 local time to Sunday, 20 October, 2400 local time, though some activity flows over from Friday to Monday to take advantage of DX time differences.

**Calling frequencies:** CW — 3.590, 7.030, 14.070, 21.140, 28.190; Phone — 3.940, 7.290, 14.290, 21.360, 28.990. RTTY, SSTV, ATV on usual frequencies. Check the Novice frequencies. Please move off these calling frequencies to avoid QRM.

**Reports:** NO reports in the form of logs

are necessary. This is not a contest. Exchanges should be relaxed and relate to Scouting and ham radio as much as possible. Brief reports, however, are appreciated giving Scout unit numbers, ham calls used and heard/worked, numbers of participants, interesting incidents and exchanges, etc. Photos with captions especially welcome for the BSA report to the World Bureau. Send them to JOTA Coordinator, W2GND, 216 Maxwell Ave., Hightstown, NJ 08520.

### How

**Radio amateurs:** Invite Scouts/Scout units to your shack. If you do not know any, contact your local Scout office for names of the unit leader in your area. Or, you or your radio club may volunteer to participate in a district or council camporee that weekend. Phone books list council offices as Boy Scouts of America. Call "CQ JAMBOREE" or respond to such calls. Observe all FCC regulations. Consider a FoxHunt for more fun. Call your Scout Office if you can help.

**Scouts:** If you are not a ham or do not have one in your unit, contact one in your area for help. If you need help to find one, contact: Leo Kluger, ARRL, 225 Main St., Newington, CT 06111. Make reports as indicated above, coordinating with your ham helper.

**Certificates:** Postcard-size certificates, like last years, are free and are available to anyone participating in any way. They may be ordered beforehand for presentation during JOTA, or they may be awarded at Scout or ARC meetings later. Requests go to "Jamboree on the Air," 1325 Walnut Hill Lane, Irving, TX 75038-3096 with an SASE large enough to hold the cards ordered, and affixed postage at 22 cents for the first 10 cards and 17 cents for each 10 cards thereafter.

**Pocket patches:** Temporary insignia to wear on the Scout uniform or on jackets are available at \$1.50 each from the Texas address above. Separate orders for certificates and patches will get them to you faster. □

## Boy Scouts celebrate Diamond Jubilee

The 75th Diamond Jubilee anniversary of the Boy Scouts of America will be celebrated in the Los Angeles area by a Camp-O-Rama sponsored by the Los Angeles Area Council of the Boy Scouts of America. Second largest in the United States with 75,000 Scouts, the Council is preparing for a massive three-day, two-night campout, 25-27 October 1985 on the campus of the California State University at Dominguez Hills. The site is adjacent to the velodrome constructed for the XXIII Olympiad last summer.

Commemorative Amateur Radio station N6BSA will be a significant part of this massive campout of 14,000 scouts and 35,000 daytime visitors. Three ham clubs, all members of the Los Angeles Area Council of Amateur Radio Clubs, are hard at work preparing for the event printing attractive QSL cards and setting

up special equipment and demonstrations for the energetic Scouts to operate.

All stations will operate from portable power sources, mostly on 20 and 40 meters plus 2-meter and 220 MHz repeaters and simplex. Operation will be from 1500Z, 26 October through 0200Z, 27 October.

**Frequencies:** Phone — 3.910, 7.250, 14.250, 21.350 or 28.550 MHz; CW — 3.710, 7.110, 14.110, 21.110 or 28.110 MHz; VHF simplex — 145.690 or 223.5 MHz; VHF repeaters — Voice: 146.235 MHz, up 600 (WA6RJA/R); Voice: 224.600 MHz (KA6N/R); Packet: 146.745 MHz, down 600 (N6GPP/R).

Send your QSL card with an SASE directly to the scout operator's home address, obtained from him on the air, or to P.O. Box 5082, Torrance, CA 90503. DO NOT use the Callbook address of N6BSA. □

## Historical crafts

The USS *Becuna*, a World War II submarine and the USS *Olympia*, the Flagship of Admiral Dewey 1898, will be on the air to celebrate the U.S. Navy Birthday the weekend of 12-13 October.

Transmissions from the sub and the cruiser can be heard from 1300Z Saturday to 2000Z Sunday. **Frequencies:** CW — 3590, 7050, 14050, 21090, 28150; Phone 3890, 7240, 14285, 21360, 28600. All frequencies within 10 kHz. Two-meter operation is planned as well as Novice band.

## Barbecue Festival

The Healing Springs Mountain VHF Society, Inc. will operate WD4BBQ for the 2nd Annual Lexington Barbecue Festival on 26 October, from 1300Z to 2100Z on 40, 20 and 15 meters.

Phone — 25 kHz up from edge of

A beautiful certificate has been prepared for the contacts and stateside mailings are business-size SASEs, please. Foreign contacts remit 1 IRC. Call sign to be used will be the operator that is on duty as the club does not have a collective call sign.

Additional inquiries about the ship's history or its operations and QSL information can be directed to: Olympia Radio Amateur Club, P.O. Box 928, Philadelphia, PA 19105, USA. — Submitted by Sam Dedonatis, WB2BWL □

General Class band; Novice — 7125 kHz, as time permits. Also, area 2-meter repeaters.

A special Bar-B-QSL will be sent to those supplying SASEs. Mail to: Healing Springs Mountain VHF Society, Inc., P.O. Box 41, Lexington, NC 27293-0041.

## Chesapeake Appreciation Days

Anne Arundel Radio Club will operate a special event station on conjunction with the annual Chesapeake Appreciation Days celebration held in Sandy Point State Park on 26-27 October. The station will operate under W3VPR, either on 40 meters at 7.25 MHz or on 15 meters at 21.36 MHz, both days between the hours of 10:00 a.m. and 4:00 p.m. A special certificate may be obtained for a QSL and a large SASE to Anne Arundel Radio Club, P.O. Box 308, Davidsonville, MD 21035.

Begun in 1965, the annual Chesapeake Appreciation Days honors the watermen of the Bay, the hearty captains and crews of the skipjack oyster dredgers. They

form the sole-surviving commercial fleet under sail in the nation. Thousands gather each year to watch the skipjack races, the highlight of the event. These races have the unique distinction of being the only sailing matches among large vessels that can be viewed in their entirety from shore.

In 1975, CA Days became a two-day event which includes land and air activities as well as water events. Sandy Point State Park is located on Rts. 50 and 301 at the western terminus of the Chesapeake Bay Bridge, approximately 7 miles east of Annapolis.

— Holly Bevah, N3BMB □

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Fontana, CA 92335-3892  
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# PUBLIC SERVICE

## Please QSL . . .

Fourteen-year-old Chuck Spine is currently in the rehabilitation program at St. Jude Hospital and Rehabilitation Center in Fullerton. He is partially paralyzed from the neck down following a body surfing accident, and will be in rehab for the next four to six months.

Chuck is very interested in Amateur Radio. The day after he received his donated "Tune In The World" kit, he had learned 20 characters of the Morse code. Please note that he must copy the code entirely in his head, as he cannot write it down.

Chuck enjoys talking on the VHF and HF rigs at Rehab Radio station WD6BPT, and particularly likes to get QSL cards. He translates the words on them into CW for practice. Besides the radio, he is proficient at chess and enjoys computers. He is in accelerated classes in school.

If you would like to send a QSL card with some words of encouragement for Chuck's progress into Amateur Radio, please send it to: Chuck Spine, Room 266, St. Jude Hospital, P.O. Box 4138, Fullerton, CA 92634.

Since 1977, Amateur Radio has been part of the rehabilitation program at St. Jude Hospital in Fullerton. For more information on Rehab Radio, contact April Moell, WA6OPS, at (714) 871-3280, extension 3885. □

## One amateur's efforts educate a city

Barry Yoder, W8SJO

This is a story about Amateur Radio promotion. The tale begins in early April of this year, after the writer saw an editorial in another Amateur publication, *Florida Skip*.

It was sobering to contemplate the continuing decline in the number of Amateur Radio operators. Personally, I am not very capable of doing a great deal physically, being in a wheelchair and on 24-hour oxygen. However, let me say I am not writing this for any "feather in the cap" or "credit", but only to illustrate what can be done if you want to.

I wrote an article for the local (*Bradenton Herald*) newspaper and called the paper to explain my desire to write something to inform the community about Amateur Radio — what it is, how many advancements in communication have happened as a result of radio amateur efforts, how the licensing procedure has changed and how Amateur Radio is a public service, assisting the community in the event of disaster or emergency. I also offered a little personal radio autobiography.

I was surprised that they not only were very anxious to run the story (almost word for word), but they sent a photographer out for story and photo; the story and picture covered one-third page! They had never done an article on *Amateur Radio*, to their knowledge.

Next, I called the local cable TV station; they have what they call a "Community Calendar". I told them the same thing about promoting Amateur Radio. They were equally as cooperative and agreed to run *FREE*, on a rotating basis, ads of 30-35 words (of which I wrote about 10). We had two new club members

as a direct result of this. To date, the ads are still running.

Then I called our TV station — Sarasota WXLTV 40, and they at once said, "How would you like to come down day after tomorrow to tape a 30-minute Q&A show on *Amateur Radio*?"

I was shocked, and of course had never been "on the tube" before, but the show was taped and went off well and aired 06 June. The producer of the TV station complimented the Amateur Radio community on the informative nature of the show and even wants to do a follow-up.

Finally, I called the newspaper again

and the "Want Ad" department agreed to run — on a space-available basis — ads promoting Amateur Radio, so I got out the pen and did what I could.

All of this I did with the total cost of 88 cents for stamps, about 5 cents for paper and envelopes, and about \$1 for gas going to and from the TV studio. This was all done from the hospital bed in our house (except the show taping, of course), and it was done because I care about our avocation of Amateur Radio. Even though I may not be around many more years, I want Amateur Radio to be here for all to enjoy! □



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DX with TC70-1s and KLM 440-27 antennas line of sight and snow free is about 15 miles, 7 miles with the 440-6 for portable use such as parades, races, search and rescue, etc. You can add one of the two ATV engineered linear amps listed below for greater DX.

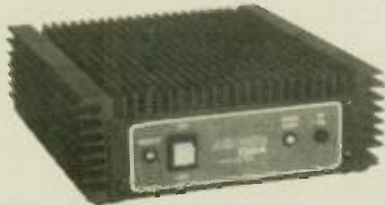
AT 70 cm, antenna height and gain is all important. Foliage can absorb much of the power. Also low loss tight braided coax such as the Saxton 8285 must be used.

The TC70-1 has full bandwidth for color, sound, and computer graphics. You can now show the shack, computer programs, home video tapes and movies, repeat SSTV or even space shuttle video if you have a TVRO.

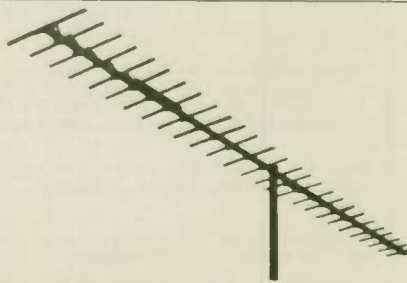
**20 WATT SPECIAL \$399**

SAVE \$9 on the TC70-1 & ELH 730G when purchased together

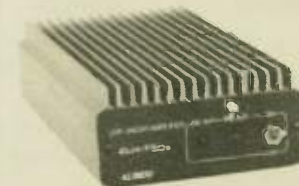
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## Emergency communications

### Do I use my call sign?

Dan Albertson, KA6RCZ

Do I have to give my call sign if I am providing emergency communications? This is a question many hams — who had worked on the Lexington Reservoir fire in Los Gatos during July — found themselves asking. Many thanks are due the amateurs who put in their time at the fire. The agencies who were assisted by hams were very thankful for the services provided.

Anyone who listened on the repeaters which handled the fire traffic probably

noticed the use of "tactical call signs." These call signs such as "CDF Morgan Hill" or "Vasona Com" identified the location of the operator. Some tactical call signs also identified the type and purpose of the unit such as "Drew's Shadow." This operator followed a California Division of Forestry Public Information Officer named Drew, and provided on-the-spot communications when needed.

You would have heard some operators using their tactical call signs in addition to their FCC call signs. Some even used their tactical call signs *instead* of their FCC call signs. You might have even heard some of the net control stations instruct units *NOT* to use their FCC call signs! This has become the subject of debate on some local repeaters.

To settle the argument, I called Phil Kane, an engineer at the FCC District Office in San Francisco. I asked about the fact that many Amateurs think that during emergency communications they don't have to give their FCC call signs, and only tactical call signs need be used. He explained that at one time there were Radio Amateur Civil Emergency Service (RACES) licenses issued to civil defense agencies. At that time, RACES members used the RACES call sign followed by a unit number designation instead of their Amateur call sign. Those licenses are no longer issued and the ones that were issued have expired.

I asked engineer Kane "If there are no longer any RACES licenses, under what authority does a civil defense agency establish a RACES organization?" His answer; "Any civil defense agency that has a RACES organization in place with a plan can activate RACES. At that point, the amateurs are under the control of the civil defense agency and subject to their direction." He reminded me that RACES activation no longer exempts the operator from use of his or her Amateur Radio call sign. Amateur Radio Emergency Service (ARES), Red Cross and California Division of Forestry Volunteer programs that use Amateurs as volunteers are not considered to be RACES organizations. The rules regarding RACES communications are in Part 97, Subpart F.

I spoke with Dave Tyler, N6DRT, E.C.A.C. Pacific Division. He said that when he asked the FCC about call sign use during a RACES exercise the FCC said the stations should identify at the end of each exchange. This means that tactical call signs are permitted but they are *IN ADDITION* to your regular FCC call sign. The regular requirements that

you ID at least every 10 minutes or at the end of each exchange or both are still in effect. In other words you don't have to ID at the end of each transmission; rather, at the end of each exchange of traffic or completion of a conversation with another station.

If we look at Part 97 Subpart F, we'll find it says "Amateur Radio Communications must be conducted in accordance

with the regular rules and regulations governing that use unless superseded by Subpart F." According to Phil Kane at FCC, the newest Subpart F does not provide for use of any call signs in lieu of your regular Amateur Radio station call sign.

Do you have to use your Amateur Radio Call Sign when providing emergency communications? You bet you do! □

## Aviation show: Service and PR

William H. Itter, N9EWA

Over 130 operators from more than 15 Amateur Radio organizations were on hand to assist the Naval personnel during the Aviation Expo '85 held aboard the Naval Air Station in Glenview, Illinois on 13-14 July. In return for their assistance, the hams were offered the opportunity to set up their own exhibits, both static and active, in the heart of the exposition to recruit for and promote the Amateur Radio Service. There, among the many aircraft and aeronautical displays, the amateurs put on an impressive show of the many facets and capabilities of Amateur Radio, from CW and HF to packet and satellite demonstrations.

Glenview's Operations Officer, Lt. John P. Carbine USN (a.k.a. WB8RFB), initiated the arrangements when it was learned that additional communications would be required for the expected crowd of 25 to 35,000. Working with the ARRL, Lt. Carbine contacted the many clubs in the Chicago area by letter and an occasional personal appearance to request their participation. The response was exceptional. Clubs from over 30 miles away answered the call to provide the operators, equipment and exhibit materials.

At the first of two planning meetings, nearly 20 representatives showed up to discuss the event's requirements, display booths, station and antenna locations, a frequency plan, security and advance PR for the clubs participating in the Expo. It was determined that, with the initial response, there would be sufficient operators available to require individuals to only work a single four-hour shift on either day and still have a reserve for the ham exhibits and emergencies.

The primary duties of the operators were defined to be simply an extra pair of eyes for the security personnel and to maintain a communications link with the base's Commanding, Executive and Public Affairs Officers. Collateral duties were to include aid in locating lost children and providing a general information service to the public when possible.

The older vacant control tower atop the exhibit area (Hangar 1) was designated as the location for the net control station and a traffic station, provided by the Illinois Section Traffic Manager Steve Bonine KB9X, for the public to send messages via Amateur Radio. Antennas would be strung for the HF bands across the hangar structure and VHF/UHF verticals would be set up on or around the tower for the simplex net and packet station provided by Tom Talley, KA9QPG, of the Chicago Area Packet Radio Association (CAPRA). A 40-foot booth in one of the hangar bays below would be reserved for the ham exhibits.

By the time the second meeting was held on 29 June, 18 organizations offered 130 operators for the Expo. Final plans were made for frequency coordination, equipment set up, and reserved parking for the participants. A secured area was set aside for rigs, chargers and other personal belongings, and the final plans for patrol areas and special identification were set.

The displays that finally were erected had something for everyone. The Wheaton Community Radio Amateurs, led by Gene McAleer, N9DUW, provided a fully equipped communications van. The DeVry VEC, Jim Georgias, W9JUG, provided information on local Amateur Radio classes and exams. Dick Beers, WD9IIC, of AMSAT couldn't snag OSCAR, but his computer-generated display continually updated the satellite's position on a flat map of the world. Dick also brought 12-foot-long 2-meter and 440 antennas and erected them on a "T" structure as an eye-catching static display.

"Dr. QSO" was set up by Joe Schroeder, W9JUV, the representative of the Northern Repeater Association (NORA) and the volunteer coordinator for all the clubs participating in the Expo. While the VHF talk-in station was aiding the relief operators, an HF station, provided by the Metro ARC President Jack Montgomery, K9DQU, was giving the public a glimpse of the real hobby end of Amateur Radio ... the good old-fashioned ragchew.

By the close of the two-day event, one unanchored biplane wanting to solo in the strong winds, 10 lost children and an apparent heart attack victim all received immediate attention by the hams on duty. There were many messages sent, pieces of literature given out, and inquisitors satisfied by the personal contacts with the operators.

The ham organizations and their Expo coordinators that participated were Joe Schroeder, W9JUV, of the Glenview-based NORA; Marty Rukin, N9BTD, from the North Shore Radio Club of Highland Park; Mike Dalton, KA9PIO, of Mt. Prospect's ECHO repeater; Paul Brod, N9EJJ, from the McHenry County Wireless Association; Chicago FM Club's Dick Hersch, K9FFY; Gene McAleer, N9DUW, of the Wheaton Community Radio Amateurs; Elk Grove Radio Club's Dick Brownlee, KA9IVY; Bill Itter, N9EWA. (please turn to page 32)

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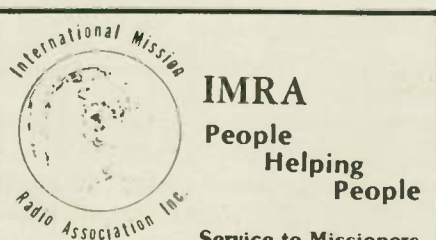
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# AWARDS

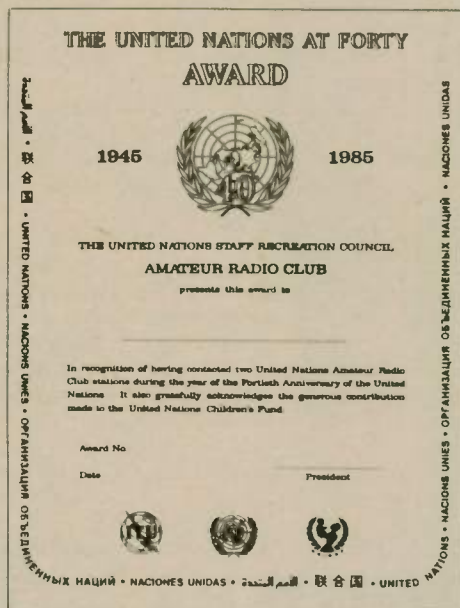
## The UN at 40 Award

On 24 October 1985, the United Nations will celebrate the 40th anniversary of the coming into force of the United Nations Charter signed in San Francisco in 1945. To celebrate this event, and in the spirit of developing friendly relations among nations, the United Nations Staff Recreation Council-Amateur Radio Club is sponsoring the "UNITED NATIONS AT 40 AWARD".

This award is available to any Amateur Radio station (or SWL) that has contacted two of the three Amateur Radio stations operating with the United Nations prefix, during the United Nations 40th anniversary celebration year from 01 January to 31 December 1985. Contacts can be made on any band or mode.

The three stations are: 4U1UN at the United Nations HQ in New York, USA; 4U1TU at the International Telecommunications HQ in Geneva, Switzerland; and 4U1VIC at the Vienna International Centre in Austria.

Applicants must send a list of the stations worked, including date, time, mode,



report and band. This list must contain a signed statement vouching for the bona fides of the application. The cost of the award is U.S. \$5 or 15 IRCs of which U.S. \$4 will be donated to the United Nations Children's Fund (UNICEF).

The application must be sent before 01 February 1986 to: United Nations Staff Recreational Council ARC, United Nations, Room DC1-0724, Box 20, New York, NY 10017. □

## NATIONAL PARKS 100 AWARD



## National Parks 100 Award

To help publicize the 100th anniversary of Parks Canada, CRRL is sponsoring a National Parks 100 Award. The idea is to earn 100 points by working Canadian stations during this anniversary year. For Canadian stations, contacts with most Canadian stations count for 1 point; contacts with Canadian stations using special prefixes count for 5 points; contacts with Canadian stations operating from Parks Canada sites count for 10 points. For U.S. and DX stations, points are doubled.

To receive the award, send a copy of your log, certified by two other amateurs, to CRRL National Parks 100 Awards Manager, Garry Hammond, VE3XN, 5 McLaren Avenue, Listowel, Ontario N4W 3K1, CANADA. Please include a donation of \$1 or 3 IRCs to help pay for the cost of printing and mailing the awards. And now, work those stations! □

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## RTTY DX 'Maple Leaf' Sweepstakes

The Canadian Amateur Radio Teletype Group (VE3RTT) will be holding its 25th Annual RTTY DX "Maple Leaf" Sweepstakes on 19-21 October 1985.

The award winners of the 1984 Sweepstakes were:

**Top Ten Single Operators** (engraved plaques from RTTY Journal and CARTG) — Lucio Oriani, I2OLW; IK5CKL; J. Dudahl Lasson, OZ1CRL; Leo Small, K4AGC; Bo Stjernberg, SM6ASD; Arpad Sarzeki, YU7AM; EA5CVR; Willy Rogg, HB9HK; Roy Gould, KT1N; and Al Crigger, NE4R.

**Top Canadian score** (plaque sponsored by "President CRRL Award") — Bill Slaughter, VE7CIM.

**Multi-Operator high score** (plaque by RTTY Journal) — City Students Radio Club of Sofia, Bulgaria, LZ1KDP.

**SWL Printer high score** (plaque by CARTG) — NL4483, Netherlands.

**Most two-way contacts with Canadian stations** (plaque by Fraser Jamieson, VE2JR) — Bill Slaughter, VE7CIM. □

# USQS KM7Z

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## FAR scholarship winners

The Foundation for Amateur Radio is pleased to announce the 1985 winners of the 19 scholarships which it administers.

**John W. Gore Memorial Scholarship** — \$900: James H. Baker, KI4YN, Alexandria, VA.

**Richard G. Chichester Memorial Scholarship** — \$900: Eugene S. Reilly, KA8JIG, Cincinnati, OH.

**Edwin S. Van Deusen Memorial Scholarship** — \$350: Richard K. Soper, KA2IKV, Syracuse, NY.

**QCWA Memorial Scholarships** — \$600 each: Francis P. Horan, KA3CJR, Drexel Hill, PA; Hai T. Nguyen, KA0ALZ, Colorado Springs, CO; Carl H. Puckett, KA7BWC, Great Falls, MT; John E. Schnupp, N3CNL, Ephrata, PA; David J. Schmocker, KJ9I, Oconomowoc, WI; John G. Sullivan, N2DYC, Haddonfield, NJ.

**QCWA Robert S. Cresap Memorial Scholarship** — \$500: Douglas Swiatlowski, KA2KMT, Camillus, NY.

**Radio Club of America Scholarship** — \$500: James W. Healy, NJ2L, West Hurley, NY.

**Edmund B. Redington Memorial Scholarship** — \$500: David Swiatlowski, KA2KLM, Camillus, NY.

**Young Ladies' Radio League Scholarship** — \$500: Diane E. Willemin, N8CAY, Elyria, OH.

**Amateur Radio News Service Scholar-**

**ship** — \$500: Michael Krensavage, KA3CUP, Marietta, GA.

**Columbia (MD) Amateur Radio Association Scholarship** — \$650: Christine L. Gray, KA3NAK, Elkton, MD.

**Baltimore (MD) Amateur Radio Club Scholarship** — \$500: Eric J. Smith, KA3KJO, Silver Spring, MD.

**Dade Radio Club Tropical Hamboree Scholarships** — \$500 each: Christopher A. Atkins, KA2QWC, Fort Pierce, FL; David R. German, N4FAD, Sarasota, FL.

**Lewis W. Wilkinson Memorial Scholarship** — \$500: Wayne F. Poole, KC4XL, Surfside, FL.

These scholarships were open to all radio amateurs meeting the qualifications and residence requirements of the various sponsors. The Foundation is a non-profit organization representing 50 clubs in Maryland, the District of Columbia and northern Virginia. It is devoted exclusively to the scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

Announcement of the 1985 awards will appear in the April or May issue of the major Amateur Radio publications. Additional information regarding the Foundation's Scholarship program can be obtained from FAR Scholarships, 6903 Rhode Island Ave., College Park, MD 20740. □

## A cable/ham contest?

Joe Moell, K00V

I have learned from John Moore, NJ7E, of Phoenix, Arizona, that their local CATV company (Times/Mirror) has established a major program of cooperation with local hams. They are requesting help in finding leakage out of the cable, and are sponsoring a contest with \$1,500 in ham gear as first prize! The contest is supervised by a committee from the Arizona

Repeater Association.

All this has apparently grown out of a big effort on the part of Times/Mirror to eliminate leakage. Two years ago, hams could hardly hear the 145.25 MHz repeater in some areas due to the leakage, but now things are much better.

Is this what we need in southern California? Can we hope to get this kind of cooperation?

—Fullerton RC, CA □

## Sometimes it's hard to end a QSO

We all have our own methods, but here are a few ideas submitted by little George Myers, KA6WZR:

The XYL just came in and said last call for dinner or she throws it out . . . hi hi . . . so gess I btr QRT now . . .

There is a thunderstorm heading my way and I don't want to take a lightning strike so will CUL . . .

Just got a phone call from old school buddy I hav not heard fm in 15 years . . . XYL needs me to help her unload car

full of groceries so btr go es give her a hand . . . hi hi . . .

Wow 2 car collision in front of my house and I have to go see if anybody is hurt . . .

Well it's time for my daily meeting with the guys on the 2-meter net . . .

The XYL sez it's time to come to bed or she locks the bedroom dor hi.

Well I btr go es let the puppy out into the yard so will CUL . . .

—Overmodulation, Poinsetta ARC □

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## Commodore info wanted

Does anyone have information on ham radio software for the Commodore B-128 computer? If so, I would be grateful to receive it.

W. DALE CRYDERMAN, KA9EIZ  
518 N. Lincoln  
Warsaw, IN 46580

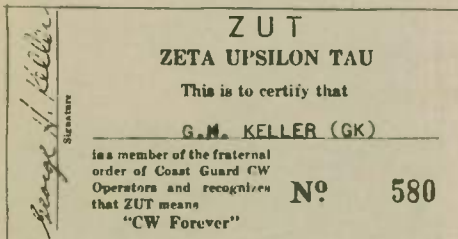
## Lost & Found Dept.

I received QSL cards from the 6-land buro today. Two cards that do not belong to me also showed up. Both were for CW contacts with DL8GAD in Sverdlovsk, Russia. The QSOs took place on 25 March 1984 at 15:45. Anyone out there claiming these QSLs, please get in touch with me — and send SASEs!

CRAIG WILLIAMS, KB6DRW  
375 Lomax  
Idaho Falls, ID 83401

## ATTN: Ex-'Coasties'

I retired from Coast Guard Air-Sea Rescue in 1963 — aviation electronics man 1st Class. Shown here is copy I received while stationed at Coast Guard Air Station Floyd Bennett Field, Brooklyn, New York, in early 1950s. We didn't have fone — SSB — then, although pilots had VHF, so we radio ops used CW at bases and airborne.



Was just wondering if any ex-Coastie "hams" recognize this old bit bragging. I would like to hear from them.

GEORGE KELLER, W2HBO  
60-15 60th Place, #2  
Maspeth, NY 11378

## Novice or Tech?

With regards to the proposed expansion of Novice privileges, I fail to see the real benefit in offering something extra to someone who has no idea and, therefore, no interest in the hobby. An increase in our ranks is not going to come from either fewer restrictions or more privileges. Go ahead and offer anything you want to the "man on the street" and then ask him if this would entice him to become a ham. You're going to get one of three answers: (1) Yes; (2) No; (3) What's Amateur Radio? If we haven't yet explained to the Eskimo what a refrigerator is, what will he care that it comes free with an automatic ice maker? And even once it's explained, how do you convince him that he wants it?

"The young kids today are involved in computers." Of course they are, they've been getting beat over the head with it

since the advent of the pocket calculator and video game. It's even becoming a required course in some schools. I haven't seen ICOM, Kenwood, et al. matching Apple or IBM for donating or discounting equipment either. It's not just computers, it's sports, part-time jobs, hi fi, automobiles, places to go, things to do, and people to see. The competition is fierce and we aren't even advertising, much less utilizing our 400,000-man sales force!

As for the proposal itself, I'm beginning to feel like I've been had. We've argued no-code until we can't stand it any more and now this compromise comes along hot on its heels. Are we still smart-

ing from the no-code fiasco enough to agree on any proposal that comes up? Is somebody pulling a New Coke/Classic Coke marketing ploy by us?

If you want to make the first ham ticket more inviting by broadening the privileges, why reinvent the wheel? Just dump the Novice ticket and make the first license the Technician Class. Now you've given the newcomer all the privileges from 6 meters on up plus CW on the HF bands, the combined tests from the two classes would be one that's worth its salt, there's only a minimal change to the rules and regulations, you don't create more subbands to confuse



everyone. It'll be only a small matter to adjust the VE program, and there's still an incentive to upgrade.

Considering that it's the only alternative at the moment, I'll support the proposal as written, but I can't help but feel that we aren't seeing the forest for the trees. Our problem is not that a Novice license doesn't offer enough to motivate a non-ham, it's that the non-ham doesn't know what a ham is. Actions speak louder than words, folks. Forget the many pages of legalese and do a little PR work at the grass roots level.

WILLIAM ITTER, P.E., N9EWA  
Shaumburg, Illinois

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## Friendship grows from chance QSO

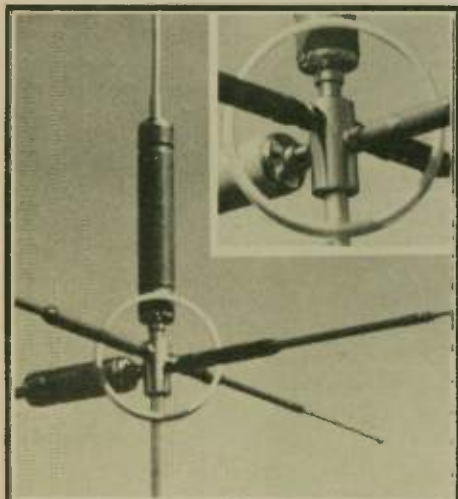
For about five years now, I have had a CW sked with Sam Scheltens, PA2SAM. His QTH is a city called Sappemeer in the Netherlands.

When we met in the CW bands by chance for the second time and both remembered our first QSO, we exchanged letters. Little did we know at that time that a real friendship would grow.

We set up a sked on 21.050 for each Fri-



Sam Scheltens, PA2SAM, and XYL Grietje eating lobster. They said they did not care for it, but they did like many other foods.



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day at 1500 UTC. Through the years we have exchanged many things. He has sent my daughter a pair of wooden shoes, and my son books and stamps, and at Christmas time, special cookies and candy. I have sent things to Sam and his family, like maple syrup and maple candy, photo books about lobster fishing and of life here in New England. But it was only a dream that we would ever meet — one I did not even really think about for a long time.

Sam works very little SSB and I do not work any. One day he sent me a tape — for the first time I heard his voice. He speaks very fine English! As the months passed, I found out that his daughter was an exchange student in Rockford, Illinois. He and I were both CW Award Hunters, and we are members of the same radio club in Germany — the DIG (Diploma Interests Group). It is a very fine club made up of people from all around the world who are interested in award, or — as the Germans call it — diplom hunting. Sam is DIG #2863 and I am DIG #2901.

About a year ago, Sam said that he and his XYL Grietje were going to come to the USA. I was so excited that I about fell out of my chair. I am sure he was also excited, as he said he would send me a letter right away.

His lovely wife was going to school to study English for — in his words — “the trip of our lives.”

As time passed and all plans made, I would go to Boston, Massachusetts on 13 May to meet them. They flew into New York and came to Boston by train. What a thrill to meet them at the station — one I will never forget.

The Scheltens stayed with us for seven days. I wish it had been much longer, as there were many more things that I know they would have liked to see. They took lots of photos, many of old wooden houses around here — some over 200 years old. We went for a nice boat ride and went to a store that has over 5,000 guns on display. We went to a couple of shopping malls and some supermarkets — all very interesting to Sam and Grietje.

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I knew as each day passed that it was that much closer to the day they would leave. From here they went to Rockford, Illinois, then to Salt Lake City, then to Sandy, Oregon to stay at another ham's QTH.

We have had to change our sked now, as the bands are so bad. Now on 14.050 at 1600 UTC, but not much luck for a solid QSO since they have returned home.

I will never forget Sam's last spoken

## What do you call a lady ham?

It seems that Amateur Radio is not too flattering to lady hams. As an example, what do you call a lady ham? XYL is used to designate women but usually is applied to the wife of a ham.

Personally, I prefer YF; it even sounds like wife. Anyway, what woman wants to be known as an Ex-Young Lady? YF can also be used to designate the divorced wife of a ham as a XYF.

While we're on the subject of marriage, what do you call the non-ham husband of

words to me at the train station: “To say good-bye to an old friend is to die a little bit inside.” And I could only say yes.

We hams of the world are very lucky to share friendships that know no borders. So the next time you have a nice DX QSO, just think . . . it could grow into a real friendship like PA2SAM and KB1FK. I sure hope so.

ALBERT LIBBY, KB1FK  
Newington, New Hampshire

a lady ham? An XYM I guess.

Well, back to my original question, what do you call a lady ham? I think a good answer is to call her a YLH or Young Lady Ham.

DENNIS WYMAN, KB4DCE  
Highland Springs, Virginia

Are you involved in public service?



Ed Ferrel, W7EQU, of Spokane, Washington is the proud owner of this station. Ed, a 67-year-old retired salesman, has been licensed for 28 years. He particularly enjoys 20 and 15-meter CW. His first rig was a single 6AG7 at 5 watts. He is a member of QCWA, ARRL, 10-X International, and served as Spokane County EC, Official Observer and Air Force MARS. Ed is a past president of three radio clubs. His other interests include photography (complete darkroom) and fraternal work.

Equipment shown: TS-830S, Swan Mark II, AEA CP1 Computer Patch, Commodore 64 keyboard, disk and tape drives, 12" Green Monitor and an IC-25H for 2-meter FM.

Antennas: Hy-Gain Explorer 14 at 60 feet on a Hy-Gain HG52SS crank-up tower. Inverted V's for 40 and 80 meters are hung under the beam. This beam has



accounted for over 60 new counties in the past two years.

Ed will receive a free year's subscription.







# DX WORLD

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

## Activities Calendar

- 21-22 September Can-Am Contest (SSB)
- 21-22 September Scandinavian Activity Contest (CW)
- 28-29 September Scandinavian Activity Contest (SSB)
- 26-27 October CQ World Wide DX Contest (SSB)
- 23-24 November CQ World Wide DX Contest (CW)

**W-100-N**  
**259. EL2AO** **Juan Tejero**

Our sole applicant this month was Juan Tejero, EL2AO, who is now living in Kitchener, Ontario. All contacts were made using SSB from his Liberia location at Robertsfield.

## Albania (ZA)

There seems to be always a lot of smoke on this one but no fire. But perhaps a spark will ignite. *QRZ DX* reports that Martti Laine, OH2BH, was to be in Tirana for two or three weeks at the invitation of the Albanian government.

In *DX News Sheet*, mention of a couple of German operators had planned to go to Albania but one of the op's had to cancel.

## Mount Athos (SV/A)

Evidently, the Mount Athos issue isn't dead yet. According to *QRZ DX*, Bob Read came on the air from Mount Athos operating as SV0BV/A, reportedly with sufficient permission. He evidently only operated for two days the end of July. This is the same operator of the San Felix farce back in 1981. Remember KF10/CE0X?

The operation by SV0BV and DL7FT, who was reported to be there the end of June, has created some bad feelings, especially the Greek DXers.

## Kampuchea (XU)

There is talk that XU1SS should begin at any time, so keep your ear tuned. Check 14.227 MHz, as that might be just the spot they show.

## Kalawao County (KH6)

If you happened to work KH6F near the end of July, that was more than just Hawaii. This was the operation by the Kauai ARC at the leper settlement on the island of Molokai. The settlement is a peninsula that juts out on the north coast of the island and is isolated from the rest of the island. The only way in is by boat, air or a steep trail down the mountainside.

Although Molokai counts as Maui County, the settlement is a county in itself. This county, Kalawao, is considered the rarest. Even if you are not a county hunter, this one would be a good one to have. See QSL routes for the address to which to send your requests if you worked this recent operation.

## Kerguelon Island (FT8X)

Activity is showing from this one. There have been reports of three stations:

FT0XA, FT0XB and FT0XC. And there is a rumor of a fourth station — FT0XD — about to show soon. FT0XA and FT0XB have been reported with Jim Smith, P29JS, and his net on 14.220 MHz from 0645 UTC. FT0XB can also be found down around 14.190 MHz and has been worked as late as 1000 UTC. The third station, FT0XC, was reported on 14.186 MHz at 1000 UTC early July working W5's.

## Taiwan (BV)

Back in early March, there was a Japanese DXpedition to Taipei, the Republic of China. The operation, using the call BV0AC, was assisted by the China Radio Association and Tim Chen, BV2A/BV2B. The station was located on the upper floor of a 12-story building in the eastern part of Taipei.

Ernie Bracy, W1BFA, submitted a few photos of this operation of which we have selected two.

## China (BY)

*DX News Sheet* reports that QSL cards for the station signing BT0NMN a few months ago are being received. The station was located in the Tibet Autonomous Region at the basecamp of the Chinese and Japanese mountaineering expedition to climb Mount Naimona'nyi, which is one of the highest unclimbed mountains in the world.

A station signing 3H8C and giving his name as Ryo was reported recently. The operation at this time appears questionable and the operator also said that other "special" stations, XS2MC, XS2PC, 3H0P and BY2LP, should be on.

Check the W7PHO Family Hour on 14.227 MHz from 1500 UTC, as BY1PK and BY1QH have been showing on frequency. BY1QH has been reported elsewhere on the band, usually lower in frequency near 14.160 MHz as early as 1100 UTC.

On CW, BY1SK has been reported near 14.025 MHz at 0945 UTC and was reported working the East Coast higher in the band on 14.063 MHz at 1000 UTC.

*The Long Island DX Bulletin* lists the nine existing stations according to a let-



Here is the crew of BV0AC. From left to right (top row): Yutaka Yoshii, JA9AG, Director JARL; Richard L.C. Huang, Public Relations Manager of the China Radio Association; Tadatsu Taina, JA9AL; and Masa Kobayashi, JA9BMP. (Front row): Kiichi Emma, JA9AA; Masa Oyama, JA9ABW; Takuo Maeda, JA9ELB; and Tim Chen, BV2A/BV2B.

ter received from Tong, the Chief Operator of BY1PK. The QSL route is included:

BY1PK	P.O. Box 6106, Beijing
BY1QH	P.O. Box 2654, Beijing
BY1SK	P.O. Box 2916, Beijing
BY4AA	P.O. Box 205, Shanghai
BY5RA	P.O. Box 730, Fouzou
BY5RF	P.O. Box 209, Fouzou
BY8AA	P.O. Box 607, Chengdu
BY8AC	P.O. Box 607, Chengdu
BY0AA	P.O. Box 202, Wulumqi

BY5RF, BY8AA and BY8AC are assigned to the Youth Group activities and the new call BY0AA is assigned to the CRSA Xinjiang Branch in Xinjuan Uygur, which is in the rare Zone 23.

## Wake Island (KH9)


Gary Dein, NY6M/KH2, and Edward Campbell, KB6DAW/KH2, will be on

Wake Island from 22 October through 04 November to give out Wake Island to the deserving. They will be on all bands, SSB and CW, and hope to make 15,000 contacts. They will be using the following calls and the modes indicated:

KB6DAW/KH9	SSB
NY6M/AH9	CW
KB6DAW/NH9	CQ World Wide DX Contest

They are asking everyone, even if you have worked Wake Island, to please call them. In addition to the hoped for 15,000 QSOs, they would like to make DXCC, WAS and WAZ from that location.

As for some constructive comments, might I add the following two suggestions: 1) During the contest, use Gary's NY6M call as it is shorter and will take less time to send than the KB6DAW call. 2) If you need those rarer calls in your log,



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	PCS 3000/TT Pad	199.95	<b>KENWOOD</b>				FV101Z	195.00
	Remote Cable-2000	25.00		TS 120S W/Mntng Bkt	\$399.95		FT301D, FP301	399.95
	Leather Case	10.00		TS 520 CW	429.50		FT-7 20W Xcvr	299.95
				TS 520	389.50		FT101E	439.50
<b>CUSHCRAFT</b>				TS 520SE	449.50		FT101EE	389.50
	A4-A744 40, 20, 15, 10 MTR Yagr	\$239.00		VFO-120	99.95		FT101B W FM	369.95
	A3-A743 40, 20, 15, 10 MTR Yagr	189.00		TV-502 2 Mtr VTR	149.95		FT101	299.95
<b>DENTRON</b>				TS820 (C)	469.95		FRG-7 Gen Cov Rcvr	169.95
	W2 Watt Mtr	\$ 55.00		VFO200 (C)	119.95		FT-221R	289.50
	80-10AT Tuner	29.95		TR3500	219.95		FT-221 W/Preamp	289.50
<b>DRAKE</b>				Spkr/Mic - 2500	25.00		FT208R	189.95
	TR4CW, AC4, MS4	\$369.50		BT-1 Alkaline Batt Case	5.50		FT203 2M HT	149.95
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<b>HEATHKIT</b>				HMG-1 Hezdrset/Vox 2600/3600	29.95		Cubic Astro 150	\$349.50
	HR1680 Rcvr	\$ 79.95		TR-8400	229.95		Collins KW4M 2A (Round)	
	HM 102 Watt Mtr	45.50		<b>MFJ</b>			516-F-2 P S	549.95
	VL1180 10/80W 2M Amp	95.50		989 3KW Tuner	\$239.95		HAL DS3100ASR/St-6000 (C)	CALL
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	Leather Case - 2AT	19.95						
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	Interface II	\$179.95						

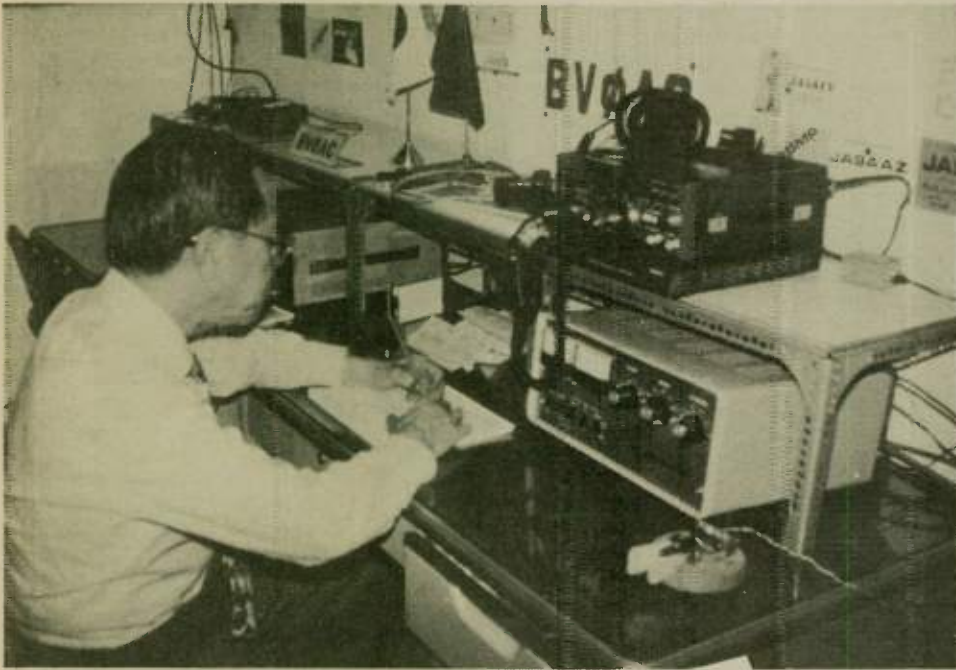
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WORLDRADIO, October 1985 19

World Radio History





Tim Chen, BV2A/BV2B, at the operating position of BV0AC.

don't expect them to come looking for you; go after them.

All QSL cards will be handled by Edward at his Guam location. Refer to the QSL routes for the address.

#### Prefixes

QRZ DX reports that the QSL cards for the recent Swedish activity celebrating the SSA (the calls 7S1SSA through 7S7SSA and 7S0SSA), will not be ready for some time yet — probably not till after Christmas.

There were over 10 different operators at 7S5SSA, many of them giving their own call as QSL manager. If you don't receive a QSL card for your contact within a year, contact SM5CAK or SM5CWV.

The Canadians are a good source of strange prefixes. Stations in Saskatchewan recently used the CH5 prefix to celebrate the centennial of the Riel Rebellion.

Also, as reported in Bob Winn's QRZ DX: "Special event station U2CES honored Yelena Stempkovskaya, a radiowoman who was captured by the retreating German troops near Stalingrad, revealed nothing under torture, and was shot." The operators were reported to be all YLs including UC2AIU, UC2AAR, UC2AHY and UC2AIZ.

#### IOTA

We have been trying to stir up some interest in the IOTA (Islands-on-the-Air) program which was established many years ago by Geoff Watts, now a function

of the RSGB. Several DXCC countries count for this awards program, but in some cases several DXCC countries count only for one island group. In some cases, more than one island group will make up one DXCC country.

We have prepared a list of the current DXCC countries that have IOTA reference numbers assigned to them. In the case where more than one number is assigned, we have used the reference number of the most active or prominent island group.

A35	Republic of Tonga	OC-49	KH5K	Kingman Reef	OC-24
A92	Bahrain	AS-02	KH6	Hawaii	OC-19
BV2	Taiwan	AS-20	KH7	Kure Island	OC-20
C21	Republic of Nauru	OC-31	KH8	American Samoa	OC-45
C6A	Bahamas	NA-01	KH9	Wake Island	OC-53
CE0A	Easter Island	SA-01	KH0	Mariana Islands	OC-26
CE0X	San Felix Island	SA-13	KP1	Navassa Island	NA-17
CE0Z	Juan Fernandez Islands	SA-05	KP2	Virgin Islands	NA-23
CO	Cuba	NA-15	KP4	Puerto Rico	NA-15
CT2	Azore Islands	EU-03	KP4	Desecheo Island	NA-23
CT3	Madeira Islands	AF-14	KX6	Marshall Islands	OC-28
D44	Republic of Cape Verde	AF-05	OH0	Aland Islands	EU-02
D68	Comoros	AF-07	OJ0	Market Reef	EU-53
DU	Republic of Philippines	OC-42	OX	Greenland	NA-18
EA6	Balearic Islands	EU-04	OY	Faroe Islands	EU-18
EA8	Canary Islands	AF-04	P29	Papua New Guinea	OC-34
EI	Republic of Ireland	EU-05	PJ	Netherlands Antilles	SA-06
FB8W	Crozet Island	AF-08	PJ	St. Maarten	NA-22
FB8X	Kerguelen Islands	AN-04	PY0F	Fernando de Noronha	SA-03
FB8Z	Amsterdam Island	AF-02	PY0P	St. Peter and St. Paul	SA-14
FC	Corsica	EU-14		Rocks	
FG	Guadeloupe	NA-22	PY0T	Trindade Island	SA-10
FS	Saint Martin	NA-22	S79	Seychelles	AF-24
FK8	New Caledonia	OC-32	S92	Sao Tome	AF-23
FM	Martinique	NA-24	SV	Crete	EU-15
FO0X	Clipperton Island	NA-11	SV	Dodecanese	EU-01
FO8	French Polynesia	OC-46	T2	Tuvalu	OC-15
FP8	St. Pierre	NA-32	T30	West Kiribati (Gilbert Is.)	OC-17
FR7	Glorioso Island	AF-11	T30	West Kiribati (Ocean Is.)	OC-18
FR7	Juan de Nova	AF-12	T31	Central Kiribati	OC-43
FR7	Europa	AF-09	T32	East Kiribati	OC-24
FR7	Reunion Island	AF-16	TF	Iceland	EU-21
FR7	Tromelin	AF-31	TI9	Cocos Island	NA-12
FW8	Wallis Island	OC-54	UA1	Franz Josef Land	EU-19
G	England	EU-05	V2A	Antigua	NA-22
GD	Isle of Man	EU-05	VE1	Sable Island	NA-63
GI	Northern Ireland	EU-05	VE1	St. Paul Island	NA-10
GJ	Jersey Island	EU-13	VK	Australia	OC-01
GM	Scotland	EU-05	VK	Lord Howe Island	OC-04
GU	Guernsey Island	EU-13	VK9	Willis Island	OC-07
GW	Wales	EU-05	VK9	Christmas Island	OC-02
H44	Solomon Islands	OC-47	VK9	Cocos-Keeling Island	OC-03
HC8	Galapagos Islands	SA-04	VK9	Mellish Reef	OC-72
HH	Haiti	NA-15	VK9	Norfolk Island	OC-05
HI	Dominican Republic	NA-15	VK0	Heard Island	AN-03
HK0	Malpelo Island	SA-07	VK0	Macquarie Island	AN-05
HK0	San Andres Island	NA-33	VP2E	Anguilla	NA-22
HK0	Providencia Island	NA-49	VP2K	St. Kitts	NA-22
IS0	Sardinia	EU-24	VP2M	Montserrat	NA-22
J37	Grenada	NA-23	VP2V	British Virgin Islands	NA-23
J6	St. Lucia	NA-23	VP5	Turks Island	NA-03
J73	Dominica	NA-22	VP5	Caico Island	NA-02
J87	St. Vincent	NA-23	VP8	Falkland Islands	SA-02
JA	Japan	AS-07	VP8	South Georgia Islands	AN-07
JD	Minami Toroshima	OC-73			
JD	Ogasawara	AS-31			
JW	Svalbard	EU-26			
JX	Jan Mayen	EU-22			
KC6	Federal States of Micronesia	*			
KC6	Republic of Belau	*			
KG4	Guantanamo Bay	NA-15			
KH1	Baker and Howland Islands	**			
KH2	Guam	OC-26			
KH3	Johnston Island	OC-23			
KH4	Midway Island	OC-30			
KH5	Palmyra Island	OC-24			
KH5	Jarvis Island	**			

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VP8	South Orkney Islands	AN-08
VP8	South Sandwich Islands	AN-09
VP8	South Shetland Islands	AN-10
VP9	Bermuda	NA-05
VQ9	Chagos	AF-06
VR6	Pitcairn Island	OC-44
VU7	Andaman Islands	AS-01
VU7	Laccadive Islands	AS-11
XF4	Revilla Gigeo	NA-30
YB	Indonesia	OC-21
YJ8	New Hebrides	OC-35
YV0	Aves Island	NA-20
ZD7	St. Helena Island	AF-22
ZD8	Ascension Island	AF-03
ZD9	Tristan da Cunha	AF-29
ZD9	Gough Island	AF-30
ZF	Cayman Islands	NA-16
ZK1	South Cook Islands	OC-13
ZK1	North Cook Islands	OC-14
ZK2	Niue	OC-40
ZL	New Zealand	OC-36
ZL7	Auckland and Campbell Islands	OC-37
ZL/C	Chatham Island	OC-38
ZL8	Kermadec Island	OC-39
ZM7	Tokelau Islands	OC-48
ZS2	Marion Island	AF-21
1S	Spratly Island	AS-51
3B6	Agalega Island	AF-01
3B6	St. Brandon Island	AF-15
3B8	Mauritius	AF-16
3B9	Rodrigues Island	AF-17
3C0	Annobon	AF-39
3D2	Fiji Islands	OC-16
3Y	Bouvet Island	AN-02
4S7	Sri Lanka	AS-03
5B4	Cyprus	AS-04
5H3	Tanzania	AF-32
5R	Malagasy Republic	AF-13
5W1	Western Samoa	OC-45
6Y5	Jamaica	NA-15
8P6	Barbados	NA-21

8Q7	Maldiv Islands	AS-13
9H	Malta	EU-23
9V	Singapore	AS-19
9Y	Trinidad	SA-11
9Y	Tobago	SA-09
	Abu Ail	AS-35
	Jabal at Tair	AS-34

The above list is not the most recent DXCC list and there have been some prefix changes to what is given above. If the ARRL Awards Committee approves the Pribilof Islands as a new DXCC country, that one will count as NA-28.

#### IARU news

Two more countries have been elected to membership in the International Ama-

teur Radio Union. The 79 member-societies cast their votes to admit the Kuwait Amateur Radio Society (KARS) and the Brunei Amateur Radio Transmitting Society (BARTS). There were no opposing votes.

Kuwait, according to 1984 data figures, has 166 operators and stations, with 170 members in their society, 125 of that number being licensed. Presently, Brunei claims 17 operators and stations with 23 society members, which include 16 licensed amateurs.

The IARU membership now stands at 81 which includes the following:

Region 1 — URA (Andorra), OVSV (Austria), ARAB (Bahrain), UBA (Bel-

gium), BFRA (Bulgaria), CARS (Cyprus), ARAD (Djibouti), SRAL (Finland), REF (France), RSTG (Gambia), RKDDR (German Democratic Republic), DARC (Federated Republic of Germany), IRTS (Ireland), ARI (Italy), ARAI (Ivory Coast), RSK (Kenya), KARS (Kuwait), RAL (Lebanon), LARS (Lesotho), LRAA (Liberia), RL (Luxembourg), ARM (Monaco), ARAM (Morocco), VERON (Netherlands), NARS (Nigeria), NRRL (Norway), ROARS (Oman), PZK (Poland), REP (Portugal), ARSM (San Marino), ARAS (Senegal), SARL (South Africa), URE (Spain), SSA (Sweden), USKA (Switzerland), TIR (Syria), TRAC (Turkey), RSF (U.S.S.R.), RSGB (United Kingdom), SRJ

## 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 low angle antennas, Maximum Usable Frequency (MUF) and Frequency of Optimum Transmission (FOT). Requests should be sent to Bill Welsh, W6LS, 2814 Empire, Burbank, CA 91504. Each request should be accompanied by a self-addressed stamped (54¢) envelope at least 9" x 11 1/2".

#### NOVEMBER 1985

UTC	AFRI	ASIA	OCEA	EURO	SO AM
0100	15.8	21.8	27.9	9.9	16.8
0200	12.9	17.2	22.6	9.8	14.2
0300	11.0	14.0	17.7	9.0	13.2
0400	10.1	12.7	14.9	7.9	13.1
0500	10.1	12.1	13.6	6.6	13.1
0600	10.4	12.1	13.2	8.1	13.7
0700	10.7	11.1	13.0	10.6	14.6
0800	10.8	10.9	12.6	11.2	14.8
0900	10.6	10.7	12.1	11.5	15.2
1000	9.9	11.7	12.4	11.2	13.9
1100	9.2	12.2	13.3	10.3	11.7
1200	9.5	11.9	13.1	9.8	11.5
1300	11.6	10.8	11.6	10.9	14.9
1400	15.1	10.9	11.7	14.5	20.4
1500	18.7	12.5	16.0	18.0	25.0
1600	21.3	12.1	17.3	18.4	27.3
1700	23.2	12.1	16.0	15.7	27.7
1800	24.9	12.1	16.4	13.7	27.6
1900	26.4	13.4	18.8	11.4	27.8
2000	27.1	16.1	21.6	10.0	28.3
2100	26.7	19.5	23.3	9.1	28.4
2200	24.8	23.9	23.9	9.1	27.3
2300	22.6	26.5	24.7	9.5	24.5
2400	19.2	25.4	26.3	9.8	20.6

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BEST ACCURACY: within 30MHz  
MAX POWER: of calibrated frequency 100 watts  
CONNECTORS: impedance 50ohms BNC type

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(Yugoslavia) and ZARS (Zimbabwe).

**Region 2** — ABARS (Antigua and Barbuda), RCA (Argentina), BARS (Bahamas), RSB (Bermuda), RCB (Bolivia), LABRE (Brazil), CRRL (Canada), CARS (Cayman Islands), RCCH (Chile), LCRA (Colombia), RCD (Dominican Republic), GRC (Ecuador), CRAS (El Salvador), CRAG (Guatemala), JARA (Jamaica), LMRE (Mexico), MARS (Montserrat), VERONA (Netherlands Antilles), CREN (Nicaragua), LPRA (Panama), RCP (Peru), VRAS (Suriname), TTARS (Trinidad and Tobago), ARRL (USA) and RCV (Venezuela).

**Region 3** — WIA (Australia), BARTS (Brunei), CRSA (China), ARSI (India), JARL (Japan), KARL (Korea), MARTS (Malaysia), NZART (New Zealand), PARS (Pakistan), PNGARS (Papua New Guinea), PARA (Philippines), SARTS (Singapore), RSSL (Sri Lanka), RAST (Thailand) and VARS (Vanuatu).

Some societies have mistakenly been dealing with the Canadian Amateur Radio Federation (CARF) on matters concerning reciprocal operating and licensing arrangements with Canada. The Canadian Radio Relay League (CRRL), the Canadian Division of the ARRL, is the member-society for Canada. This was approved by unanimous vote of the IARU, and CARF has no official standing with the IARU.

#### Taba de Poty Diploma (PS7 Award)

Taba de Poty Diploma (DTP) is an international award available from the Sectional Directory of LABRE of the State of Rio Grande do Norte in Brazil. The award is available to all radio amateurs, except those who reside in the PS7 call area. The object is to work PS7 stations with the minimum requirements as follows: *Brazilian radio amateurs* — 20 different PS7 stations; *All other amateur stations* — 10 different PS7 stations. The requirements for the Brazilians require ad-

additional restrictions which do not apply to stations outside that country.

To apply for this award, send your certified list of confirmed contacts with a fee of 6 IRCs to: Diploma Taba de Poty — PS7 Award, LABRE, P.O. Box 251, ZC 59.000 Natal, RN, BRAZIL.

#### Clubs

The Chiltern DX Club recently elected the following officers for the 1985-86 term. Roger Brown, G3LQP, chairman; Peter Wallis, G3YJI, treasurer; and Brendan McCartney, G4DYO, secretary. Brendan is also editor of *DX News Sheet*, which is published weekly by the Radio Society of Great Britain.

Also elected, in recognition of their sterling service to the club: Bill Hawthorne, G3MCS, president, and Tony Roberts, G3RUR, vice president. Any UK DXer desiring membership information should contact Brendan McCartney, G4DYO, at 123 Reading Road, Finchampstead, Wokingham, Berks RG11 4RD, ENGLAND.

#### Another DXCC country?

There was an item in *The DX Bulletin* concerning counting the U.S. bases in Japan the same way the British bases are now counted for DXCC purposes. Although the maps of Cyprus identify Akrotiri and Dhekelia as sovereign British territory, nothing of the maps of Japan identify anything in regard to U.S. bases. Of course, the only other place in the world — according to *The DX Bulletin* — that has the same status as the British bases on Cyprus is Guantanamo Bay, Cuba.

Also, the military bases in Japan are not governed by the Japanese authorities. In fact, they don't even recognize them as amateur stations, but military stations.

#### Antique QSL Department

This QSL has a photo attached. The late Roy Weisbach, W9UX, made this

TO RADIO **W9PST** QSO No. **27** FM  
UR SIGS REC WRKD ON **9 JUN 1937** AT **12.50** GMT  
RST **579** X-TAL  
ORM **No** ORN **No** QSB **No**

**ORA:**  
H. O. RICHARDS  
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NEW GUINEA  
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VALVES **4**  
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REMARKS **EQ QSO DLX**  
PSE QSL VIA N.I.V.I.R.A. BATAVIA JAVA  
VY 73 ES LUCK TOB 1/3 ORI  
HPE CUAGN



contact with PK6HR back on 09 June 1937. The operator was H.O. Richards of Seroei in Netherlands New Guinea. The card indicates that PK6HR was running

40 watts input on 20 meters. Our thanks to Bob Truhlar, W9LNQ, for submitting this 1937 QSL card.

South Africa

TO RADIO **W9PST** UR SIGS WRKD  
ON **24 1936** GMT. UR QSA **49.14**

**ZU1T**

XMTR  
RCVR - PATTERSON PR-10  
Long may your tubes be bright  
To wrk Dx both day es night

J. J. VAN RAVESTEYN  
PSE TNX QSL OB



Here is another photo-type card. Roy worked ZU1T, of Noorder, Paarl, in South Africa, operated by J.J. Van Ravesteyn. The contact was on 20 meters CW back on 27 February 1936. The operator of ZU1T must have been quite a DXer as he indicates having a certificate for working all continents in 23 hours. This is quite an accomplishment considering the fact that that was almost 50 years ago. The card

has a little ditty: "Long may your tubes be bright — To wrk Dx both day es night".

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#### The Big Ten

The IARU has released the latest fig-

ures concerning Amateur Radio throughout the world. The top 10 are as follows:

	Total operators	Total stations	Licensed members	Percent
Japan	?	574,581	118,501	21 <sup>1</sup>
United States	412,156	415,000	113,097	27
U.S.S.R.	75,500	45,000	11,492 <sup>2</sup>	15
Brazil	56,000	56,000	9,000 <sup>3</sup>	16
United Kingdom	53,000	53,000	27,000	51
Fed. Rep. Germany	51,145	53,680	39,378	77
Italy	29,800	26,250	10,980	37
Spain	26,000	26,000	13,080 <sup>4</sup>	50
Argentina	24,000	35,000	2,162	9
Canada	22,967	22,967	4,633	20

#### Notes:

1) The percentage figures are based on total operators and licensed amateurs who belong to their national society. In the case of Japan, we used total stations as the total operators is unknown.

2) Not shown in the above figures is that the U.S.S.R. has 140,000 members in their society, with a very small amount of that licensed members.

3) 1984 figures.

4) 1983 figures.

The total count worldwide included 1,511,000 total operators, 1,489,000 total stations and 450,000 licensed society members.

Amateur Radio is presently suspended in Angola, Ghana, Mozambique and Burma.

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2 .. 80 40M	85 ft ..	\$ 55 ..

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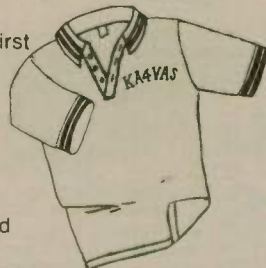
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**QSL Help**

Several readers responded to the section on QSL Help in the August issue of this column. Two of the calls I listed, AH0C and 4X2BYB, arrived the latter part of July. I don't know if the calls printed in my column had an effect or it was pure coincidence. Well, whatever — the cards arrived.

Bob Winn, W5KNE, Editor of QRZ DX, responded to my plea for help with TO7GAS. I had found a new address for this one, but my August column had already gone to press. Refer to the QSL Routes in the September issue for help on TO7GAS. Ross Guldenbrein, WA6PES, also responded on this one.

Charlie Gagnon, W2LQQ, is looking for a good route for 9K2EX, who he worked on CW back in May 1979. Cards via SM0BYD have brought no replies. He is also looking for a route for VK6LL.

Stan Stansfield, AG4S, is looking for help in obtaining cards from TT8AD (1978) and ET0UN (1983). Stan suspects the latter may be a Slim. He also worked HF0POL (one of the calls I had listed) in 1978. The QSL manager at the time was SP2BBD and the operator was Andy Zielinsk, SP2BHZ. His card arrived via the bureau a few weeks after the contact. My best approach would be to reapply for another card.

Anyone still needing a QSL card from the following deactivated calls should send your requests with an SASE to Bill, K4CLA: H7Z, TG9XGV, YN1CW, YN1Z and 4W1CW.

Mike Mahan, KG6AQ, is looking for help in obtaining QSL cards from the following stations: ED9IAL (1983), HA9RE (1983), SP9AI (1983), VP8QP (1983) and Y23UJ (1983). A check with the "W6GO/K6HHD List" lists EA9JV as the route for ED9IAL. As for the others, I suggest you send the cards via the bureaus, (or if you are an ARRL member, the Outgoing QSL Bureau in Newington), as they are the garden variety DX. Mike didn't say if he had QSLed to those stations or not. If so, sometimes a second request helps. Then again, two years is not that long ago in some cases.

Incidentally, the "W6GO/K6HHD List" is a good source of QSL routes. Sing copies are \$2 (U.S.), \$2.50 (Canada and Mexico) and \$3 (all others). Subscription rates are \$20, \$25 and \$30, respectively. Further information is available from Jay and Jan O'Brien, P.O. Box 700, Rio Linda, CA 95673-0700.

**QSL routes**

A35PP	-ZL4QS	HUI1DX	-WA0JYJ
A35QS	-ZL4QS	HUI1FI	-WA0JYJ
A35SA	-JM1MGP	10SNY/ZB2	-10SNY
A71AU	-DJ9ZB	IJ7ET	-17OYT
A92EM	-G3XHS	IJ7ONU	-17OYT
AH2U	-K9XR	IK2CKR/8Q7	-12CRQ
AH9AC	-W1ISD	IPIVXA	-11DPU
AP2AU	-JA3CMD	IPIXOI	-11XOI
AP2MQ	-JA3CMD	IQ0RAI	-10KBL
BT1HHL	-JR1HHL	IQ5LDV	-15VIT
BT4RJU	-JA1RJU	IS0CPU/1M0	-1S0WON
C30BAN	-F6BII	IX10NU	-11NHK
C30BBA	-F6ARI	J28EI	-FC1JEN
C30BBQ	-OH2BAZ	J73LC	-KF4IL
C30BBS	-DK9FE	JR8BUU/5N0	-JA8FCG
C30BBT	-DL8FZB	JW8KT	-LA8KT
C30BBU	-DG7FCA	JY4MB	-DJ3HJ
C30BBV	-DK7WD	JY8AD	-A71AD
C30BBW	-DG1ZX	JY9CL	-G3MUL
C31AA	-10PO	JY9MG	-JR3XMG
CN8CC	-F6FNU	JY9RL	-WA6POZ
CN8EA	-N4DRC	JY9WR	-G4ATS
CO2PY	-XE1XF	K7VAY/5V5	-DA2AA
D68AM	-WB2OHD	K8CRM/KH3	-K8CRM
DUI1MEL	-KC9PX	KA4JRY/TT8	-KA4JRY
EE9UIT	-EA9IB	KH6JEB/KH7	-KH6JEB
EJ2B	-ON5KL	KH0AC	-K7ZA
EL2ER	-VE6BOB	KS0C/KH2	-KS0C
FM4DN	-F6FNU	KX6PO	-K6EDV
FM5DJ	-W5JLU	LA2OZ/5B4	-LA2OZ
FM5WD	-W3HNK		(See Note 1)
FO8ASJ	-N5DD	LA7MEA/5B4	-LA7MEA
FV1PAX	-F8BO		(See Note 1)
FV6PAX	-F8BO	LA7OY/5B4	-LA7OY
HG100GVM	-HA5KFZ		(See Note 1)
H13RST/KP5	-W0JRN	LA8QX/5B4	-LA8QX
H13TGS	-N2BJX		(See Note 1)
HL9AA	-NJ7Q	LG5LG	-LA2ZN
HS0IYY	-JA8ATG	LZ5A	-LZ1KDP

LZ9MAY	-LZ1KDP	VS6DQ	-HB9AQZ
N5CJB/5N1	-K4ZKG	VU2ISV	-N4JR
N6HR/KX6	-N6HR	W6JKV/KP5	-W6JKV
N7DF/TT8	-K0HGW	W6DMJ/KH3	-WB6UBR
N7ET/DU2	-N7ET	WA0VNY/	
NH6D/KH3	-NH6D	HR1	-W0AKF
NJ2D/VP9	-K2JF	WH60/KH4	-KH6VR
OX3GH	-WA2TTI	Y40BER	-Y39XO
P29KJ	-VK9NL	YB0ARA	-WA6AHF
P29LB	-KC2ZH	YN4RC	-WB8SSR
PA3BZV/		YS9JY	-NF5J
HB0	-PA3BZV	YZ3WB	-YU6ARO
PZ5ES	-N8DE	YZ7MIF	-YU7KV
R2PZ	-UPIBZZ	Z21AO	-VE3HK
	(See Note 2)	ZC4MR	-G4SDJ
SJ9WL	-SM4TF	ZC4WW	-G3ZNF
SU1ER	-W4ZWE	ZD8AL	-W2AL
	(See Note 3)	ZD9CS	-KA1DE
SV0BV/A	-G5VS	ZF2AY	-K9LA
TF5BW	-W3HNK	ZF2IB/4X	-WA4WTG
TF5EP	-W3HNK	ZK1CY	-W6KNH
TK5EP	-F6EYS	ZK1WL	-ZL3AFH
TRIG	-TRAJLD	ZK1XE	-WB6GFJ
TU2JD	-AK3F	ZK1XK	-WB3CVL
TU4BN	-F6ATQ	ZK1XN	-W3VH
TU4BR	-KN4F	ZL1AO	-ZL1AMO
TV6JUN	-F6EYM	ZV2ACZ	-PT2ADV
TW6IPA	-F6IPA	ZV2ADV	-PT2ADV
TY0ABD	-DJ6QT	ZV2BW	-PT2ADV
TZ6FE	-DL4BC	3D6AN	-WK4Y
TZ6FS	-DL4BC	3X0HAB	-DL8CM
TZ6LPY	-10LPY	4M5D	-N4ATS
UP7A	-UPIBZZ	4U1UN	-W2MZV
	(See Note 2)	4Z4DX	-WA4WTG
V2ACW	-WB4OSN	5A1AB	-G4UZO
V2AK	-WA4WTG	5B4LP	-KA3FIB
V3TV	-G3ATK	5B4NF	-1K8DYD
V44KAC	-WB2LCH	5N8BAV	-12ZGC
VA1NG	-VE1NG	5N9GM	-18XIU
VE3JKC/2	-VE3JDO	5T5MS	-HB9AAA
VE3KFE/4U	-VE3PET	5T5SL	-DL8DF
VE3SCJ	-VE3MAX	5Z4ED	-JH6FMU
VE8MC	-VE4TZ	5Z4MX	-SM3CXS
VK9ZB	-VK6YL	8P6AH	-WA4WTG
VK0DJ	-VK3DYL	8Q7MA	-OH2BH
VK0GC	-P29JS	9J2BO	-W6ORD
VK0ML	-VK5ABB	9J2JN	-KB2ZP
VP8BDC	-G4NKO	9N1MM	-N7EB
VP8PU	-WA4QS	9Q5HT	-ON5HT
VQ9YR	-KA4SPA	9X5WP	-WB6VKD
VR6JR	-G3OKQ		

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F08BK	-P.O. Box 251, Uturoa, Raiatea, FRENCH POLYNESIA
F08MN	-P.O. Box 319, Uturoa, Raiatea, FRENCH POLYNESIA
FP4CJ	-P.O. Box 37, ST. PIERRE ET MIQUELON
FR4DN	-Philip Mondon, CD16 Avirons, 97425 Reunion Island, FRANCE
FW8AF	-P.O. Box 62, Matautu, WALLIS ISLAND Nauru (See Note 4)
GU4BDV	-P.O. Box 100, Guernsey, UNITED KINGDOM
H44MA	-P.O. Box 47, Honiara, SOLOMON ISLANDS
HL4HE	-P.O. Box 41, Jeonju 520, KOREA
HP1AZO	-P.O. Box 6213, Panama, REPUBLIC OF PANAMA
HS0A	-RAST, P.O. Box 2008, Bangkok 10501, THAILAND
JD1YAK	-P.O. Box 2, Ogasawara, JAPAN
KB6DAW/	
NH9	-Edward Campbell, 300A Rendova, APO San Francisco, CA 96334
KC6AF	-P.O. Box 301, Khula, EASTERN CAROLINE ISLANDS
KH6F	-P.O. Box 675, Koloa, HI 96756
KX6BE	-P.O. Box 8486, APO San Francisco, CA 96555-8008
NY6M/AH9	-Edward Campbell, 300A Rendova, APO San Francisco, CA 96334
OD5PA	-P.O. Box 166373, Beirut, LEBANON
OD5YU	-P.O. Box 8, Tripoli, LEBANON
OX5AC	-Jack Lennox, WB4GCP, 736 Cedar Creek Way, Woodstock, GA 30188
P29AF	-P.O. Box 2654, Mt. Hagen, PAPUA NEW GUINEA
P29JS	-P.O. Box 515, Konedobu, PAPUA NEW GUINEA
PZ2PDJ	-P.O. Box 807, Paramaribo, SURINAME
SV0AH	-P.O. Box 66, Rhodes, GREECE
SV0DH	-Bill Cox, Box 282, CR-85, 100, Rhodes, GREECE
SV0DT	-P.O. Box 274, APO New York, NY 02991
T32AN	-P.O. Box 667, Aiea, HI 96761
T40PAZ	-P.O. Box 1, Havana, CUBA
T42AL	-P.O. Box 10, Havana 14, CUBA
T42CL	-P.O. Box 1, Havana, CUBA
T42OM	-P.O. Box 40, Havana, CUBA
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V2AU	-P.O. Box 549, ANTIGUA
VE8YQ	-P. MacDougal, 570A Ferry Road, Winnipeg, MB R3H 0T7, CANADA
VR6YL	-Betty Christian, P.O. Box 1, PITCAIRN ISLAND
XE3AAF	-P.O. Box 329, Merida, MEXICO
YJ0ASN	-Sean Nixon, 131 Motuhara Road, Plimmerton, NEW ZEALAND
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ZB2GQ	-P.O. Box 281, GIBRALTAR
ZD7HH	-Jamestown Postoffice, ST. HELENA ISLAND
ZF1JC	-P.O. Box 1108, Grand Cayman, CAYMAN ISLANDS
3H0C	-P.O. Box 148, Chengdu, PEOPLE'S REPUBLIC OF CHINA
5B4MD	-P.O. Box 609, Nicosia, CYPRUS
5B4OA	-P.O. Box 9087, Nicosia, CYPRUS
5T5RG	-Richard Gannon, P.O. Box 322, Nouadhibou, MAURITANIA

5Z4DJ	-Tony Oakley, P.O. Box 991, Mombasa, KENYA
6W1MS	-P.O. Box 950, Dakar, SENEGAL
6W2LR	-P.O. Box 26, Bignona, SENEGAL
6W6NJ	-P.O. Box 2, Gandiyae, SENEGAL
7X5AB	-P.O. Box 137, Biskra, ALGERIA
8R1RPN	-P.O. Box 12282, Georgetown, GUYANA
9J2BR	-William Ramey, P.O. Box 31617, Lusaka, ZAMBIA
9J2CC	-Carlos Comotti, Private Bag 3, Chirundu, ZAMBIA
9J2JH	-John Hoehn, Private Bag 5, Chipata, ZAMBIA
9J2NC	-Norman Chapman, P.O. Box 30214, Lusaka, ZAMBIA
9K2KR	-P.O. Box 39419, Kuwait, KUWAIT

9K2MJ	-P.O. Box 2507, Salmiya, KUWAIT
9K2YA	-P.O. Box 13210, Kaifan, KUWAIT
9U5JW	-Jean Masson, P.O. Box 2426, Bujumbura, BURUNDI

**Notes**  
 1. Cards for these stations may also be sent via the bureau.  
 2. Unless otherwise directed, all cards for Soviet stations must be sent via P.O. Box 88, Moscow, U.S.S.R.  
 3. Only cards for 80 and 40-meter contacts with SU1ER are handled by W4ZWE. Contacts made on other bands should go direct to SU1ER. Address for SU1ER is given elsewhere in this column.  
 4. European stations may send their cards for FW8AF via FD61JV.

Our thanks to the large variety of contributors this month that include W1BFA, W1LQQ, K4CLA, AG4S, W5KNE, KA6A, KG6AQ, KB6DAW/KH2, WA6PES, W9LNQ, KC9TD, N0DJJ, K0EDA, WA0JYJ, The Carolina DX Association (W4WMQ), The Kansas City DX Club (AB0X), Southern California DX Club (W6ABW), Northern California DX Club (WA6O), Western Washington DX Club (K7ZR), International Amateur Radio Union, *The DX Bulletin*

(K1TN), *The Long Island DX Bulletin* (W2IYX), *Long Skip* (VE3XN), *QRZ DX* (W5KNE), and *The W6GO/K6HHD List*.  
 Now that the summer is almost over, it's time to plan for the DX activities that come with the fall months. Check your antennas and don't get caught short when this activity shows. I keep telling myself the same thing year after year, and still come up short. Oh, well. 73 es GL DX de John, N6JM.

**Visitors from afar**

**B.G. Day, W1CTF**  
 It was on 9 November 1980 that Doris Warren, N5CFP, of Garland, Texas first contacted Siege P29NSF (now VK4VVF), who lived with her husband, Gerry, on a copra plantation near Rabul, New Britain Island, Papua New Guinea.

Australia, where their two children had attended school. Subsequently, they decided to embark on a world tour, flying first to Hong Kong, thence to Europe to spend time in Bulgaria, Czechoslovakia and considerable time in and around Munich, FRG, during the interval from April to September 1984. They came to New York for the first time, thence to visit us for a week in Suffield, Connecticut, then on to Garland, Texas for another good in-person visit with Doris N5CFP and her husband, Cam K5BEH.

Since I had formed a friendship with Doris in my quest for YL contacts sufficient to qualify me for a YLCC Award, it was not long before this Old Boy got into the act of contacting Siege on 10 meters for a number of pleasant contacts, along with N5CFP and others, since Siegi — in PNG — was in great demand as a "new one."

Siegi and Gerry returned to the Brisbane area where they are now promoting a popular tourist enterprise on Daydream Island, inside the Great Barrier Reef.

Siegi's power was low and her license was limited, at least on some bands, but many QSOs were surprisingly good — probably due to a good antenna and good propagation. I must say at this point that Siegi, Gerry and Doris are all originally of West Germany, so have a common homeland and language bond.

They are not yet on the air in the new location, but we hope to hear them again soon with Siege as VK4VVF, the operator, and Gerry, the engineer, who never talks, hi!

After 22 years on the plantation, a sale of it was arranged and Siegi and Gerry returned to their property near Brisbane,

It is not often, perhaps, that we hams get to meet our DX friends in person. The people involved in this little story, however, derived much pleasure from the pleasant contacts described here.

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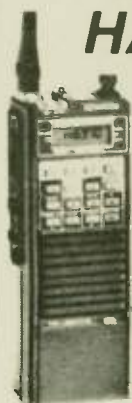


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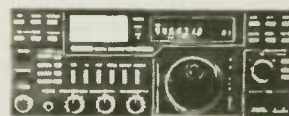


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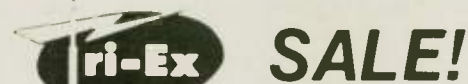


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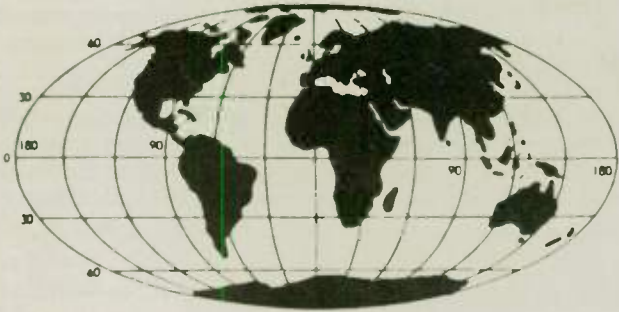
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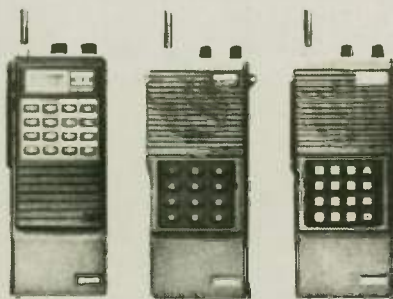
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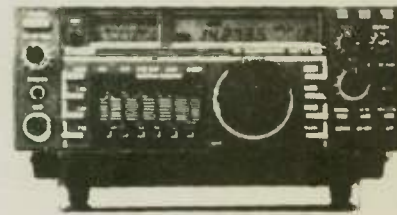
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ment. There is also a listing of those who have qualified and will be on the next shuttle flight which carries GAS experiments. The next GAS flight opportunity is scheduled for STS 61-B to be launched on 27 November 1985 aboard the shuttle orbiter *Atlantis*.

Several attempts were made during the first week in August to contact W0ORE by the JPL ARC. The signal from Tony was loud and clear, a "5 x 5". "Calling W6VIO. This is W0ORE, Shuttle Chal-

list in the operations mission development group of the astronaut office. He has logged more than 2,000 hours flying time.

**JOHN-DAVID F. BARTOE, 41, Ph.D.** — a payload specialist and astrophysics expert. He received a B.S. degree in physics from Lehigh University, and an M.S. degree and Doctorate in physics from Georgetown University.

Dr. Bartoe is currently an astrophysicist at the Naval Research Laboratory in

Washington, D.C., where he has been involved with solar research for almost 20 years. He has carried out solar ultraviolet studies with sounding rockets, satellites and instruments flown on Apollo and Skylab missions.

Dr. Bartoe is a co-investigator on a Solar Ultraviolet High Resolution Telescope and Spectrograph (HRTS) experiment and the Solar Ultraviolet Spectral Irradiance Monitor (SUSIM) experiment.



Explorer Scout Rob Miller looks at the array of SSTV screens being used in the JPL ARC attempted contact with W0ORE aboard shuttle 51-F. (K6PGX photo)

#### Computer bulletin boards — a source of AMSAT/OSCAR and other amateur space news

If you are the possessor of a modem for your computer, you can keep up to date with happenings and other news about the Amateur Radio space activity by dialing up several computer bulletin boards which provide free access and display items of interest to amateurs.

For example, the WESTLINK BULLETIN BOARD kept giving updates on the operations of the space shuttle astronaut/amateurs Dr. Anthony W. England, W0ORE, and Dr. John-David F. Bartoe, W4NYZ, which those with computer-modems could receive by calling (805) 251-5558. When the "entry prompt" occurs, you respond with "WLR RET" and then follow the instructions and prompts. The WESTLINK BULLETIN BOARD SERVICE is an ongoing activity and is available daily 24 hours. There is a note of warning not to send either quotation marks (") or the letters "R" or "S" unless you want to bomb out.

The NASA GASCAN NET can be reached by dialing (301) 344-9156. On this net there are many reports of NASA space activities. You can learn who has applied for a position on an upcoming shuttle for a Getaway Special Experiment was heard several times.

Although Jay Holladay, W6EJJ, tried

several times to return the call to W0ORE, he apparently did not get through. However, on 01 August, we recorded an SSTV image from *Challenger*, showing two of the astronauts in the bay of the Spacelab. The signal was quite noisy. This is believed to be due to the fact that the shuttle may have been pointing away from us at the time.

Here is some biographical data about the two amateur operator astronauts:

**ANTHONY W. ENGLAND, 43, Ph.D.** (W0ORE) — a mission specialist who was selected as a scientist-astronaut in 1967. He served as a support crew member for the Apollo 13 and 16 flights.

Dr. England received B.S. and M.S. degrees in geology and physics from the Massachusetts Institute of Technology. His Doctorate is in Planetary Sciences from MIT. He has continued his geophysics research all over the United States and in Antarctica.

After serving as a research geophysicist for the U.S. Geophysical Survey for seven years, Tony returned to the Johnson Space Center as a senior mission spe-

#### OSCAR-10 users meet

The second symposium for OSCAR-10 users in Northern California will be held at the Villa Hotel, San Mateo, California Sunday, 20 October 1985 at 10:00 a.m.

The program will include speakers Roy Browning, W6SP, president of AMSAT; Mike Staal, K6MYC, who will speak on satellite antennas; and Ken Chong, WB6MLC, speaking on packet radio via satellite. AMSAT North Central Califor-

nia Coordinator Ross Forbes, WB6GFJ, will show slide pictures of OSCAR-10 stations. There will be a question-and-answer session and an opportunity for "show and tell."

For luncheon at the hotel, make advance reservation with meeting Chairman Gary Nakayama, KH6JRB, 1929 Bayview Ave., Belmont, CA 94002. Telephone (415) 572-0660 Ext. 5180 or (home) (415) 591-4896. Luncheon without reservation on available basis only. □

# AMSAT

Radio Amateur Satellite Corp.  
P.O. Box 27, Washington, DC 20044  
Telephone 301-589-6062

Do you know that *amateurs* have launched over a dozen satellites into earth orbit? Some of these spacecraft have achieved orbits over 20,000 miles high! Signals from these satellites can be received using relatively small antennas and a preamplifier and/or converter connected to your present shortwave receiver. If you are a licensed Radio Amateur with at least a Technician Class license, you can communicate through most of these satellites to obtain reliable international ssb, cw, RTTY or SSTV communications.\* Special bulletins and other informational messages are available on satellite beacons. Informal conferences regarding space activities are conducted on these satellites and on various shortwave frequencies.

Here is your opportunity to take an active part in the space frontier. Whether your interest is in building future spacecraft, space communications, computer applications, space studies, satellite tracking, or just keeping informed regarding the exciting developments of the space age, here is your chance to get involved in the new frontier. By joining the AMSAT team you will receive regular news on the various amateur space projects, the latest home station equipment for receiving or transmitting via satellites, membership discounts on space shuttle/satellite tracking software for your home computer, plus much more. Further, your membership helps support the Amateur Space Program and ensures its continued success.

- Please send additional free information on the Amateur Space Program and AMSAT membership. Enclosed is a business-sized, self-addressed, stamped envelope.
- Please send free information on home computer programs and other software for tracking the space shuttle, satellites, and other objects in earth orbit. Enclosed is a business-sized, self-addressed, stamped envelope.
- Yes, I want to become a member of AMSAT and receive *ORBIT* Magazine! Enclosed are my annual dues of \$24 (\$26 overseas - surface. Special rates are available if you desire air mail delivery service).
  - New Member
  - Renewal
- Please send me a sample issue of *ORBIT* Magazine. Enclosed is my personal check, money order, or appropriate credit card information, for \$2.
- I am very interested in the Amateur Space Program and the efforts of AMSAT. Enclosed is my tax-deductible donation in support of these efforts. Please send me the gift indicated.
  - AMSAT Call Sign and Name Badge - \$6 minimum donation, first name only, personalized as follows: Call \_\_\_\_\_ Name \_\_\_\_\_
  - OSCAR Satellite Teeshirt - \$7.50 minimum donation. Please specify adult small, medium, large, or extra large.
  - Satellite Sponsor Lapel Pin - \$10 minimum donation.
  - OSCAR Solid Brass Belt Buckle - \$13 minimum donation.
  - Fly my name on the next OSCAR satellite and send me the special personalized certificate attesting to my support of the Amateur Space Program. \$15 minimum donation please.

Enclosed please find my check.     Please charge my VISA/MC account.

Name \_\_\_\_\_ Call \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

AMSAT Membership No. \_\_\_\_\_ Special interest(s): \_\_\_\_\_

For VISA/MC: Card No. \_\_\_\_\_ Exp. date \_\_\_\_\_

Bank No. (MC only) \_\_\_\_\_ Signature \_\_\_\_\_

\*Although an Amateur Radio license is required for two-way communications via OSCAR satellites, you do not have to hold such a license to be a full voting member of the AMSAT team.

### SATELLITE TRACKING PROGRAMS

Fast, colorful, easy to use and update. Tracks OSCAR, RS, UoSAT, NOAA + STS. Operates in real time showing bearing and elevation, menu driven. K7NH design C-64, VIC-20 & T/S 1000-16K — \$19.95/Disc \$25.95. Full specs SASE/orders check, M/C, VISA.

## SPECTRUM WEST

5717 NE 56th  
Seattle, WA 98105  
(206) 523-6167

\$15 DTMF DECODER \$15

The LJM2RK decoder kit converts your receiver into a special receiver or control. When a user-selected time-tone combination is received, the output provides a relay control for activating speakers or other devices.

INPUT: Audio from transceiver, scanner, etc.  
OUTPUT: SPST (N.O.) relay.

FEATURES: Single or dual tones adjustable over the 16 digit Touch Tone range • Adjustable response time • Relay output • Manual or auto reset • Single tone ON latching with different single tone reset OFF • Operates on 12VDC • Interfacing of multiple boards for multi-digit sequential activation and reset.

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LJM2RK decoder kit includes all component, relay, and P.C. Board. . . \$15 plus \$1.50 shipping.

LJM2RC enclosure kit includes molded case, speaker, input cable. . . \$5 plus \$1.50 shipping.

For information and to order write:  
**THE METHENY CORPORATION**  
204 Sunrise Drive, Madison, IN 47250





## A worthwhile vacation plan

### Ralph Thomas AFF6P/NG6K

Bill Feder, Sr., N0NVE, President of the Pueblo Historical Aircraft Society, and soon to be named curator of the Fred E. Weisbrod Transportation Museum, Pueblo, Colorado, advises that the Pueblo

Historical Aircraft Society is requesting volunteer help from individuals and organizations in cleaning, restoring, and repairing a "squadron" of 22 World War II and post-World War II aircraft presently on static display at Pueblo Municipal Airport.

The Pueblo Historical Aircraft Society, a non-profit organization, is especially interested in obtaining command radio sets (cannibalized or in working condition) for re-installation in these aircraft. The society is also interested in receiving the radio manuals for the command sets, as well as any manuals pertaining to the aircraft itself and the aircraft systems, flight instruments, flight clothing, log books, etc. Anything donated to this restoration work or to the museum is income tax deductible.

There is presently a plan being developed to allow visitors and vacationers, who will come to Pueblo to help in the restoration efforts, to claim income tax deductions for all or a large part of their vacation expenses. Until that plan is finalized by the Pueblo City Attorney, ex-

penses incurred by volunteers who come to work on the aircraft may be listed as donations to the City of Pueblo, and as such, are tax deductible.

For those Amateur Radio operators who have a 2-meter rig, two repeaters on 19/79 and 28/88 are on line. Those on the HF bands may check into the Colorado High Noon Net at 12 noon daily on 7240 kHz. You do not have to be a member of the Society to assist in the restoration, but membership is open at the present time. The modest fee involved is also tax deductible.

USAF MARS Communicator

## Region 5's most senior MARS citizen

Vivian A. Carrougher, AFA5CA/W7YC, of Tacoma, Washington, now 90 years old, has been active in electronic communications for over 70 years. His amateur experience dates back to about 1905.

His first transmitter was made from an

old 1904 Ford spark coil. Six years later, he went to sea as a radio operator and sailed around the world many times. Although he does not recall some of his early call signs, he indicated when amateur operators first got started, they just used any calls they wished. It was some years later when the government started issuing call signs.

Mr. Carrougher heard the original SOS from the *Titanic* and called the local New Jersey newspaper who proceeded to tell him he was crazy, only to find out an hour later that it was factual. They called back to apologize. His "amateur first grade license," dated December 13, 1912 still hangs on the wall of his "shack."

Mr. Carrougher finished his college work at the Brooklyn Polytechnical Institute, graduating with a BS degree in Mechanical Engineering. He was later a captain in the Army Reserve and is a life member of the American Legion.

We are very proud to have Mr. Carrougher in our program and a part of Region Five. We salute you, Sir. USAF MARS Communicator.

# 'One-ringer' on the French Riviera

## Melville Shavelson

One glorious morning at St. Jean-Cap-Ferrat on the French Riviera, I was lying in bed at the Hotel Le Panoramic, looking out across a balcony at the azure skies and blue waters of the Mediterranean, speaking to a friend of mine in Beverly Hills. But I was not using a telephone. That, for a member in good standing of the Bel Air ARC would have been sacrilege, akin to treading on the flag or kissing your sister on the Playboy Channel.

No, I was speaking into a tiny handheld radio transmitter, whose signal was being picked up by a former member of the French underground in nearby Nice, and re-transmitted from the rotary antenna on the roof of his apartment building to an even larger rotary antenna at the home of an Academy Award-winning writer friend of mine who lives in West Los Angeles. However, my friend's antenna is so large that when he turns it east it hangs over into Beverly Hills, thus giving him the right to claim the more exclusive address.

I had nothing of any importance to say to my distinguished writing friend, but the fact that he could hear me say it gave the whole event its *raison d'être*. And the fact that my wife, in bed beside me trying desperately to sleep, could also hear it, merely affirmed her belief that all members of the Bel Air Radio Club are insane.

While my friend and I were speaking, my doctor broke in on our radio frequency to say helio from California, as did another member of the club who is a film director and writer like me. We were joined by a composer, and a former co-owner of the Los Angeles Angels. It was 10:00 p.m. in Los Angeles, and they didn't have anything else to do. They didn't have anything to say, either, but it was the way they said it.

The total cost of the radio equipment for this communications miracle would have paid Reggie Jackson's salary. For at least a week. A transatlantic phone conversation of the same duration would have cost \$7.95, but it would not have been accompanied by the squeals and static crashes that make Amateur Radio a masochist's heaven. Had we used the telephone, we could have heard clearly everything we had to say to each other, which — since it was nothing at all — might have completely destroyed the magic.

My wife must be right.

The Bel Air Radio Club is an exclusive organization of otherwise normal individuals, most of whom are connected with show business (that's normal?), who have banded together for the purpose of . . . well, there must be a purpose.

Actually, in times of stress, they have used their state-of-the-art (and pocket-book) equipment for emergency service during Los Angeles floods and disasters like running out of gas on the freeway; and our doctor once saved the life of a child in South America by prescribing for him via Amateur Radio and then bringing the boy to Beverly Hills for a much-needed operation.

But the real purpose of the organization is to maintain a repeater station in the Hollywood Hills so they can talk to each other from their cars and try to find out what their real purpose is.

Also from their cars, they can dial any phone in the Los Angeles area without installing cellular phone equipment. They usually telephone each other. They used to telephone their wives, but several wives, in outright frustration and rebellion at being called a dozen times a day by their husbands to find out if they could hear them, studied diligently and passed the Amateur Radio examination themselves so they could radio from their cars.

A few of the group maintain a cache of radio equipment in the quaint little French town of St. Jean-Cap-Ferrat previously mentioned. Every summer when they arrive, after leaving one member at home in California so they will have someone to talk to, the equipment is hauled out of hiding by Monsieur Freddie, the aforementioned French underground fighter who is a radio amateur himself.

M. Freddie manufactures antique French furniture, or did until we persuaded him it was interfering with his true mission in life, which is furthering Franco-American amity by crawling on roofs, erecting antennas, clinging to chimneys, hooking up transmitters and making sure his American friends know which switches to turn without electrocuting themselves. No one knows why he does this. He certainly gets no money for it and is often pressed into transatlantic service as a travel agency.

This is much more difficult than it sounds, since his American friends will not call him on the telephone. Not directly. Instead, they awaken him at 7:00 a.m. with a "one-ringer." That is, his tele-

phone is dialed from California and after it rings once, the caller immediately hangs up before Freddie can answer it.

This is similar to the clandestine operations that he was involved in when he was with the underground during World War II. When his phone rings just once, Freddie's wartime reflexes respond immediately and he automatically rolls out of bed, turns on his radio equipment, tunes in the 14 MHz amateur band and battles all kinds of atmospheric noises and interference to get the vital information from his friends across the Atlantic that it is raining in Beverly Hills.

Communications are further complicated by M. Freddie's next-door neighbor in the apartment house, a lady who watches French television day and night. When M. Freddie turns on his powerful transmitter, it causes the lady's TV set to do the cancan. Therefore, since she is large and fairly vociferous and is given to pounding on the wall, it is necessary to call M. Freddie when she is asleep. Fortunately, she sleeps soundly from 10:30 p.m. to 8:30 a.m. Otherwise, all of southern France might be isolated from contact with the outside world.

In the context of all the foregoing, it seems only natural that M. Freddie should be married to a former Turkish princess who has 130 aunts, her grandfather having maintained a rather generous harem. Fortunately, Grandpa was not interested in Amateur Radio, so he had time for his other hobby.

One of the princess's aunts visited them not long ago, from some Middle Eastern country that prefers to remain nameless, bringing with her one of her personal slaves. M. Freddie was sorely tempted to purchase the slave to perform his duties for his American friends, but it proved impossible. There was no way to explain in Arabic what a one-ringer was.

Also a short time ago, the city authorities in Nice razed three blocks of buildings in the center of the city in order to erect a new city hall. However, when they finished tearing down the buildings, the area looked too good to waste it on housing for politicians. So, wisely, the city fathers decided not to build anything, but to fill the area with huge rows of spectacular fountains.

They made such a lovely, sparkling display in the heart of the city, they decided to have a formal dedication at which the

mayor of Nice was to speak. When the mayor climbed the platform to deliver his oration, he happened to look up, and there, on top of one of the nearby apartment buildings, he saw M. Freddie's beam antenna.

*Merde!*

Let me explain. Beauty is in the eye of the beholder. To M. Freddie, his huge antenna was the most beautiful thing he had ever seen this side of a Renoir nude. It was about 40 or 50 lovely feet of battered aluminum tubing, with other pieces of ancient aluminum 35 feet long crisscrossing it. All this was atop a 20-foot metal tower supported by guy wires, constituting a beam antenna that could be rotated at will by a groaning electric motor to any point of the compass. The tower also supported nine or 10 other antennas made of wire, antennas whose purpose M. Freddie has long since forgotten, but they, too, are beautiful.

Not to Monsieur le Mayor.

When the gendarmes knocked on M. Freddie's door and ordered the antenna murdered, he asked them if the mayor happened to know who he was. The gendarmes replied it didn't make a damn bit of difference who Freddie was; get that terrible eyesore off the roof *toute de suite*, or however you say it in French!

M. Freddie went back into his apartment and secured two bottles of his finest Scotch whisky. Then he paid a visit to the mayor in the old city hall.

M. Freddie still limps from his war wounds. He wears in his lapel the little ribbons representing some of the republic's highest military honors.

And M. Freddie's father had given the mayor his first job.

I do not know if M. Freddie and the mayor finished both bottles of whisky at one sitting, but I do know an order went out to the gendarmerie that Mr. Freddie's antenna farm on top of his apartment building was not to be touched by anyone, for the duration of M. Freddie's life, which the mayor sincerely hoped would be a long and pleasant one.

The antennas are indeed beautiful.

And so M. Freddie can talk to his friends in the Bel Air Radio Club whenever he wants to. Except between 8:30 a.m. and 10:30 p.m., of course.

*Vive la France!*

Pardon me, I just got a one-ringer. It must be raining in Nice.

—Los Angeles Times, CA





Esther Given, W6BDE

The Quarter Century Wireless Association is proud to introduce its staff of officers and directors, whose term of service began 01 September 1985 and will go through August 1987.

President Leland Smith, W5KL, a resident of Jasper, Arkansas, has been continuously licensed since 1930, holding Extra Class since 1952. Enlisting as a private in the Marine Corps, he served in WWII and Korea, retiring from the USMC as a brigadier general. Active on all HF and VHF bands, he is a devoted CW man who holds a 40 wpm code proficiency rating. He has served QCWA two years as a director and four years as vice president.

Vice President, Ethel Smith, K4LMB (not related to the president), resides in McLean, Virginia. Licensed since 1936, she has been actively involved in Amateur Radio's many facets and has received numerous honors and awards including Roanoke Division's Service Award and the 1984 Dayton Hamvention's Special Achievement Award. Ethel has devoted many years to QCWA, four as director and three as Executive Secretary/General Manager. She is active in three QCWA chapters: Vic Clark Ch. 91, Washington D.C. Ch. 23, and Quarter Century Wireless Women, Ch. 120.

Secretary, Jim Walsh, W7LVN, lives in Eugene, Oregon, where he operates an insurance business. First licensed in 1946, he has been a major mover in Amateur Radio operational activities in the Northwest, including teaching, organizing repeater groups, clubs and conventions. Jim was appointed to fill the secretarial term of the late Max Arnold, W4WHN, in 1983. This is his first elected term to this office.

Treasurer, Wes Randles, W4COW, has been licensed since 1933, receiving that original call in Florida. Retired after 37 years as a field engineer for Raytheon, Wes spends six summer months in New Hampshire, going south to winter in Tampa. He helped organize Yankee Chapter 112 in New England as well as several chapters in his home state. He served as QCWA Activities Manager prior to becoming treasurer in early 1982.

The five directors elected to fill two-year terms are:

Leo Meyerson, W0GFQ, of Council Bluffs, Iowa, a director since 1977 whose efforts have made the QCWA Memorial Scholarship Fund a tremendously successful undertaking.

Gerhard Jacoby, DL3ME, Andechs,

## Visit Your Local RADIO CLUB.

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

### ALABAMA

Birmingham Amateur Radio Club, Inc. (BARC)  
Meets at the American Red Cross Building  
2225 3rd Ave. North in downtown Birmingham, Alabama  
1st and 3rd Thursdays/monthly at 7:30 p.m.  
For info call David Black, KB4KCH, (205) 933-1313

Telephone Pioneer Amateur Radio Club of Alabama (TPARCA) 1st Thurs/monthly — 11:30 a.m., Rm N102, SCB Data Ctr 1st Fri/monthly — 11:30 a.m., Caf Pvt Rm, SCB HQ Bldg WD4BXA/R 147.83/28 Coco Cmptr, Net Mon/wkly 8 p.m. K4FUM/R 449.3/444.3 — Info. N4DLE 205/663-2171, Bhm, AL

West Germany, enters his second term as a director. He serves as QCWA's International Liaison Officer.

Arthur P. Kay, Jr., W5APX, Port Arthur, Texas, appointed to fill an unexpired term earlier this year and now a reelected incumbent.

Harry S. Gartsman, W6ATC, Beverly Hills, California, brings previous experience as a board member, having served QCWA two terms as vice president and two as president.

J. Lawrence Evans, W2BBK, Englewood, New Jersey, is a practicing neurologist and psychiatrist whose interest in Amateur Radio began in 1928.

The other five members of QCWA's Board of Directors are Lew McCoy, W1ICP; Esther Given, W6BDE; Wade Holland, W4AZT; Hugh Winter, W5HD; and John Kanode, N4MM, whose two-year terms will end in 1986.

Virginia Chapter #155, received its charter on 03 June 1985 and will serve the area around Charlottesville. Officers include President Philip Lawrence, W4DGN, and Secretary Edwin Bernet, WA4UPI. It is always a pleasure to welcome a new QCWA chapter and to congratulate those whose leadership and diligence make a new chapter possible.

NorCal Chapter #11 honored QCWA president-elect Leland Smith, W5KL, and his wife, Helen WA6WAR, at an impromptu breakfast in late July. Smith gave a short talk bringing greetings from the Board and Headquarters. He spoke of many accomplishments of the organization of which the membership should be justly proud, and also outlined some of the long-range plans which are under consideration. Smith concluded with a question-and-answer period which proved very informative.

Although not one of the chapter's scheduled meetings for the year, the get-together was well attended and the Smiths enjoyed the opportunity to meet with the chapter's members. President Smith plans to meet with other chapters during his official term. As of this writing, he plans to be in the Pacific Northwest in mid-August. □

We welcome rescues, coincidences, amusing experiences, thrilling experiences, or any remembrance which would make interesting reading to a non-ham. Please send to: Lenore Jensen, W6NAZ, 14867 Round Valley Dr., Sherman Oaks CA 91403; (213) 872-1089 or (818) 784-8517 □

### ALASKA

Arctic Amateur Radio Club  
Geophysical Institute West Ridge U of A  
PO Box 81389  
College, AK 99708  
1st Friday/monthly - 7:30 p.m.

### ARIZONA

Arizona Repeater Assoc., Inc. (ARA)  
P.O. Box 5291  
Phoenix, AZ 85010  
4th Thursday/monthly except July/Dec. 7:30 p.m.  
4250 E. Camelback Rd., Suite 475-K

Tucson Repeater Association  
P.O. Box 40371, Tucson, AZ 85717-0371  
2nd Sat/monthly — 7:30 p.m., Pima Co. Bldg.  
Net Thurs 7:30 p.m. 146.28/88 (146.22/82, 147.68/08, 147.70/10-PKT) (602) 747-8903 or 899-4776

### CALIFORNIA

Amador County Amateur Radio Club  
P.O. Box 1094, Pine Grove, CA 95665, Pioneer Elementary School, Pioneer, CA • 1st Thurs/monthly 7:30 p.m.  
WA6WY Rptr. — 146.835, 146.235.  
Net Tues. 7:30 p.m.

Contra Costa Communications Club WD6E2C/R  
P.O. Box 661, San Pablo, CA 94806  
Meets 2nd Sunday at 9:00 a.m.  
Hickory Post Restaurant/Lucky Lanes  
For info call Carl KA6OLK (415) 237-2621

East Bay Amateur Radio Club  
Salvation Army Center  
Rheem Ave. & 36th Street  
Richmond, CA 94804  
2nd Friday/monthly — 8:00 p.m.

El Dorado County Amateur Radio Club  
P.O. Box 451, Placerville, CA 95667  
W6HBH Repeater — 147.825 Out/147.225 In  
Net Thursday 7:30 p.m.  
Meets 4th Tuesday/monthly • Call for location

Electronic Museum ARC  
Foothills College, Los Altos  
Last Monday/monthly — 7:30 p.m.  
(except January and December)

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. W6TOR 146.34/94

Golden Empire Amateur Radio Society (VEC)  
P.O. Box 508, Chico, CA 95927.  
Al Biegler WA6WJZ (916) 343-6141/call 146.25/85  
Meets in conference room 1, Enloe N T Memorial Hospital, 3rd Fridays/monthly — 8:00 p.m.

Livermore Amateur Radio Klub  
3508 Gresham Ct., Pleasanton, CA 94566  
Meets: Valley Memorial Hospital  
Multi-purpose room, Livermore, CA  
2nd Saturday/monthly — 9:30 a.m.

North Bay Amateur Radio Association (NBARA)  
Homestead Savings  
440 Santa Clara  
Vallejo, CA 94590  
4th Wednesday/monthly — 7:30 p.m.

North Hills Radio Club  
Meets: 3rd Tuesday/monthly — 7:30 p.m.  
Carmichael Elks Lodge  
5631 Cypress Ave. • Carmichael, CA.  
Net 145.19 Thur. at 8:00 p.m.

Sacramento Amateur Radio Club, Inc.  
Contact: Norm Nelson, KA6YRC, (916) 428-7122  
after 6 p.m. Meets: Army Reserve Ctr., Army Depot,  
Fruitridge and Florin-Perkins Road  
2nd Wednesday/monthly — 7:30 p.m.

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

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

San Mateo Radio Club  
Beresford Park Recreation Center  
28th Ave. and Alameda de las Pulgas  
San Mateo, CA 94403  
3rd Friday/monthly — 7:30 p.m.

Simi Settlers ARC (SSARC)  
P.O. Box 3035, Simi Valley, CA 93063  
3rd Thursday/monthly — 7:30 p.m.  
Bank of A. Levy (across Larwin Sq.)  
K3HZPIR 147.165/765 Simplex 147.48

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

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

South Bay Amateur Radio Assn (SBARA)  
Fremont School, Laiolo Rd, Fremont  
3rd Wednesday/monthly - 7:30 p.m.  
Talk-in 147.015 MHz  
Frank Kibbich, WB6MRQ(415) 657-5730

Southern Calif. Amateur Transmitting Society (SCATS)  
Vine Elementary School  
1901 E. Vine St.  
West Covina, CA 91790  
1st Monday/monthly — 7:00 p.m. (coffee 6:30)

Stockton-Delta Amateur Radio Club, Inc.  
U. of the Pacific, Rm 122  
Kensington & Mendocino  
2nd Wed. monthly, 7:30 P.M.  
Rptr. 147.165/765 Net Wed. 8:00 P.M.

Valley of The Moon Amateur Radio Club  
Darrel Jones, WD6BOR (707) 938-8086 for info.  
358 Patten St., Sonoma, CA 95476 • Meets: Sonoma Police Station, 175 West 1st St., Sonoma • 3rd Wed./monthly 7:30 p.m. Simplex net 147.47 MHz Wed. 7:30 p.m.

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

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

West Valley Amateur Radio Club  
American Legion Hall Post #826  
5320 Fallbrook Ave.  
Woodland Hills, CA  
2nd Thursday/monthly — 7:30 p.m.

Yolo Amateur Radio Society  
Box 659 • Davis, CA 95616  
Meets: Conf. room — Heart S. & L.  
3rd & F Sts. (opposite police station)  
First Friday — 7:30 p.m.

### CONNECTICUT

Tri-City ARC  
Groton Public Library  
Route 117  
Groton, CT 06340  
2nd Tuesday/monthly — 7:30 p.m.

### FLORIDA

Dade Radio Club, Inc.  
Museum of Science  
3280 South Miami Ave.  
Miami, FL 33133  
1st and 3rd Tuesdays/monthly — 8:00 p.m.

Indian River Amateur Radio Club  
P.O. Box #5, Cocoa, FL 32922  
Grace Methodist Church — Needles Blvd.  
Merritt Island, FL  
4th Friday/monthly — 7:30 p.m.

Platinum Coast Amateur Radio Society  
1150 S. Hickory St., P.O. Box 1004  
Melbourne, FL 32902-1004  
Meets: 2nd Monday/monthly at Melbourne Red Cross  
Talk-in on 146.25/85 or 146.01/61 rptr.

### HAWAII

Big Island Amateur Radio Club  
Helco Auditorium  
1200 Kilauea Avenue, Hilo  
Call-in 146.28/88 or 146.16/76  
2nd Tuesday/monthly — 7:30 p.m.

## Share your experiences

Have you had a very interesting experience in Amateur Radio which the general public would like to read about? If so, please send it to me in writing. We are compiling a book of these, the profits of which would go to the ARRL Foundation.



## IDAHO

**Idaho Society of Radio Amateurs**  
Boise, ID Chapter • David L. Karaloff, Pres. N7EZQ  
U.S. Naval Reserve Center  
131 East Myrtle St. Boise, ID 83702  
3rd Tuesday/monthly — 7:30 p.m.

## ILLINOIS

**Bolingbrook Amateur Radio Society**  
532 Sheffield Rd.  
Naperville, IL 60565  
(312) 369-0747 / call in 147.93/33  
3rd Monday/monthly — 7:00 p.m.

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

**Dupage Amateur Radio Club W9DUP**  
Mid-America Savings and Loan  
55th & Holmes (55th St. near RT 83)  
Clarendon Hills, IL • 4th Monday/monthly — 7:30 p.m.  
(312) 971-1156 for more information

**Fox River Radio League**  
Valley National Bank, Lower Level  
Northgate Shopping Ctr. & RT. 31, Aurora, IL  
(312) 898-2779 for more information  
2nd Tuesday/monthly — 7:30 p.m.

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

**Schaumburg Amateur Radio Club**  
Meineke Rec. Center, Schaumburg  
3rd Thursday/monthly — 7:30 p.m.  
Net on remaining Thursdays — 8:00 p.m.  
147.285 and 443.625

**Six Meter Club of Chicago - K9ONA**  
Rptrs. 146.37/146.97 448.300/443.300  
Info net - Tues. 9:00 p.m. 146.37/97  
Annual Hamfest 2nd Sunday in June  
Santa Fe Park, Willow Springs, IL.

## INDIANA

**Fort Wayne Radio Club**  
Ron Koczor, K9TUS  
P.O. Box 15127, Fort Wayne, IN 46885  
The Salem Church  
3rd Friday/monthly — 7:30 p.m.

**Northeastern Indiana Amateur Radio Club**  
P.O. Box 745, Auburn Indiana 46706  
Meets: 2nd Tuesday/monthly — 7:00 p.m. at members homes  
Daily traffic net at 2300Z  
on 147.96/36 MHz, the WB9VDK repeater

## MARYLAND

**The Peninsula Radio Operators Society (PROS)**  
Family oriented activities — training and  
exams held throughout the year.  
Info net — K3NOQ/Rptr. 146.925 Tues. 1930 Local  
P.R.O.S., P.O. Box 2315, Salisbury, MD 21801

## MASSACHUSETTS

**Billerica Amateur Radio Society (BARS)**  
1st Wednesday/monthly - 7:30 p.m.  
Honeywell Cafeteria  
300 Concord Rd., Billerica, MA 01821  
Near Jct. Rte. 3 - Info - Rptr. 147.12

**Quannapowitt Radio Assn. (QRA)**  
United Methodist Church  
Vernon St.  
Wakefield, MA 01880  
4th Friday, September-May at 8:00 p.m.

## MICHIGAN

**South Eastern Michigan A.R.A.**  
Meets: 1st Fri./monthly 7:30 p.m. K8FC Rptr. 147.75/15  
Grosse Pointe North High School  
Building C, Cafeteria Commons  
For info contact N8CDY (313) 885-5557

## MISSOURI

**Heart of America Radio Club**  
American Red Cross  
3521 Broadway  
(816) 756-2365 x65  
3rd Tuesday — 7:30 p.m.

## NEW HAMPSHIRE

**Great Bay Radio Assn., WB1CAG**  
P.O. Box 911, Dover, NH 03820  
(603) 742-0130/332-8667  
2nd Sunday/monthly — 7:00 p.m.  
Dover Dist. Court. Talk-in 147.57

## NEVADA

**Las Vegas Radio Amateur Club**  
P.O. Box 27342, Las Vegas, NV 89126  
Operating 146.34/94 — open autopatch — Net Tuesday 8 pm  
Meeting 2nd Sunday 7:30 pm at Royal Ridge Clubhouse  
4601 S. Decatur near Tropicana Ave — Talk-in 34/94

## NEW JERSEY

**Gloucester County Amateur Radio Club (GCARC)**  
Woodbury V. F. W.  
1st Wednesday/monthly 8:00 p.m.  
Woodbury, NJ  
For info call K2JF (609) 589-2318

## NEW YORK

**Hall of Science Amateur Radio Club, Inc.**  
P.O. Box 141, Jamaica, NY 11415 — HOSARC — 2nd Tuesday/  
monthly — Hall of Science Building, 47-01 111 St., Flushing  
Meadow Park at 7:30 p.m. The tristates' only 3-band linked  
rptr. system 144.300 S/223.600 - /445.225 -

**Orleans County ARC**  
Civil Defense Center  
West County House Road  
Albion, NY 14411  
3rd Wednesday/monthly - 7:30 p.m.

**Staten Island Amateur Radio Assn. (SIARA)**  
P.O. Box 495, Staten Island, NY 10306  
3rd Friday/monthly — 8:00 p.m.  
Rm. B-201, College of Staten Island, Sunnyside  
Club Repeater — KA2PBT/R — 440.825/445.825

**Westchester Amateur Radio Association (WARA)**  
Scarsdale Village Hall  
Scarsdale, New York 10583  
Bernard Dubbs, President, WA2FSR  
1st Wednesday/monthly — 8:00 p.m.

**Westchester Emergency Communications Assn. (WECA)**  
147.66/147.06, 222.80/224.40, 447.475/442.475  
Mtgs: 2nd Monday/monthly - 7:30 p.m. Little Theater  
County Center, White Plains, N.Y. For further info write:  
P.O. Box 131 N. Tarrytown, N.Y. 10591. Call (914) 631-7424.

## NORTH CAROLINA

**Rowan Amateur Radio Society**  
Supplementary Education Building  
Salisbury, N.C. 28144  
2nd and 4th Mondays, 7:30 pm

## OHIO

**Ashtabula County ARC**  
Ken Stenback, A18S (964-7316)  
County Justice Center, Jefferson, OH  
3rd Tuesday/monthly — 7:30 p.m.  
County Repeater — 146.715

**C.A.R.S. (The Clyde Amateur Radio Society)**  
Ervin Remaley, K8BCAS, Secretary  
2nd Tuesday/monthly — 7:30 p.m.  
Community Rm., City Building, Clyde, OH  
Repeater: 144.75/145.35

**NOARS - Northern Ohio Amateur Radio Society**  
P.O. Box 354, Lorain, OH 44052 - 3rd Mon. 7:30 p.m.  
K8KRG — Home of the WW II Submarine USS COD  
WB8JBM — Noars Contest Station — K8KRG/Repeaters:  
— 146.10/70, 144.55/145.15; 449.8444.8; 223.10/224.70

## OREGON

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

## U.S. VIRGIN ISLANDS

**St. Croix Amateur Radio Club**  
Florence W. Williams Public Library  
49-50 King Street, Christiansted  
St. Croix, U.S. Virgin Islands  
1st Saturday/monthly - 1:30 p.m.

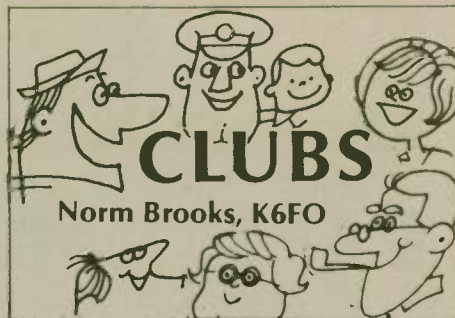
## VIRGINIA

**Eastern Shore ARC (ESHARC)**  
110 Church Street  
Chincoteague, VA 23336  
Repeater WA4TVS 147.85/1255  
Net Mon. 9 p.m. Mtgs. as announced

**Southern Peninsula Amateur Radio Klub (SPARK)**  
Repeater 146.13/146.73 - K4DHO (804) 851-5573  
Salvation Army Community Center (Big Bethel Rd.)  
P.O. Box 4128, Hampton, VA 23664  
1st and 3rd Tuesday/monthly — 7:30 p.m.

## WEST VIRGINIA

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



## Club meeting programs

The Westchester Amateur Radio Association, Westchester, New York, seeks guest speakers for meeting programs who have strong technical backgrounds. Club Secretary Dan Gabel, N2FLR, sent us information on recent programs:

• Jack Hart, WA2HWJ, of NYNEX, who is in charge of design for a new

## New incentive

### Peggy Cummings, KY8Y

The Fort Myers ARC — in an effort to interest more people in becoming hams, and then help keep them involved in Amateur Radio — has decided to try some new methods.

Jack Wolff, KB4BLN, has been appointed as Novice Program Chairman. He will be enlisting the aid of members of the club, to help prospective hams obtain their Novice tickets. The classes, consisting of three to five students, will be held in the leader's home and he/she will guide them through "A.R.R.L. Tune In The World" study program.

The course will be short and simple, probably four to six weeks, in order to

cellular mobile radio telephone system, described new system construction and operation.

• Richard Meirowitz, WA2ELE, senior engineer at Singer Company, discussed antennas low frequencies in limited space.

• Dick Robinson, W2OZA, who had formerly been chief safety engineer at the Underwriters Laboratories, spoke on safety for the Amateur Radio operator.

• Norman Sternberg, W2JUP, with a fantastic background in electronics, discussed the use of computers by Amateur Radio operators.

• Bill Barnett of AT&T Bell Laboratories, presented the company's program on commercial application of microwave radio.

• Cameron Gough, Assistant Chief Engineer of U-A-Columbia Cable Co. of Westchester, New York, enlightened the club members on the operations of the local Cable TV system.

• Club Program Chairman Charlie Hillman, W2RP, who is an antenna and propagation expert in his own right, presented programs on those subjects.

help keep the future hams interested. It is thought that because the instructor may sometimes delve into subjects that really aren't pertinent to the information needed to pass the Novice exam, some people may become bored and disinterested.

Jack KB4BLN, will be seeking volunteers (Elmers) to adopt each new Novice and help him/her to get started in Amateur Radio (setting up their station, operating, etc.—).

The FMARC has voted to present each new Novice with a free membership in the club for the remainder of the year (after they receive their Novice License). It is hoped that these programs will result in a large number of new and active hams in our area. □

Share your knowledge with your fellow amateur and Worldradio reader.



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Letter style on shirt is "Ivy Open" and on cap is "Sportswear."

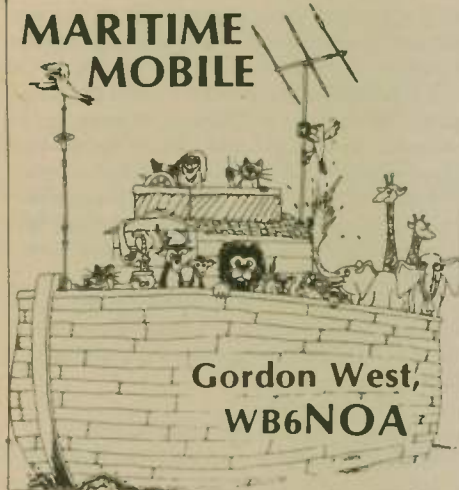
High quality golf shirts available, printed one side \$12, both sides \$14.

Now you can wear and display your call, name and your club name on a high-quality T-shirt for only \$10.00. Your call, name and A.R.R.L. logo (if desired), printed on shirt front, with club name printed on shirt back. Shirts (sizes S,M,L,XL) are available in light blue, light yellow, beige (tan) or white. A.R.R.L. logo available in 2 1/4" x 5" or 1 3/8" x 3" in red or white. Lettering is available in two styles — Ivy Open or Sportswear — and the following colors: black, royal blue, maroon, brown, green, red, or orange. For individual orders please add \$1.50 shipping and handling. Club orders (would prefer quantities of 10 or more) are shipped postpaid. Matching cap printed with your call and name has foam front and mesh back, is adjustable for size, and costs \$5.00.

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2272 Kellogg Park Drive,  
Pomona, CA 91768

California residents add 6% sales tax





### Equipment reviews

It's been some time since we've looked at Amateur Radio equipment and accessories, and I have had all summer long to put selected pieces of gear to the test in marine and mobile installations. Here's a quick review of how the ham radio gear is holding up.

The new ICOM IC-735 has been well-received by mariners and mobilers. Everyone likes the liquid crystal readout — at last, a readout we can read in the direct sunlight.

Other nice features in the 735 would include the built-in 10 FM (too bad the sunspot cycles won't cooperate) keyer, and 12 memory channels to store maritime mobile frequencies.

Yes, the ICOM-735 may also be used, in an emergency, to transmit a distress message on any frequency to signal for help. To enable the all-band transmitter section, locate the logic board and then find diodes 34 and 35 — they may be identified by the only ones with Teflon covering their leads. Snip these two diodes.

Never transmit out of band unless it is an actual life-and-death emergency. Transmitting out of band on marine sideband frequencies with non-type-accepted equipment is in violation of the FCC rules.

### Kenwood 940

The new Kenwood 940 is also capable of emergency all-band transmit as well as MARS, CAP and other emergency service transit. To unlock the Kenwood 940 transmitter section, locate the digital "B" board and spot ICs 111 and 112. Look closely for diode 135 and cut the lead to unlock the transmitter for MARS and CAP operation. For complete transmitter operation — in an emergency only, on any frequency — locate IC-109 and then snip diode 130.

The new Kenwood 940 is indeed a marvelous radio, but it's best left at home for base station operation because of its size and AC power requirements. It is not a DC radio.

So what is the Gordon West pick hit for maritime mobile ham radio and emergency marine radio operation? The Kenwood TS-430 still seems to be my best choice because of its special eighth mem-

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160M thru 10M

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ICOM M-700 ham/marine SSB transceiver

ory channel that stores duplex memory information. It's the only radio I know of in the Amateur Radio category that allows separate transmit and receive information to be stored in one memory channel. This is necessary for working, in an emergency, the marine telephone operator or the United States Coast Guard. All other sets must toggle between the VFOs or toggle between two memory channels. I run the 430 on the boat and the 940 at home. I also run the Yaesu 757 and ICOM 751 in our classrooms.

I specifically recommend maritime mobile equipment to suit the needs of the potential radio operator. A mariner who plans on getting his ham license but doesn't have it yet, and who is not familiar with all the controls on a ham radio, would do best to choose the ICOM M-700 marine, type-accepted sideband, which may tune into ham frequencies as well.

This set, along with the AT-120 fully automatic tuner, requires no knob twirling. Dial up the channel number, push the automatic antenna tune button and start talking. On marine channels, all that's necessary is a ship station license with no

test. If this same mariner later gets his ham radio license, the set is capable of operating on ham frequencies, too, including both upper and lower sideband.

On the other hand, licensed ham radio operators who love to twirl the knobs, dip and tune the antenna system, and play with many dials, may be encouraged to get a ham radio with general coverage capabilities. But these sets are only suited to the true ham who loves to play radio!

### Scanners

For you scanner enthusiasts, the ultimate scanner may have finally arrived. It



New Yaesu scanner

is manufactured by Yaesu and is called the FRG-9600. It covers from 60 MHz to 900 MHz without interruption. All those military frequencies plus the elusive 220 band can now be tuned in, and you can even tune in SSB signals on 2 meters, as well as downlink satellite communications on sideband on 2 meters and 432 MHz with tremendous clarity.

This scanner also features an S-meter that really works; the scanner is truly a fine piece of equipment to operate. It's priced in the \$500 range, but it's a dandy. Its only drawback is that it doesn't cover the 6-meter band nor any frequencies between 30 MHz and 60 MHz. That's strange — low-band reception would have been nice.

We now see that everyone is developing a multi-band whip antenna assembly for "spider"-type antenna operation. We have tried just about every one out, to include the well-performing Valor Model AB5 autobander antenna for automatic operation on 10 meters, 15 meters, 20 meters, and 40 or 75 meters. The Valor was a good performer with ground foil radials beneath its base.

So, after trying all different types of multi-band antenna systems out, which one do I like the best? I recommend the original, the "Spider"™ multi-band antenna, manufactured at 1131 Owensmouth Ave., #163C, Canoga Park, CA 91303.

Mechanically, this multi-band antenna is the strongest, easiest to assemble, and will withstand and rigors of the salt air. It even has a stainless steel version expressly for maritime mobile use. They are also the only one that offers individual coils set to marine frequencies. They deserve all the credit for this type of design; and while others may work well, I still find that theirs works best.

### White marine wire

If you have been looking for a source of white RG-8X coaxial cable as well as white #14 shielded, two-conductor power cable, try COMmar Inc., 70 W. Main St., Northboro, MA 01532; (617) 393-2411.



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\* GaAsFet RX Preamp

**ELH-730D**  
List \$156.95

**ELH-230D**  
List \$39.95

### Power Supplies



**EP-3030** List \$208.00

**EP-660** List \$69.00

Model	ELH-230D	ELH-330D	ELH-730D
Frequency Range	144-48MHz	144-148MHz	430-450MHz
Modes	All Mode (FM SSB CW)	All Mode (FM SSB CW)	All Mode (FM SSB CW)
Input Power	1W-3W	1W-3W	3W
Output Power	30W	50W	30W
Power Source	DC13.8V/4.5A	DC13.8V/10A	DC13.8V/7A
RX-PRE-AMP (About)	10dB	10dB	15dB
Input & Output Impedance	50Ω	50Ω	50Ω
Dimension (m/m) (W x H x D)	3.6" x 1.6" x 6.5"	3.6" x 1.6" x 8.5"	3.6" x 1.6" x 7.75"
N/W (About g)	18 oz.	24 oz.	23.5 oz.

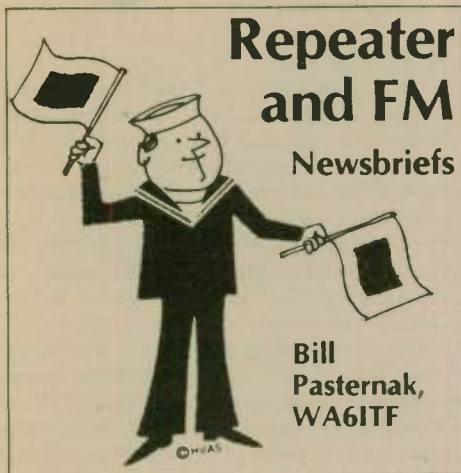
Model	EP-3030 (With Two Meters)	EP-660 (With Dual Meter)	EP-330 (With Two Meters)
Output Voltage	About 10V-15V D.C. (With Voltage Adjuster on rear side)	About 10V-15V D.C. (With Voltage Adjuster on rear side)	About 10V-15V D.C. (With Voltage Adjuster on rear side)
Output Current	25A D.C. (Continuous) 30A D.C. (Max.) (50% Duty Cycle)	5.5A D.C. (Continuous) 6.5A D.C. (Max.)	50A D.C. (Continuous) 55A D.C. (Max.)
Ripple Voltage	Under 30mV (P-P) (Rated)	Under 30mV (P-P) (Rated)	Under 30mV (P-P) (Rated)
Power Consumption	770VA (Rated)	180VA (Rated)	1,300VA (Rated)
Circuit Protection System	Automatic Current Limiting System shuts down in excess of 30 amps	Automatic Current Limiting System shuts down in excess of 6 amps	Automatic Current Limiting System shuts down in excess of 55 amps
Dimension (L x W x H)	13" x 9 1/2" x 6"	9" x 4 1/2" x 4"	18 1/2" x 12 1/2" x 7 1/2"
Weight	19 lbs	8 1/2 lbs	44 lbs

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## COMING OF AGE

Well, it has taken the better part of two decades, but hams are finally learning they can do a lot more with their repeaters than just sit around and "ratchet-jaw" over them all day. Some groups are joining forces to provide local, regional, statewide, and even interstate linking services such as the Condor Connection in California, and other such interties nationwide. Still others are converting their talk-boxes into "A/O-10 Gateway" operations, thereby letting their system users talk worldwide via their hand-held and mobile VHF radio.

For this writer, the most exciting new use of the amateur repeater is in the field of educating the amateur community itself on matters that effect the day-to-day existence of Amateur Radio.

In 1976, Jim Hendershot, WA6VQP, started the world's second "on-air" bulletin service. He called it the Westlink Radio Network, and it was predated only by the ARRL's WIAW service. The two differed primarily in format rather than content. While the ARRL Official

Bulletins were (and still are) written to the time-honored League format, Hendershot reasoned that this was not very entertaining to the average repeater user. Since there was no law against using modern "news on the hour" radio format for a ham radio bulletin, Jim adopted this method and started the weekly Westlink Amateur Radio News.

Today, some 400-plus newscasts later, it is my privilege and honor to head the Westlink Radio Network, Inc., and along with 40 or so volunteers worldwide, to bring a new newscast out each week that is estimated to be heard by at least one-third of the world's total Amateur Radio population. It makes me feel even more proud to know we have helped to spark a new trend in Amateur Radio — that of using the service and its vast number of VHF and UHF relay facilities for something that gives it all a purpose.

From our beginnings have been born other regional news organizations such as the Metroplex News and Information Service in New York City run by Alex Magosci, WB6MGB. In southwest New Jersey there is the Uplink Radio News Service, which is the brainchild of Charlie Kosman, WB2NQP. Some of you may remember WB2NQP as one of the key operators during the 1984 Pre-Olympics cross-country torch run. Dayton, Ohio — which is the home of the world's largest Amateur Radio convention — also plays host to a regional service called Daytonlink, which was developed by Gary Eldridge, KC8UD; Bill White, WB4LAI; and Phil Thomas, KA8KEJ. While Daytonlink has since changed its name and organizational affiliation, Phil Thomas is still hard at work cranking out weekly local newscasts.

But newscasts are not the only way a repeater can be used as an educational tool. Another is that of structured open discussion, especially on matters of im-

mediate interest to all hams. Such a topic is the ARRL's request for rule-making aimed at enhancing Novice Class and thereby Technician Class operating privileges.

The FCC has given it the designation RM-5038, and it's a hot topic. So hot that a group in Chicago recently intertied repeaters in three states to spend an evening discussing the pros and cons of the issue. What follows is a report on how technology and education can be put together through Amateur Radio.

## Midwest approves League's Novice proposal

By a margin of 4 to 1, a sampling of Midwest area hams have voiced their approval of the ARRL's request to the FCC for expanded Novice and Technician class operating privileges. On Wednesday, 17 July, almost a dozen area repeaters were interlinked to provide a local teleconference radio network for the purpose of discussing the League's proposals as outlined in RM-5038, and to gain an area-wide consensus on the item.

The individual who spearheaded the net was Hap Holly, KC9RP, who utilized the services of the Broadcast Employees Amateur Repeater and nine other 2-meter and 220 MHz systems to blanket an area from southeastern Wisconsin to north-eastern Indiana and permit a two-way dialogue on the issue. Net moderator was Angelo Polvere, KA9CSO, of Inverness, Illinois, a Chicago suburb.

The consensus of the majority of check-ins was generally favorable, although a number of participants voiced their opinion that a revised Novice license such as is proposed in RM-5038 be non-renewable, and only for a single license term of from two to five years. Some individuals were quick to point out that the current Novice license is of little help in adding new vitality to the ranks of radio amateurs, since the CW-only limitation combined with current frequency assignments and the antenna sizes for these bands can make it impossible for many apartment, townhouse and condominium dwellers to utilize their privileges once they have obtained their licenses.

Revising the privileges to permit the use of voice communications on VHF and UHF would tend to have a more positive effect, since equipment and associated antennas are more compact. Also noted by one participant was the fact that he

saw little encouragement given to new amateurs from longer term operators, since — for the most part — amateurs with higher class licenses tend to avoid the Novice subbands, leaving the newcomers to fend for themselves. Just about every conceivable special interest group in that geographic area was represented in the forum, including the area's 220 MHz repeater owners and users. They have a definite vested interest in what happens as a result of FCC action on RM-5038, and they were one of the most vocal groups in support of the ARRL's position. Tnx: K9XI

## Repeater council growth

While some repeater councils are losing members, one is growing by leaps and bounds. It's called the Carolina Virginia Repeater Association/South Eastern Repeater Association. It recently added another state-and-a-half to the list of areas it represents.

Why is CVRA/SERA bucking the trend? Two reasons. First, an obvious need exists for a group like this to fill in the gap as more systems take to the air, but more importantly, CVRA/SERA is obviously doing something right. Here's the latest from that part of our world of FM.

## Eastern Kentucky is officially CVRA

The eastern one-third of Kentucky is now an official coordination district of the CVRA-South Eastern Repeater Association. As previously reported, the portion of Kentucky east of Clark County and extending the length of the state had been considering an alliance with CVRA-SERA. According to a source within the parent organization, eastern Kentucky has been accepted as CVRA-SERA district #6, and repeater owners in that region have named Fred Jones, WA4SWF, as their CVRA-SERA Regional Director with Terry Estes, WB4ASZ, elected as the Vice-Director. The western two-thirds of Kentucky is still functioning independently of CVRA-SERA under the guidance of the Louisville-based Kentucky Repeater Council.

## Georgia to CVRA

Georgia appears on the verge of dumping its two existing statewide repeater councils in favor of an alliance with the neighboring CVRA-SERA.

According to information received by Westlink, a recent meeting held in Atlanta set the stage for the change with a petition containing 21 names, signed and forwarded to CVRA-SERA as a request to become a part of that organization. While the CVRA-SERA must still vote on the matter of accepting Georgia as the 7th CVRA-SERA Coordination District, our source indicates that acceptance is almost assured sometime in mid-August.

Until now, repeater coordination in Georgia has been the province of the Georgia Amateur Repeater Council, headquartered in Conyers, Georgia. Recently, another statewide council surfaced in Macon.

The Central Georgia (sic) Repeater Association began operation in April with its first action being a demand that all Georgia repeaters change to the Pacific Northwest 20 kHz bandplan on 01 July. That date has passed, and no move to 20 kHz took place in Georgia.

However, some view the move by Georgia's repeater owners to join in under the politically powerful CVRA-SERA "umbrella" as a way of preventing a major confrontation from developing between the two rival in-state organizations. If CVRA-SERA membership is ap-

## Maritime Mobile

We recently ran tests on their miniature RG-8X coaxial cable, and it's ideal for long runs up the mast for a VHF antenna, and also ideal for most ham radio lead-in hookups where the RG-8U cable won't fit. The braid is 98% shield, and the center conductor is healthy enough to handle up to a KW. At 144 MHz, 100-foot losses are in the area of 2.8dB.

Best of all, it's pure white and will complement any marine installation.

The same organization also has quantities of white duplex wire, ideal for power feeds to any equipment drawing less than 10 amps. (This would rule out a high frequency or Amateur Radio SSB station that requires much larger wire.)

The #12 shielded wire would be ideal for a VHF run, Loran run, or any other application where the black and red wire needs to be covered by an outside jacket and also shielded against stray RF. The black goes to the battery negative, the red to positive, and the shield that surrounds both goes to the ship's ground system. We talked about this wire earlier when we gave instructions on bringing up 12 volts to a marine audio system.

Again, best of all, the wiring has a white cover, which makes it ideal for marine installations.

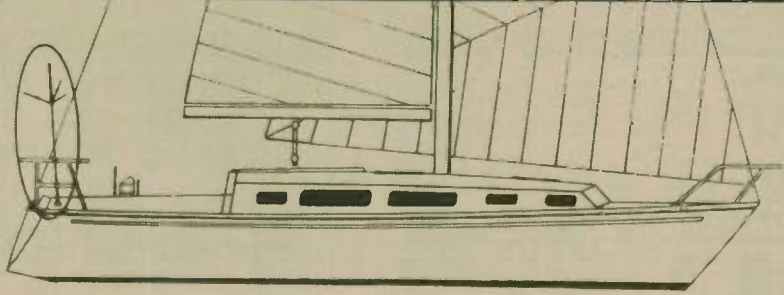
Finally, continued kudos to the hard-working men and women who make up the many maritime mobile and vehicular mobile nets. Their unselfish monitoring gives us all peace of mind when we're far out at sea or a long way from a telephone.

Also, congratulations to go marine Volunteer Examiner teams that assist those in distant ports and distant places in the country with the opportunity to upgrade. More and more examiners are banding together and offering examinations in distant ports. Leona and Carl Wallace have done a great job in covering local Baja California waters. Are there any others?

Good mobiling, and more news on automatic antenna tuners next month. □

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proved, neither will be necessary any longer.

### 15 vs. 20 — the beat goes ON

Turning to the world of frequency coordination politics, we have two items on the 15 kHz vs. 20 kHz front this month. Both are self-explanatory and need no further introduction.

### Iowa stays 15 kHz — opts for statewide PL plan

The Iowa Repeater Council has voted to remain with the existing ARRL-approved 15/30 kHz bandplan now in effect in Iowa, and to oppose conversion to the 20 kHz Pacific Northwest bandplan.

According to the IRC newsletter, there were many reasons — both pro and con, but the main reason for the state electing to stay with 15 kHz comes from what the council terms "some Iowa common sense". That is, "... if it ain't broke, don't fix it!" The council concluded that a very workable 15/30 kHz plan already exists in Iowa, and they could see no reason to change it. Instead they are going to a voluntary statewide CTCSS access plan for 2-meter repeaters, wherein only six standard CTCSS (PL) tones would ever be necessary to access any open repeater system. The reason for addressing council-assigned tone-access for repeaters is to plan for the future, and is not necessary for implementation at this time. Tnx:IRC

### Nevada goes 20, coordination shared

Nevada, with the exception of the area around Las Vegas, has become a 20 kHz state. This is according to Northern Amateur Relay Council President Don Smith, W6NKF, and Vice President John Anslow, WA6DPJ. The pair told Westlink that an agreement had been reached with the Utah State Frequency Coordinators for Utah to assume coordination on all bands in the eastern half of Nevada, while NARC would retain its interest in coordinating requests coming from western Nevada.

In their discussions prior to making a public announcement, NARC and the

Utah Coordinators agreed that the Pacific Northwest 20 kHz would be that used in Nevada. Only the area directly adjacent to and including the city of Las Vegas is exempted from the joint NARC/UTAH presence.

Traditionally, the southern tip of Nevada has followed coordination practices of Southern California, especially in matters concerning the 420-450 MHz band, where a very strong presence of the Southern California Repeater and Remote Base Association is known to exist.

The actual frequency coordinator of record for Nevada is R. Scott Fowler, WA7GIV, but the latest national listing indicates his domain is strictly limited to the environs surrounding Las Vegas.

This change is effective immediately, but it will have little impact on the actual on-air operation of hams in Nevada. This is because of a sparsity of population, hence a very small number of repeaters in the state. In fact, it will be several years before the standard 30 kHz channels are filled, if that ever does take place.

### Not FM, but it's a favorite band, so...

Fostering the re-development of the 6-meter band is the aim of a newly organized group called the Southern California Six Meter Club. The group has established two nets aimed at increasing utilization of the band. The first is on Tuesday evenings at 2000 Pacific Time on 50.150 SSB, while the second gathering

takes place every Thursday at 2000 on FM via the 52.280 Castro Peak Repeater. More information is available by contacting club officers K6JZK, K6PHE, N6FSL, WA6PMX or K6GSX at their respective Callbook addresses.

And this postscript to the above... for those of you who think 6 meters is a vast uncharted wasteland, you had better stop listening to those propagation experts who say that 6 is dead. It's not. In fact, the summer of 1985 is turning out to be quite a DX season, especially along the eastern seaboard.

In case you were not aware, the recent closure of the old 405-line monochrome television system in the United Kingdom has brought a goodly number of British hams the privilege of limited 6-meter operation. As a result, contacts across the Atlantic are starting to take place, and are also ushering in a new era in 6-meter activity. In fact, there is so much interest growing on this band — especially in the Northeast — that many of the old-time 6-meter operators who ran low-power AM in the late 1950s and '60s are breaking out their old Communicator IIs and IIIs, their old Clegg 99'ers, Polycomm 6s, and other ancient gear to bring the band back to life in the hope of snaring a bit of DX.

Reports are that even a number of truly vintage Heath 6ers, Senecas, Globe-Scout 680s and the like are showing up, proving that it does not take state-of-the-art megabuck radio to work DX when the conditions are right. As the man once said

... Try it, you'll like it!

### A parting shot

The more I get back into the swing of writing a column such as this, the more I realize how much I have missed doing it. Admittedly I am cheating a bit, since I have this neat computer system that permits me to merge existing stories from my Westlink Report Newsletter into the text of this column, but I still enjoy the non-news part. This part where we are talking one to one.

Since departing from the writing of 'Looking West', I have thought about finding a way to bring it back. When Worldradio asked if I could supply FM and repeater news, I agreed to do so on a time-available basis. I figured this is one of the most respectable publications in the field, and proves you do not have to be "numero uno" to be of the highest moral structure.

The more I get into writing this column, the more I realize how much I have missed it. So, if you do not mind, I think I'll hang around for a while. Sorry I cannot retitle this column "Looking West". That name is the legal property of another publication. But maybe one of you out there has a better name for this monthly or bi-monthly concept than Repeater and FM Newsbriefs. If so, let me know what your idea is. We offer no prizes. Just a thank-you. ... And so it goes... de WA6ITF



Godspeed is escorted into St. Thomas harbor by a flotilla of Virgin Islands ham radio operators, who sailed out to welcome the replica as it completed its 31-day Atlantic crossing. (Photo by NP2AZ)

## Maritime

(continued from page 6)

longer short on inhabitants or ships. While David Ackley, W4UWH, was busy placing phone patches through his repeater from the Godspeed crew to their friends and relatives in Virginia, Klaus Willems, WP2ACV, rushed to make arrangements to take news media from St. Thomas and Virginia aboard his U.S. Coast Guard Auxiliary vessel, Pelican, so they could photograph the Godspeed under full sail as it entered the harbor.

After docking at Yacht Haven Marina in Charlotte Amalie, members of the Godspeed crew had a few days to relax, and some of the crew took time to meet local members of the Virgin Islands ARC at their weekly Tuesday luncheon meeting. Due to delays which put the voyage behind schedule, the decision was made to leave the Godspeed in the Caribbean until after hurricane season. The square-rigger may not complete the final leg of its voyage to Virginia until next spring.

When the Godspeed resumes its voyage, we'll look forward to hearing WA4CHQ Maritime Mobile once again.

## Aviation

(continued from page 14)

N9EA, from the Schaumburg ARC; Jack Montgomery, K9DQU, of Chicago's Metro ARC; Sandra Cianciolo, KA9QEI, from the Libertyville and Mundelein Amateur Radio Society; Jim Meyer, K9QVB, of the Northern Illinois DX Association; Dale Svetanoff, WA9ENA, from the Northwest ARC; Jim Georgias, W9JUG, from the DeVry ARC; Bob Drapeau, K9AJW, of the Chicago Suburban Radio Association; Richard Griffith, KD9U, for the Navy MARS; the ARRL's Illinois Section Traffic Manager Steve Bonine, KB9X; Tom Talley, KA9QPG, of the Chicago Area Packet Radio Association; and Dick Beers, WD9IIC, from AM-SAT.

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When compared with its predecessors, the HW-7 and HW-8, the new Heath HW-9 QRP transceiver merits the "deluxe" tag its manufacturer hung on it. This latest version of the series which has appealed to the low-power contingent for more than a decade is years ahead of the earlier models in design and performance.

Heath's engineers redesigned and updated the popular line of transceivers to include many features found in more elaborate and more expensive rigs — many of them improvements the Amateur Radio public let the company know it wants. One only has to look back over the progression of modifications to the HW-7 and HW-8 to see that RIT (receiver incremental tuning), better filtering, better audio and improved sensitivity were high on the list of wants.

Heath got most of the message. Gone, for instance, are the direct-conversion receivers in the earlier versions. In their place is a much-improved heterodyne receiver complete with RIT, crystal filter, double balanced mixer, better audio filtering, a 1-watt audio amplifier and a low-impedance output to match most headphones or speakers.

The transmitter portion of the HW-9 also was updated. Gone is the noisy antenna change-over relay; break-in keying is vastly improved; and power output has been boosted through use of parallel finals.

The HW-9 is an eight-band, CW-only transceiver (price class: \$250) which tunes the first 250 kHz of each band. The basic unit comes with the traditional 80-, 40-, 20- and 15-meter bands offered in the HW-7 and HW-8.

However, Heath now offers an optional accessory bandpack (\$40) which provides 30, 17, 12 and 10 meters — a very worthwhile addition to the rig. (More bands is another of the user-demands the company met.)

A third accessory is the PSA-9 power supply (\$40). The company also offers a matching antenna tuner and SWR/wattmeter, which were reviewed earlier in this column.

The HW-9 is assembled on two main printed-circuit boards, which mount on either side of an aluminum shield dividing the cabinet. The HW-9 comes in the same size cabinet as the earlier models, but the familiar two-tone green has been dropped in favor of a light metallic brown in two tones and accented with red letters.

Wiring was easy and straightforward. The whole project is aided by Heath's practice of supplying capacitors, resistors and diodes in a taped-together string matching the order in which they are soldered onto the boards.

Take care in handling the small, metal cans containing the RF coils, however. It's easy to rub off the critical identifying part numbers, which appear to have been applied with a rubber stamp.

Even though the accessory bandpack can be wired into the HW-9 well after the basic unit has been completed, it is recommended it be done as part of the original wiring process. If nothing else,

that move sidetracks the unnecessary headache of disassembling the original work to add the extra bands.

Assembly of the HW-9, adding the bandpack and wiring the power supply required about two weeks' work on a hit-and-run basis. The whole thing would have gone together faster had I been able to devote the time to it on a regular basis.



The Heath HW99 QRP transceiver (Photo courtesy of Heath Company)

From a performance standpoint, the HW-9 is a whole new ballgame in relation to the HW-7 and HW-8. No effort was made to compare the HW-9 to other QRP transceivers, however. Rather, it was evaluated in terms of the transceiver it replaces.

The receiver's performance is perhaps the most impressive. Improved sensitivity,

the RIT, better filtering and better output threw the HW-8 into a shadow. Signals were heard on the HW-9 which were almost unreadable on the HW-8's direct-conversion receiver.

The transmitter's performance exceeded the company's ratings. Heath says to expect 4 watts output on all but 10 meters, where 3 watts would be the norm. Output from this test rig ranged from 7 watts on 80 meters to 4 on 10 meters.

On the negative side, Heath has chosen an unusual crystal filter design — an 8.830 MHz center frequency with a 2.1 kHz bandwidth — incredibly wide for a CW-only transceiver. The audio filter takes up some of the slack, of course, but a more realistic filter bandwidth would boost performance and help with ultimate rejection of unwanted signals.

As in the case of the HW-8, the HW-9's analog dial calibration sometimes poses a hit-or-miss situation — not a pleasant thought for those operating at or near the edge of a band or sub-band. Heath would be well advised to include a simple crystal calibrator with output every 25 kHz for improved dial accuracy. That is a major complaint about the HW-8 which Heath ignored in the design of the HW-9.

While the RIT is a welcome addition to

the receiver, it should have a wider range than the plus-or-minus 1 kHz claimed in the specs or the plus-or-minus 2 kHz encountered in the test unit.

The HW-9 is ripe for modifications, just as the HW-8 was. There is a limited amount of room inside the cabinet to hang one or two small projects, such as an electronic keyer or the aforementioned crystal calibrator.

The unit ought to prove as much fun to operate and tinker with as the earlier models.

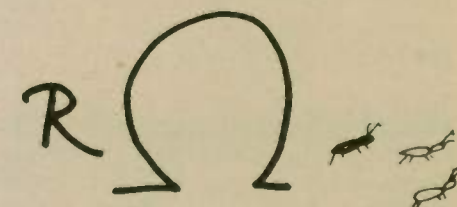
The HW-9 is a worthy successor to the HW-8. □

## Correction

Thomas F. Trimmingham, VP2KG, president of the Radio Society of Bermuda, wrote to inform us that the 10-meter beacons we listed on page 16 of our July issue were wrong. We showed it as VP8BA on 28.235 MHz, when it should have read VP9BA. We apologize for any inconvenience this may have caused our readers.

## Ohm-Brew

Lewis Kanoy, W4DCW, of Winston-Salem, North Carolina, is our October winner. The answer is on page 39



All "Ohm-Brew" entries should be neatly drawn on 3" x 5" cards, for easy handling. On the backs of the cards, print or type your name, address and call sign. Entries not used will not be acknowledged, due to the volume of entries received. □

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# 10-10 INTERNATIONAL News

Chuck Imsande, W6YLJ  
10-10 19636

## The Honor Roll of the Top Ten

As it is with many organizations, Ten-Ten has a reward for those who devote much time and energy in searching out new 10-10 numbers. In 10-10, we call it the TOP TEN. Each quarterly issue of the 10-10 International News magazine lists the TOP TEN. The most recent issue lists WA5JDU at the top with 14300 10-10 contacts! We thought you might like to know a little about Robert T. Osborn, WA5JDU, 10-10 #3017, currently 10-10's top number collector.

Robert was born in Texas and makes his home in San Antonio, and was first licensed in March 1964. He is 34 years old and has been a member of 10-10 since December 1972. He spends four hours or more a week on the radio, "depending on band conditions". Robert's equipment consists of a Ten-Tec Omni C with a Heathkit 2B220 Linear and a Wilson System 36 antenna up 60 feet.

In addition to enjoying the collecting of 10-10 numbers, Robert has collected 26 countries on 10-10 and has WAS 10-10. He also has WAC, WAS and DXCC with 232 countries worked. What does Robert enjoy about Amateur Radio? "Ragchewing, meeting 10-10 members in person, chasing 10-10 and certificate numbers and DX'ing on 10." (What else is there?)

Robert is active in the San Antonio Radio Club and the San Antonio Repeater Organization, and has worked Field Day with the San Antonio Radio Club for 18 years!

If you are wondering how Robert keeps all of those 14300 10-10 numbers straight, he says he keeps them in numerical order in a notebook, but he hopes to get a computer in the near future. Oh, by the way, Robert has been on the top of the TOP TEN since winter 1984, when he replaced Grace Dunlap, K5MRU, and Robert is totally blind. He is certainly a great asset to 10-10 and Amateur Radio in general.

The rest of the TOP TEN are:

No. 2	K5MRU	13400 contacts
No. 3	W0RWC	12200 contacts
No. 4	WA9LIC	10600 contacts
No. 5	PJ2WJ	8600 contacts
No. 6	KA4KAH	7900 contacts
No. 7	WD4MPG	7900 contacts
No. 8	W1KZH	7800 contacts
No. 9	KS6A	7700 contacts
No. 10	WA6FFS	7300 contacts

## Cincinnati Area Ten Tuners QSO Party results

The March 9th Cincinnati Area Ten Tuners (CATT) 2nd Annual QSO Party had a bigger turnout this year than last year with 25 logs submitted, including three from DX countries. The overall winner was KD8KU with 127 points, just beating out W4JHE who had 126 points. Third place, just 1 point back, was WD8MQJ with 125 points. Fourth place went to KW8X and fifth place was captured by KD8US. PA3AJT from The Netherlands won First Place for Europe with JI3BFG from Japan winning the Asia award. By the way, the Overall Winner, KD8KU, is a YL whose name is Julia Godsey who lives in Cincinnati, Ohio.

## New 10-meter beacon

Rich Levy, WB2MAN, sends along information that a new beacon is operating in Florida as KF4MS on 28.2015 MHz. Checking beacons for signal strength is one way to check 10 meters for openings.

## Silent Key

Ten-Tec has lost one of our long-time members and our first call area manager, Earl White, W1NC, 10-10 #329. Earl was first licensed in 1934 and became a member of 10-10 in 1968. He served as 10-10's First District Manager for a good many years (I went back to the Spring

1978 10-10 Bulletin, my earliest copy, and he was the First District Manager at that time) and served 10-10 well for these many years.

Earl became a Silent Key on 23 May 1985. Earl will be missed. He is being replaced by his close friend John Schmitt, WA1ZLK, as the First District Manager. If you are a "1" call, please send your dues and correspondence to John at 66 Edward Road, Watertown, MA 02172.

## Ten Ten record keeping

Are you looking for an easy way to keep your 10-10 records? 10-10's Fourth District Manager, Dave Buschow, WD4MPG, has published a record and dupe sheet for keeping record of 10-10 numbers worked. Dave's permanent record, called "QUICK CHECK", is printed on 8 1/2" x 11" stock and fits into a standard three-ring binder. Cost is \$3.60 post paid to any U.S. ZIP.

Send your order to Dave Buschow, WD4MPG, 7725 Fisher Drive, Falls Church, VA 22043. By the way, if you are a "4" call living in the state of Florida, Dave is the one you should send your dues to.

## Closing notes

If you are interested in receiving information on becoming a member of 10-10, (next page, please)

## Are you radioACTIVE?



Dean LeMon, KRØV sure is! Dean got active in Amateur Radio when he was 16 years old and earned his Extra Class license in less than four years! "It's a fascinating hobby and a great way to meet all kinds of new people from all over the world."

Dean has cerebral palsy and got started in Amateur Radio with help from the Courage HANDI-HAM System. The HANDI-HAM System is an international organization of able-bodied and disabled hams who help people with physical disabilities expand their world through Amateur Radio. The System matches students with one-to-one helpers, provides instruction material and support, and loans radio equipment.

Isn't it time you got radioACTIVE with the Courage HANDI-HAM System?

Call or write the Courage HANDI-HAM System  
WØZSW at Courage Center,  
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Golden Valley, Minnesota  
55422, phone (612) 588-0811.

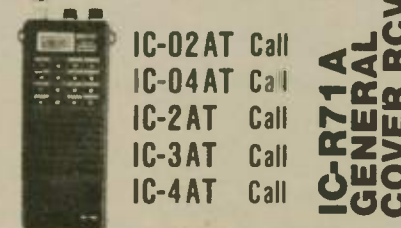
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IC-04AT Call  
IC-2AT Call  
IC-3AT Call  
IC-4AT Call

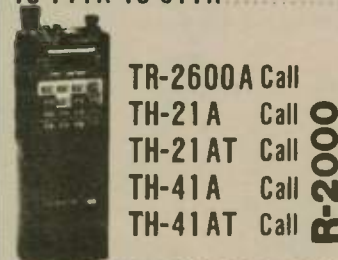
IC-R71A  
GENERAL  
COVER RCVR



TS-940S/AT ..... Regular SALE \$1995.00 Call  
TS-930S/AT ..... \$1799.00 Call  
TS-930A ..... \$1599.00 Call



TS-711A TS-811A ..... Call



TR-2600A Call  
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TH-21AT Call  
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TH-41AT Call

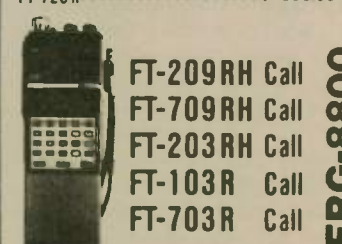
R-2000  
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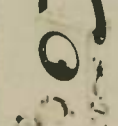
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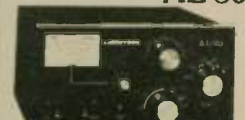
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# SSTV



G.E. "Beb" Bebermeyer, WB0UNB

## News from IVCA

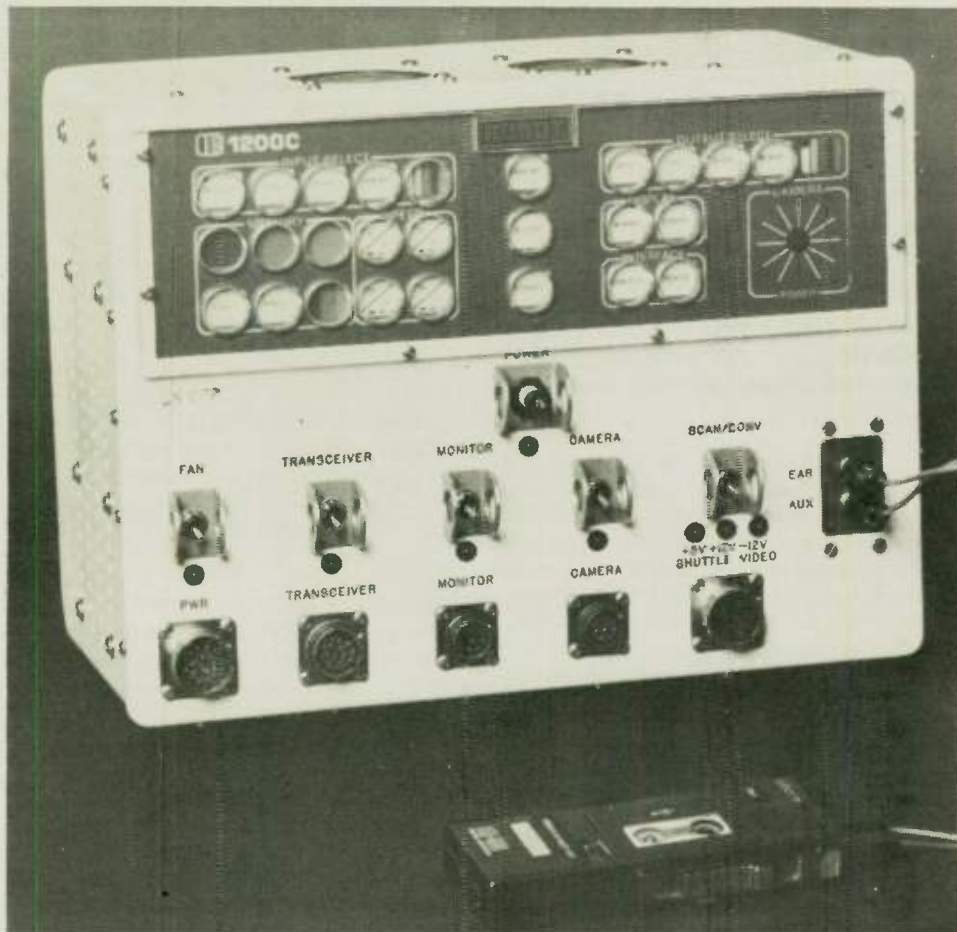
IVCA Net is tipping their hat to Herman Perkins, W4TUQ, for having received more certificates for his black-and-white and color video than anyone else in their SSTV contests.

They also said that, due to the band conditions which — for the most part — have been on the poor side, they are suggesting we create a new frequency, 7230, for slow scan. It's in the General section and easy to remember. As an example, if conditions on 20 meters are poor, the IVCA Net will shift to 40 meters after the first 20 minutes. They need your input on this idea.

Lou Tepfer, W6FVV, said they are going to have very interesting and competitive programs coming up this fall.

## History made in SSTV

History was accomplished from 29 July through 05 August, when slow scan video pictures were received from outer space via the Challenger 51-F Spacelab. Astronaut Tony England, W0ORE, using a Robot 1200C scan-converter connected to his 2-meter radio, transmitted SSTV to ham operators all over the world. The video transmissions were sent downlink using the FM mode. The 1200C scan-converter was donated by Robot Research, Inc. NASA made some modifica-



Robot 1200C, as revised by NASA for the Challenger 51-F Spacelab.

tions by installing the unit in a specially designed aluminum case for portable operation aboard the shuttle.

Of the colored pictures that I saw retransmitted by hams on the 20-meter band, the quality was very good. Some of the hams who received excellent pictures were Roberta Chamalian, WB1ADL; Wendell Millman, VE1BZV; Clay Abrams, K6AEP; G. Klatzko, ZS6BTD; and Frank Biba, N5GH. W0ORE sent High Resolution Color at 36 seconds, Standard Resolution Color at 12 seconds, and Frame-Sequential Color at 8 seconds; R,G,B.

A second SSTV space shuttle flight may be scheduled for later this year. On this flight, a 10-meter FM downlink will be used for spacecraft video transmissions. Dr. Owen Garriott, W5LFL, will operate during the flight.



Here is a picture of the first two-way SSTV contact made on the new 24 MHz band (22 June 1985 at 1815 GMT), between Branan Beyt, W5ZR, and Don Miller, W9NTP.

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## 10-10 News

(continued from page 34)

drop me a note or QSL card along with a No. 10 (business-size) SASE for complete information. My address is 18130 Bromley Street, Tarzana, CA 91356. If you are one of those members who have let your dues expire and cannot find a record of your 10-10 number, send me your name, current call and all previous calls, and I will check the computer records and advise you of your number.

If your dues has expired and you want to renew and have an "8" call, send your \$4 to the Eighth District Manager, John Hugentober, N8FU, 4441 Andreas Avenue, Cincinnati, OH 45211.

I have a few copies of the latest issue of the 10-10 International News. Send 56 cents postage and I will send you a sample copy (U.S. ZIP codes only).

That's it for this month. Best 73, es cu next month.

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  - 7/8 inch loss .28 dB/100 ft. @ 30 MHz
  - 2.54 dB/100 ft. @ 1000 MHz ..... \$3.25/ft.
- Corrugated Copper Outer Conductor with Polyethylene Jacket
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RG58U mil spec 96% shield .....(\$10.00/100) or 11¢/ft.  
RG62A/U 96% shield mil spec 93 ohm .....12¢/ft.  
RG174/U min. 50 Ω mil spec .....10¢/ft.  
RG213 noncontaminating 96% shield mil spec .....36¢/ft.  
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RG58U 80% shield .....07¢/ft.  
RG58U 95% shield .....10¢/ft.  
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UG-88C/U BNC Male for RG-58, Amphenol .....\$1.25  
UG 273 BNC-PL259 Amphenol .....\$3.00  
3/16 inch Mike Plug for Collins etc. (cutoff) .....\$1.25

shipping  
Cable — \$3.00 per 100 ft.  
Connectors — add 10%, \$3.00 minimum.  
Orders under \$20 add \$2 additional plus shipping.  
Charge card — orders over \$30 only.  
COD add \$2.00. Florida Residents add 5%.

Confused? You have a lot of company! These charts may help. Clip and save.

### SATELLITE MODES

Mode	Uplink	Downlink
A	145 MHz	29 MHz
B	435 MHz	145 MHz
J	145 MHz	435 MHz
K	21 MHz	29 MHz
L	1.3 GHz	436 MHz
S	1.3 GHz	2.4 MHz

### UHF/SHF BANDS\*

Band	From	To
L	1 GHz	2 GHz
S	2 GHz	4 GHz
C	4 GHz	8 GHz
X	8 GHz	12 GHz
Ku	12 GHz	18 GHz
K	18 GHz	27 GHz
Ka	27 GHz	40 GHz
V	40 GHz	and up

\* Based on IEEE Standard

### FREQUENCY — WAVELENGTH CONVERSION

Frequency	Wavelength
1.8 MHz	160 meters
3.5 MHz	80 meters
7 MHz	40 meters
10 MHz	30 meters
14 MHz	20 meters
18 MHz	17 meters
21 MHz	15 meters
24 MHz	12 meters
29 MHz	10 meters
146 MHz	2 meters
220 MHz	1 1/4 meters
435 MHz	70 cm
1.3 GHz	24 cm
2.4 GHz	13 cm

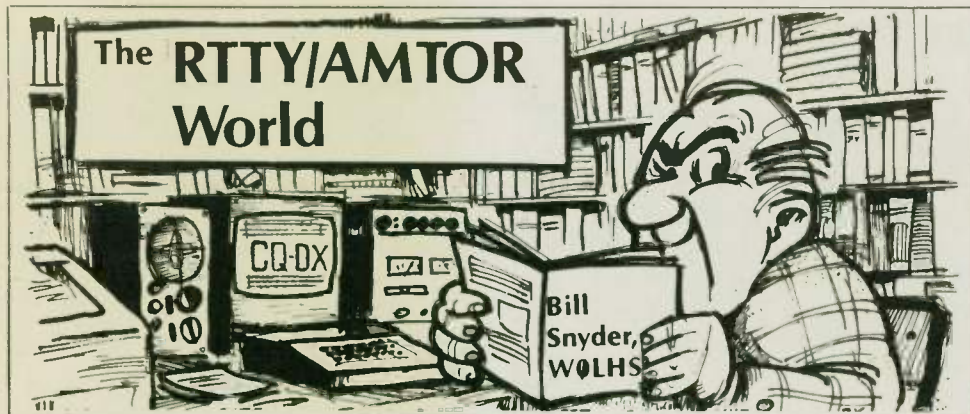
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Packet radio came into my life with a big bang, after riding along for a few months like a turtle. The bang happened the day I modified an AEA PKT-1 for high-frequency operation and set my transceiver dial to 14103.00. Almost immediately the screen filled with packet jargon, and my jaw dropped in amazement!

Early this year, John Gates of Advanced Electronics Applications, Inc. sent me a PKT-1 terminal node controller to use for a short test period. Well, the local hams who had indicated they would go packet on VHF failed to show up; so having a packet operation on 2 meters in North Dakota is like Robinson Crusoe playing tennis on his lonely island. There is no one on the other side to hit the ball back to you.

After wiring the PKT-1 to the serial port of a venerable SOL microcomputer and the audio and PTT lines to my Yaesu 726R VHF rig, I spent many hours reading the instruction manual and sending packets of RF to no one at all. I demonstrated my one-sided non-contacts to a number of hams in an effort to get them to go packet, but to no avail.

Next, Dale Cary, WD0AKO, and I put the packet lashup on Dale's OSCAR rig. There we hoped to make a few contacts, but our ignorance of packet and OSCAR-10 time schedules prevented this from happening.

Meanwhile I had been hearing, with growing regularity, a few buzzes of packet radio on 20 meters. Well, my CQ ("Curiosity Quotient") kept growing and I wanted to decode those buzzes I was hearing on 14103.

I would have tried 20 meters earlier, but in order to use the PKT-1 on HF you must make circuit modifications and recalibrate the unit. With nothing happening on VHF, I heated up the soldering iron and opened up the TNC box. The modifications are simple, merely changing two resistors and one capacitor. The

circuit board has provisions for mounting DIP sockets, so by mounting the components on a plug-in header, it is possible to make quick changes between HF and VHF. I opted for HF only, so I only changed the necessary components.

Recalibration of the unit requires a voltmeter or an oscilloscope, but most of it is done with a screwdriver and the built-in counter circuit. The process merely changes the shift of TNC modem from 1000 Hz to 200 Hz. The former shift is standard on VHF while the latter is used on HF. Keep in mind the AEA PKT-1 is a commercial adaptation of the Tucson board, which is no longer available from the Tucson Amateur Packet Radio Corporation — the prime-movers in packet radio.

When I finished the conversion, I hooked the TNC to my Sanyo 555-2 computer (using Copylink software) and my Kenwood TS-940 transceiver. I tuned the dial to 14103.00 and waited. In order to record the momentous event, I started the printer and opened a diskette file. The TNC software was set to monitor all signals, both in and out.

A few bursts of signals went by with no CRT activity. After each burst that did not produce anything on the screen, I retuned the 940 a minute amount. I was fishing. I do not have a tuning indicator for packet, so it was guesswork all the way. With the dial on 14103.01 it happened — a long burst went by and as soon as it stopped, the cursor galloped across the screen, leaving in its wake: "KF4JF-BEACON: Mail for: K4NTA KI4XO WB6YMH." It worked!

From then on, the screen and printer went crazy. Line after line of perfect, error-free printing went shooting across

the page. Then I began to realize — the packet unit does not print garbles; it waits until it's all perfect, and then spits it out at 300 baud.

I watched the printer hammering away for about an hour. Then I heard a CW ID on the frequency. It was Jack Whitaker, W5HEZ, a very good friend. Quickly I put the PKT-1 in the command mode and typed: "CONNECT W5HEZ." The 940 "on-air" light flashed, a short burst was heard on 940 signal monitor speaker, and the screen of the computer said: "\*\*\*\* CONNECTED TO W5HEZ."

What a thrill! I felt the same zing I had experienced back in 1933 when that ham in Kentucky came back to my CW call. The funny part of all this was I had talked to Jack on the telephone one hour earlier. We had discussed RTTY DX on the landline, unaware that both of us were trying HF packet!

It was not long before I had worked PY2BJO, LA6OCB, LA6VC, VE3OSN/VE8 (zone 2), ZF1GC and a host of USA stations. It was so much fun, I bought the PKT-1! Now I am busy trying to stir up packet activity with the VHF groups in our area, as I can see the value of packet communications.

Now for the bad news. If you watch HF packet for very long, you will realize that high-frequency packet needs management, common-sense and more than one frequency. It is rapidly becoming Mailbox City with a half-dozen mailbox systems hogging the frequency. They send beacon calls ad infinitum.

One feature of packet is that many stations can use the same frequency, but beacon announcements of mailbox traffic slow communications down to a point where you could copy a CW message in Olde English type with letters three feet high (using a half-inch paintbrush) faster than you could receive it on packet. The throughput is that slow!

One afternoon, while I was away from the shack, I left the packet lash-up writing all incoming traffic to a diskette. When I returned home I reviewed my monitoring efforts: all 94,000 bytes of stored transmissions. Most of that 94K was beacon announcements of mailbox traffic. I have a feeling this is going to turn off a lot of hams who venture into packet.

I took a printout of another afternoon's copy to our local ham club meeting. The members were amazed by the 100% accuracy of the copy, but many commented

on the page after page of redundant mailbox beacon print.

A CQ call on packet looks like this: "W0LHS\CQ:" and it takes only a fraction of a second to transmit. Monitoring can be selective; that is, only those stations you wish to monitor (up to 10) can be programmed into the computer, or you can specify ALL. There are many options to what is printed out on the screen.

Hank Oredson, W0RLI, seems to be the "guru" of packet mailbox systems. At least I gathered this from talking to Hank and other mailbox operators. I believe he wrote the software that does the trick.

So, if you are looking for new frontiers to conquer, I suggest you try packet radio. These are my first impressions. More about packet in future columns.

### The DX scene

If you are chasing DX on RTTY/AMTOR look for Lowell WA9PCI/9Q5 in Zaire. Lowell has been worked about 2100Z on 14090. He is a missionary-pilot-ragchewer as well as a ham, so you can find interesting things to chat about. When he found out I had been in Zaire when it was the Belgian Congo, we had a great ragchew. QSL via his Callbook address.

VE3OSN/VE8 is the only station on HF packet from above the Arctic Circle (450 miles from the North Pole and in Zone 2). He has special authorization to operate digital above 14100, the limit for Canadian stations. QSL via VE8RCS.

Yasutaka Nagata, JA1JDD, is every RTTY DXer's friend. Almost everyone knows Taka for he is very active on 20 meters. Recently Taka was featured on the cover of the Japanese CQ Ham Radio magazine. Taka writes a RTTY column for the same magazine and he and I have been comparing DX notes for many years, so I was really pleased to get a copy of the magazine, even if it is written in Japanese. It is a fantastic publication!

First, it is a beautifully printed magazine — about the size of the early QST format. The July issue had 520 pages (count 'em) of which about half were advertisements! It is fascinating to read — enough English appears to give you an idea of what the articles and ads are about. All call signs are in English as are many of the headlines, advertising heads and Heard/Worked listings.

The advertising shows many pieces of ham gear that are not sold in the USA: hand-helds, antennas, rotors, trans-

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Taka Nagata, JA1JDD, watches Miss Li — the only Chinese RTTY operator — operate SSB from BY1PK in China. Mr. Tong operates from the far position.



Taka Nagata, JA1JDD (second from left), poses with Chinese operators at BY1PK. Left to right: Mr. Tong, Taka, Mr. Wang, Mr. Sheng.

ceivers, etc. The editorial side featured columns on every facet of Amateur Radio, plus many color pictures of JARRL gatherings. I've had copies of the French, German and British ham radio magazines sent to me, but the Japanese book is far and above the best Amateur Radio magazine I have ever seen!

#### BY1PK on RTTY

Our friend Taka, besides being on the cover of *CQ Ham Radio*, spent nearly a month working in China for his employer. While there he had two opportunities to visit BY1PK on Saturdays. Here are some excerpts of Taka's recent letter:

"I found if I could speak Chinese, there would be no trouble if I visited there at any time. There are not too many people who can understand either English or Japanese. In my case, they looked for the man who could translate Japanese to Chinese. There are not many who are familiar with English; this is the reason they are mostly on CW and very few on SSB and RTTY. When I visited, there was only one girl, Miss Li, who could speak English. She was a student at the University and was very nice to master keyboard work when I taught her how to use the Tono 9000. Lately she is the only operator of RTTY from BY1PK.

"BY1PK has very good gear!!! Most of them were really new models. For example, HF transceivers were Yaesu FT-ONE and Kenwood TS-930. And of course, there were also new models of VHF and UHF rigs which were all made in Japan. And I heard these were all donations from the Japanese. I had a chance to talk with Tom Wong, VE7BC, in Peking. I was told he would go to western China to set up new Ham station, and he still needed some donations!!!

"BY1PK has also duty to educate Ham operators. BY1PK has dormitory for students and the station is on the 6th floor of this dormitory."

One of the interesting things about

Taka, is he has Collins radio gear and an Apple computer in his shack!

#### Eavesdroppings

"VERY GLAD TO MEET YOU THROUGH THE HERTZIAN WAVES." ... "I WAS A GAG WRITER IN A CHINESE COOKIE FACTORY." ... "LOBSTER AIN'T CHEAP HERE

EITHER." ... "AFTER I BOUGHT THAT NEW COMPUTER PROGRAM AND TRIED IT — I NAMED IT 'SHAFT-WARE!'" ... "HOW DID WEBSTER EVER WRITE A DICTIONARY WITHOUT A COMPUTER?" ... "WILL GIVE THE QRG TO THE LID WITH THE CQ MACHINE!" ... "SIGNAL 3 DB OVER



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PLATE XFMR: 3000 VAC @ 3.0 AMP CCS, 230 VAC Pri., 120 LBS.....	\$425.00
PLATE XFMR: 3500 VAC @ 1.0 AMP ICAS, 115/230 VAC Pri., 41 LBS.....	\$185.00
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#### Packet eavesdroppings

"I KNOW I AM CONNECTED TO YOUR PACKET, BUT I DON'T KNOW WHAT TO DO NEXT." ... "MY FIRST HACK-IT AT PACKET." ... "USING A MINI-QUART ANTENNA." ... "I AM VERY HAPPY WITH PACKET, IT IS INTERESTING." ... "EXPLAIN TO ME WHAT \*\*\*CONNECT REQUEST: KB7G MEANS." ... "BEEN ON VHF PACKET ONE YEAR - HF ONE DAY." ... "THE PKT-1 I FOUND IN DAYTON." ... "HOW DO I GET OUT OF THIS CONNECT? ... "THANKS AND TAKE SCARE."

As always, I enjoy hearing from you. If you are on HF packet, try leaving a message in my station. I leave it on 14103 quite frequently. I do not put it in the beacon mode, nor is it a real mailbox, but it will take a message. I tried it out with Jack Coffee, WD5ELJ, and it works.

73 from Bill Snyder, W0LHS, 1514 South 12th, Fargo, ND 58103. DIT DIT.

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Thanks, Peggy

Writing in 'Off the Air' (Worldradio, August 1985, page 19), Peggy Cummings, KY8Y, told how she has found handling traffic "one of the most interesting facets of Amateur Radio." Peggy is new to the traffic game, but those of us who have been in it longer tend to agree. Our only question would be about the title of her piece, "New Amateur Fun." It's fun, and it's Amateur Radio, but new? It has been around longer than the second R in ARRL.

But that's a matter of history. If you want to see for yourself what traffic handling is like, whether it's as great as Peggy says, try it yourself.

### Getting started

If you're on the air, you probably have all the equipment you need. You will find traffic handlers on CW, SSB, RTTY and FM. And it's a bit hard to conceive how an amateur could be "on the air" without being able to communicate in at least one of these modes. More likely, the problem areas will be how to find traffic handlers with whom to communicate, and how to go about communicating.

Probably the best way to answer the questions about when and where is to secure a copy of the ARRL *Net Directory*. You can get it by sending a 9" x 12" self-addressed envelope with 88 cents postage to ARRL, 225 Main St., Newington, CT 06111 (and be sure to include a note saying what you want!), or you can probably get yourself a copy without having to pay postage at the ARRL booth at a hamfest.

This is more than just a list of nets; it also goes a long way toward explaining the *how*, and contains much information useful to the beginning traffic handler.

Find a net that meets at a time and on a frequency convenient to you, and listen for the first few days; learn how they operate. Reading a book about it is not as good as practical experience. Then check in yourself. You will have heard enough stations check in after listening a few days to know how to do it.

Procedures vary slightly on different nets, but it's something like this: on voice, when net control asks for check-ins (often net control will specify that only certain stations are to check in; if you're

not among those called, wait until you are), you say something like, "This is K4ZN, Kilo Four Zulu November, no traffic." On CW, it's DE K4ZN QRU.

Net control should acknowledge your call. But that might not happen. You may have doubled with someone else, and net control acknowledges the other station or is unable to separate you. If that happens, try again. From this point on, you simply do what net control says.

You're still not a traffic handler, even though you check into several nets. There's one more step needed — actually handle traffic.

Unless you supply an outlet for traffic for which the net has no other outlet, it will probably be some time before traffic starts to come your way. Use the time to become comfortable as a net operator. But also, you can and should become an actual traffic handler by originating an occasional message.

You almost certainly know somebody outside your local telephone calling area — relative, friend or another amateur — and these people all have anniversaries. And there's no need to wait for an anniversary either. Try sending a message. It will be a big surprise for the addressee, and it may be as much a surprise to you when you learn that it made it to its destination and that it was such a pleasant surprise to your Aunt Susie to hear from you in this way.

Form? Don't worry too much about it. It's all told in the *Net Directory*. Or just ask anybody on the net to help you. No net that I know of has more help than it needs, so they are always glad to help if it looks like you might become a regular. Peggy agrees, "Every traffic handler that we have come in contact with has been so patient, understanding and helpful."

Really, putting your message in proper form is quite simple. Write down the address. Give the name, mailing address, include ZIP code, give the telephone number (area code is not necessary, but sometimes it helps if the rest of the address is garbled in handling). Write out the text of the message; try to keep it down to 25 words or so. Add a signature.

Then prepare the preamble. If it's your first message, it's NR 1. Follow this with R for Routine. Add your call sign. Count the number of words in the text (the *check*) and write that number after your call sign. Write your city and state and the date (month and day). That's all there is to it. You prepare the preamble last, but send it first, before the address. It won't take you long to get the hang of it, and then you have joined the ranks of traffic handlers.

So thanks, Peggy, for the plug. And it might be noted that there are two things she does not say, but are worth saying here. She is a woman and has an Extra Class license, and you will find both in the ranks of traffic handlers in a far larger percentage of the total than you will find in the general amateur population.

For some reason, YLs are especially attracted to traffic handling. For example, they represent about 4% of the general amateur population, but look at the BPL listing in August *QST*: at least five of the calls listed there (including Peggy's) out of the 26 total are women's. That's nearly five times what you would expect. And a large number of net managers are women, too.

Incidentally, I don't have any figures on this, but it seems to me that most of the women who handle traffic prefer CW. Perhaps because CW is sexless — it gives no indication whether a man or woman is sending it. One YL I know gives her name as Phil (for Phyllis). Maybe a lot of women feel — as a niece of mine put it — they like to associate with men, but do not like masculine attention. Any comment, ladies?

Women seem attracted to traffic handling. Is the same true of Extras? More likely it's the other way around: they got their Extra, at least the 20 wpm part of it, because of regular practice handling traffic on CW.

In other amateur operation on CW, we don't have to get 100% copy, and most of us just follow the general drift. Then too, much amateur ragchewing follows a predictable course; we know what's coming before it's sent. When traffic is being

passed, however, 100% accuracy is not the ideal to be aimed at; it is the minimum acceptable performance.

### Burnout

A letter recently received from Kurt Meyers, W8IQ, touches on the problem of overdoing it — a very real danger for all in Amateur Radio, and certainly for traffic handlers. Many of our nets are short-handed. This is particularly true of CW nets and of nets above section level in the National Traffic System.

In principle, NTS functions are distributed so that an operator has a function once a week. That means seven net controls and seven liaison stations a week for each net, plus about 75 Transcontinental Corps stations, or close to 300 just to handle the region and area nets, and probably more than that for the section nets.

We don't have that for many people, we never have had. They are out there, but they don't come forward. What happens? The nets continue to function, traffic gets moved, but who does it? The same ones who are always there, who take several slots a week, fill in for those who are absent, and volunteer to take the traffic that nobody else can handle. They are the backbone of the system, but how long can they go on?

Some come from two-ham families, and have no problems. But there are also a lot of ham-radio widows out there, and that's not so good. Duty to one's family comes first. And duty to one's health has priority too — enough sleep, exercise, a balanced diet. It's much better to find a pace that one can keep with moderation than it is to throw oneself wholesale into Amateur Radio and then be forced to quit entirely.

And don't let anybody try to make you feel guilty because you don't do more. Do what you can, and recognize your limitations. What we need is not that those now active take on more functions, but rather that more people become involved so that the functions can be shared more equitably. □

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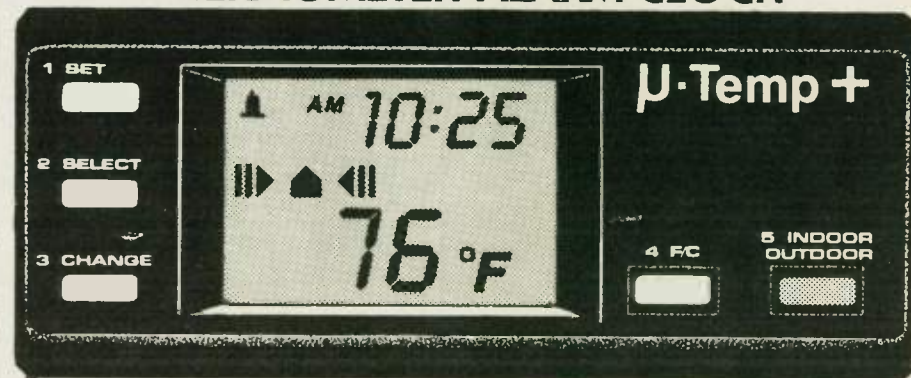
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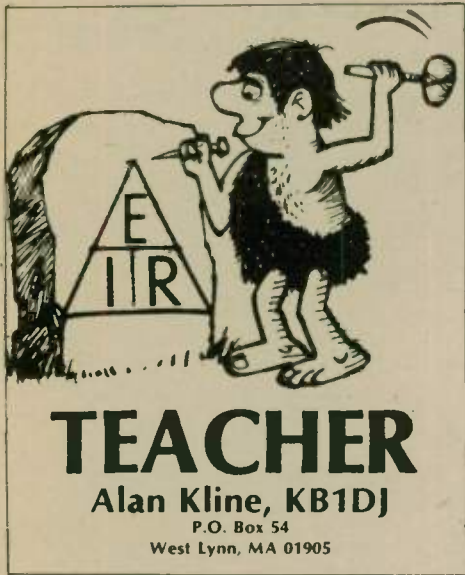
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## School stations — Part III

So far, in parts one and two, I have given my thoughts and experiences about teaching and organizing ham classes for kids in the public schools.

This part of the article is about the three high school club stations I helped organize. I will talk about what makes them work and what made one of them fail, for not all of my programs are successful.

### Station #1

Our first station was assembled at Marblehead High School in Marblehead, Massachusetts. Why there? Well, one of our regular adult class instructors — Dick Caldadrone, KA1NV — was the chairman of the guidance department there and he wanted to. That is reason enough. Another very active club member — Art Russell, W1VUO — was the chairman of the Industrial Arts department. Art wanted his electronics students to get into Amateur Radio, so Dick offered to teach a Novice class.

Both of these hams had arranged for us to use rooms in the high school at night for our other programs, so we wanted to give the school something back to show our appreciation. Teaching a Novice class in the high school was the natural answer.

Art had purchased a Heathkit HW-101 Transceiver for his senior electronics students to build as a class project. But budget limitations meant they could only buy the matching power supply, but no antenna or the needed accessories. The limited budget also meant no textbooks or CPOs, so our club provided them.

What we had here were some of the basic ingredients for a school club station — leadership, equipment, students and growth potential.

Dick and Art put up posters announcing the class, showed an ARRL movie both to the general student population and to the 10th, 11th and 12th grade students in the Industrial Arts classes. This PR must have worked, for 12 kids showed up the first day of the Novice class.

As predicted, two stuck out the course and got their Novice licenses. Sounded good so far, but those two students were seniors, so the program had a problem. Actually, a few more problems had arisen that we had little control of.

First, since the kids were seniors, we would have no student continuity to the next year. The second year's class would be starting off from scratch.

Second, Art W1VUO decided to retire. That meant his replacement would have to be indoctrinated into ham radio, as he was not already a ham.

Third, Dick KA1NV's after school-time work had increased threefold. He would be unable to make a second attempt at teaching the class.

And finally, it took the senior students all year of their free time to build the HW-101. This meant the kids didn't get to use it till the very end of the school year. All of these problems added up to the end of the program, but we learned an immense amount of info about having another class at another high school.

I might add that the adults involved in the program were very disappointed it had to end this way.

### Station #2

High school club station #2 is located at Danvers High School in Danvers, Massachusetts. I consider it a modest success compared to our Marblehead attempts.

It is located in a small office in a well-traveled corridor of the building. It is manned by our senior citizen club members from 9:00 a.m. to 2:00 p.m., two or three days a week. Their job is to operate the station so that the kids who walk by the room can see ham radio in action. Their other function is to act as Elmers to the few high school students who are licensed.

The few who have their Tech or General tickets got them at our Thursday evening classes. If and when the demand is there, they are all prepared to teach an after-school Novice class.

Station equipment is simple. The main rig is an Atlas 210X with their console power supply, a Morgain Dipole and a 2M Ringo. A borrowed VIC 64 with a CW program feeds video output to a color TV monitor on loan from the AV department.

Station operators are encouraged to bring their own 2-meter rigs, RTTY or SSTV gear to demonstrate to the passing students. On Thursday evenings, the shack is manned and open for our adult evening code and theory classes.

We have excellent leadership, as the assistant head of the audio visual department — Jon Hannaford, K1SPI — teaches the radio/TV production courses and repairs all the AV department's gear. He acts as the station trustee and liaison to the school administration.

The potential growth factor is very promising. This past season, two juniors got their licenses during our evening classes, while a junior high student upgraded to General as well. With these kids, we have a base to start from and build up a ham club. It will be these kids' responsibility to help us build the club by talking up Amateur Radio to their friends.

### Station #3

Station #3 is as promising as our Danvers station, and it has the greatest potential for growth. It is located at Pentucket Regional Junior High School, where our teacher and liaison Larry Cochran, KA1EFN. Larry teaches 8th and 9th grade electronics.

Over four years ago, Larry had the idea to introduce ham radio into his regular classroom lessons. It didn't take long before there was a need for an after-school Novice class to be formed. He had the similar problems of most of our other programs — lack of available funds for starting an extracurricular program. He asked our ham club for financial help and support.

He has had two club stations in four years of running code and theory classes. The first was a Heathkit TX-1 transmitter and a Hallicrafters SX-101 receiver. The current station is a Heathkit SB102 transceiver. The antenna is a Hygain vertical, homemade trap dipole and a 2M Ringo.

His school district's budget is so tight, he must rely upon our club to donate all of his supplies. That includes rigs, antennas, textbooks, CPOs, tapes, SWR meters and even the coax. I feel it is all worthwhile, for we have good leadership, a workable station and potential student growth. In four years, six kids have gotten their licenses.

As I am not a professional educator, I have asked Larry to evaluate all of our programs to figure out how we can get more kids involved in our ham radio/high school programs. He has formed some definite opinions and observations about the kids in our part of the country as to why they aren't enthused by Amateur Radio.

The school districts where we have our

high school stations are middle to upper middle class towns. The parents are working at white collar, high tech jobs. You might think the kids would be interested in ham radio and electronics, but they are not.

He suggests that many of the 8th and 9th graders of his community have little respect for the property of others, act like they aren't disciplined at home, and they all expect something for nothing. Yes, they do enjoy working with computers, but they prefer playing the games on them, not learning to program them.

His final observation is about the learning of Morse code. The kids don't object to learning the code at the required minimum of 5 wpm, but — and they may have a good point — if the computer can send code at 20 wpm for us, why learn it? Let the computer do the work.

In spite of most of the kids' attitudes about ham radio, it still flourishes. The kids who learn to enjoy it, study the hardest and upgrade the quickest. The rest have at least learned about ham radio and become better educated.

I know many other school programs are much more successful than ours, just by the numbers of kids they licensed, but at least we have made a start in our communities. □

## Disaster Awareness Emergency Checklist

Is your emergency equipment in order and ready to go?

Is your home antenna system secured against falling or pendulum effects during an earthquake?

Is your base equipment secured against earthquake movement?

Are your rack and panel units secured top and bottom to a nearby wall?

Do you have an emergency box for your car that contains food, water, clothing, for several days?

Is your emergency generator for the base station and home ready, with fuel?

Do you have overnight personal supplies ready? (soap, TP, sleeping bag, etc.)

Supply of flashlights? (chemical stick lights are new)

Fire extinguisher in car?

Have you filled your gas tank? You may be away from a station for a while.

Do you have a scanner in your car or one available?

Do you have a book of local maps in the car? —LARK □

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It might be September or October when you are reading this, but I'm writing this on the last day of July. At HANDI-HAM headquarters we are doing the usual things — working with new students as they enroll in the HANDI-HAM System, welcoming our new HANDI-HAM Manager, Keith Graham, K0HJC, and preparing for the next HANDI-HAM Radio Camp which is taking place the end of August.

When Bruce Humphrys, K0MR, who has been the Courage HANDI-HAM Director since 1974 (and former writer of this column), was promoted to Director of Rehabilitation Technology here at Courage Center, that left the manager position available. The System was pleased to hire Keith Graham the beginning of July. He comes with excellent credentials and will be a very valuable addition to headquarters staff. One of the delightful things about having a new person on board is the opportunity to explain how things work and in so doing, reminisce.

Recently, Bruce K0HR, Sister Alverna WA0SGJ, Steve Gernbacher and I sat in the office and told Keith all of the most memorable stories of the past Radio Camps. I thought that sharing a few of these with readers might be enjoyable and really let you know the flavor of what can happen when you put hams from around the country together for a week of intensive study.

Remember when we almost had an Amateur Radio station aboard a submarine? Oh yes, that was the year we tried having a course called "Boat Pack" in which campers who had signed up for that seminar were allowed to board a pontoon boat and sail the seas of Courage North Camp in Northern Minnesota (really just Lake George, which is quite placid) with a ham station on board.

The boat was fully loaded with about 12 campers and several staff members, as well as about half a dozen faculty. Once everyone was boarded with life preservers secured, there was a lecture on how operating on board a maritime vessel differed from operating from one's shack.

Of special interest was the antenna and the way in which signals were improved with ground provided by the water. I was back at the base station where there was an 80-meter rig and a 2-meter station ready to chat with the maritime folks if they had any news for the rest of the campers who were back on shore. We were amiably chatting away when there was a long pause, followed by the statement from one of the campers who was

working on his Advanced ticket. "This is W0EQO (the camp's call sign) submarine mobile." I responded laughingly with, "I thought you were above water."

What had happened was that when the boat was loaded with campers, those persons in electric wheelchairs were accidentally placed in such a way that too much weight was in one area. When the driver started the boat off with a full steam, one of the pontoons went under. Everyone was perfectly safe except for one person who got wet shoes and the boat was hurriedly brought back for relocation of its passengers to more advantageous positions.

Or how about the things people have done to Wayne Keeney. Wayne Keeney,

N6CCU, has been the instructor of those persons in the Advanced class for the last several years. He loves to teach, and his skills as an instructor are unsurpassed by anyone else I've ever met. He can work math faster in his head than the electric calculators (we have timed him and had races), and we like to call him "The General" because he rules with an iron hand. He is currently curriculum coordinator for camp.

Being totally blind doesn't stop him from anything. One thing which he does like to do is sleep in the morning as long as he can and still make it for breakfast. So several students who were considerably younger in age than Wayne, and who had "suffered" through a week of his class, sneaked into his cabin at the bright hour of 6:00 a.m., and with directions from the one sighted faculty person who was navigator, picked up Wayne — bed and all — and carried him off into the woods. Needless to say, everyone has been chuckling about that one ever since.

Most memorable was the farewell party held at last summer's radio camp. At each camp session on the last night after exams have been taken, when students have worked very hard for a week, there is a wonderful party put on by the counselors who have been giving personal care to students at the camp. The counselors are young college-age people trained in working with handicapped but are not necessarily hams. There are balloons, ice cream sundaes, singing and crazy radio camp awards such as the ham sandwich which is given to the counselor who is most interested in Amateur Radio.

Well, anyway, at the last party there was also an award given to Bruce K0HR for his long years of HANDI-HAM service. It was the last radio camp at which he would be director. While one of the faculty was giving him lavish compliments, Bruce's attention was drawn to three campers who gradually moved to position themselves in front of him. Although each of them was blind, they were loaded down with water balloons which were aimed at him. As he moved to try and get out of their way a sighted faculty member tossed a whipped cream pie at him from another direction and it hit its target dead center! It was topped off with a full garbage can of water which came from behind. Bruce was appropriately dressed in his usual radio camp last night crazy party attire of sneakers, black shorts and a magnificent black and silver tux T-shirt. The one thing which was an unknown surprise to everyone was that the whipped cream pie was sour.

These crazy experiences, along with serious study, and meaningful friendships, make Radio Camp uniquely special. □

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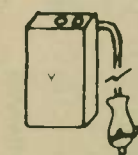


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# AERIALS

"When the reactance is cancelled out, and the antenna system is matched, all the power delivered by the transmitter, (minus insignificant transmission line losses) will be radiated."

If you will heed those words and act accordingly, you will certainly have received good value from the few dollars you spend for your Worldradio.

There was a bit of communication to the Worldradio offices after Kurt mentioned the Budwig connector. Seems many people had never heard of it before, ever seen one or knew how to obtain one. So, here is the address: P.O. Box 829, Ramona, CA 92065. Cost is \$5.95 postpaid. And you can get two end insulators for \$1.25 the pair.

We've been asked on many occasions to delve into the noise bridge. Such devices are made by Palomar Engineers and MFJ. Since we have the Palomar one, we shall quote from their literature, which seems to tell the story as well as anyone.

The Palomar Engineers R-X Noise Bridge tells you if your antenna is resonant or not and, if it is not, whether it is too long or too short. All this in one measurement reading! There is no faster or easier way to check your antenna.

It works with dipoles, inverted Vees, quads, Yagi beams, multi-band trap dipoles and verticals. With trap antennas you can check resistance and reactance on each band. This makes it easy to adjust each section so that the antenna works

right on every band. It saves hours of fiddling around because the very first reading you take tells you exactly where you are. Why work in the dark? Use the instrument that puts some light on the situation.

It works better than a dip oscillator because the frequency of measurement is set by your receiver, which is calibrated a lot better than a dip oscillator and is more stable. And the noise bridge tells you the feedpoint resistance, which a dipper can't do. You can buy a Palomar noise bridge all built, calibrated and ready to go for less than a dipper kit!

It's easy to use! Just connect the noise bridge to the antenna feedpoint (at the center insulator of your dipole, at the base of your trap vertical, etc.). Then connect the noise bridge to your receiver with a coax line. Tune the receiver to the frequency at which you want to measure the antenna and turn on the noise bridge. You'll hear a loud noise in the receiver.

Now adjust the two knobs on the noise bridge for a null — that is, a noise minimum. Adjust the knobs carefully because the null is very sharp. Now read the knobs: The "R" knob reads the antenna feedpoint resistance directly in ohms. No formulas or charts needed. The "X" knob reads reactance. If it points straight up the reactance is zero, and the antenna is resonant at this frequency. It points to the Xc side of the dial, the antenna is too short. If the knob points to X<sub>L</sub> side of the dial, the antenna is too long. So, in just one measurement reading you know if your antenna is resonant or not and, if it is not, which way it is off! If it's off, just change the length as indicated and take another reading. In short order you'll have your antenna tuned.

**Trap Antennas.** When adjusting a multi-band trap antenna, always start with the highest frequency band. Set your receiver on frequency and connect and adjust the noise bridge as described above. If the antenna is off, adjust the high frequency section to get resonance. In a vertical trap antenna, this is the bottom section. In a horizontal trap antenna, it is the inner section. After the antenna is properly tuned for this band, go to the next lower frequency band. Check it for resonance in the same way and adjust as necessary. Then go to the next lower frequency band. There is no faster or easier way to adjust trap antennas than by using the Palomar R-X Noise Bridge. Once you use it you'll wonder how you ever got along without it.

Measures coax cable too! Today's coaxial cables vary a lot in velocity factor. If you cut a 1/4-wave or 1/2-wavelength of cable using formulas alone, you can get in deep trouble. Always check with a Palomar R-X Noise Bridge to be sure you have a true electrical 1/4-wave or 1/2-wave. It's easy to do:

Tune your receiver to frequency. Put a short on the noise bridge "Unknown" terminal and adjust for a null. This will be at R=0 and X=0. Leave the noise bridge controls at this setting. Now connect your cable to the unknown terminal. If it's a 1/2-wave cable, short the far end. If it's a 1/4-

wave cable, leave the far end open. You should get a null.

Check by tuning the receiver. If the null is at a higher frequency, the cable is too short. If the null is at a lower frequency, the cable is too long. It's as easy and simple as that to make sure your cable is the right length. And it's accurate too — on 20 meters you can tell the frequency of the null to ±5 kHz or better.

Save that final. If you use an antenna tuner you can use the noise bridge to set it without turning on your transmitter. Just connect the noise bridge to the transmitter side of the tuner. Set your receiver on frequency. Set the noise bridge knobs at X=0 and R=50. Tune the tuner for a noise null. Now the tuner is 50 ohms resistive — just what your transmitter wants to see.

**CAUTION:** Take the noise bridge out of the line before transmitting. If you have a dummy load you can tune your transmitter into it. Then connect the transmitter to the tuner, and you are all tuned up and ready to transmit without ever having been on the air. This means you don't create any interference while you tune up. And it's a lot easier on your transmitter finals. More damage is done to finals in tune-up than in many many hours of operating. Try a Palomar Noise Bridge — you'll like it.

**Test a balun.** How do you tell if a balun is good? Not with an ohmmeter, because most baluns have all terminals connected together at DC; you read a short whether the balun is good or not. Instead, connect your noise bridge to the coax fitting of the balun. Then, if it is a 1:1 balun, put a 50 ohm resistor across the output terminals. If it is a 4:1 balun, put a 200 ohm resistor across the output terminals. A quarter or half-watt carbon resistor will do. Now turn on the noise bridge and adjust it for null. You should read X=0 and R=50.

Check tuned circuits too! To bring that tuned trap or receiver/transmitter tuned circuit on to frequency is easy with the Palomar R-X Noise Bridge. Tune your receiver to frequency. Put a short on the noise bridge "Unknown" terminal and adjust for null. This will be at X=0 and R=0. Now put your series tuned circuit across the "Unknown" terminal and adjust it for a null. Now it's tuned to frequency!

If you're checking a parallel tuned circuit, either open it up temporarily and connect it to the noise bridge or wrap a one-turn link around its coil and connect the link to the noise bridge. Then adjust the tuned circuit for null.

(Kurt will return next month and poke a stick in the eye of those who perpetuate the myth of a ground rod having any significant effect.)

## Spider Antennas<sup>TM</sup> and Adapters

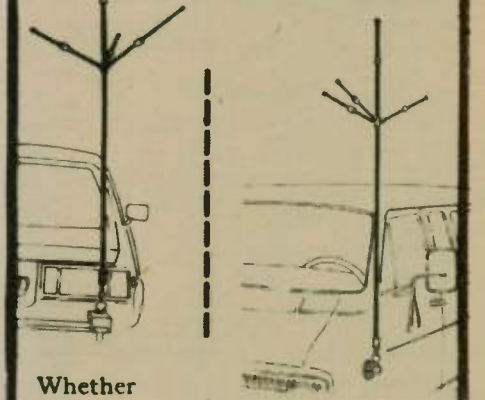
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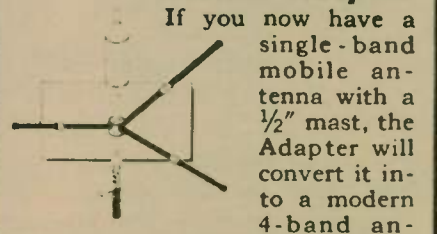
As you drive along the road, a Spider<sup>TM</sup> Antenna on your vehicle immediately marks you as a *Mobile Amateur Radio Operator*—one of those people who are always on hand when emergency communications are urgently needed.

### The Most Convenient Antenna for Mobile Work



Whether you are driving a full-size van or a compact car, you can't beat the Spider<sup>TM</sup> for convenience. Once it is tuned for 10, 15, 20 and 40 (or 75) meters, you just switch from band to band on the transceiver—the antenna follows by itself.

### A Truly Practical Antenna Adapter



If you now have a single-band mobile antenna with a 1/2" mast, the Adapter will convert it into a modern 4-band antenna. Complete with 10, 15 and 20 meter resonators—use your present 40 or 75 meter coil for the fourth band.

### Now a 75 Meter Resonator

In response to requests for 75 meter operation from many Spider<sup>TM</sup> users, we now have a 75 meter resonator available for immediate shipment.

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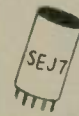
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clude a dupe sheet for entries with more than 200 QSOs. Each entry must include a signed statement that the decision of the Contest Committee will be accepted as final. No logs can be returned. Results of the QSO Party will be submitted to all usual amateur periodicals for publication.

Log sheets and summary sheets are available for an SASE. Log sheets and summary sheets must be postmarked no later than 12 November 1985 and sent to: Boeing Employees' Amateur Radio Society of Wichita, c/o Mike Thornton, WA0TAH, P.O. Box 16534, Wichita, KS 67216.

## Illinois QSO Party

This year's contest — sponsored by the Radio Amateur Megacycle Society — has a new date, a new seven-hour length and the addition of club/team competition. Also, Illinois stations may now work each other for county credit.

The QSO party starts at 1800Z, Sunday, 06 October, and ends at 0100Z, Monday, 07 October.

Suggested frequencies: 3550, 7050 and 14050 for CW; 3890, 7290 and 14290 for phone. Other bands may also be used.

Exchange: Illinois stations give RST and county; others give RST and state, province or country.

Scoring: Count 1 pt. per phone QSO, 2 pts. per CW QSO. No repeater QSOs. Stations may be worked once per band and mode, and once per band/mode/county for IL mobile stations. Illinois stations multiply points by sum of states, IL counties, VE provinces, and a maximum of five DX countries. Count additional DX for points but not multipliers. All others multiply points by number of IL counties worked.

Illinois mobiles may add 200 pts. to final score for each county from which 10 or more QSOs were made. All stations may earn one extra multiplier for every eight QSOs made with the same Illinois county.

Awards: Stations will qualify for certificates in the following categories:

- 10 highest scores, Illinois fixed station
- 5 highest scores, Illinois mobile station
- Highest score in each state, province and country
- Highest club/team aggregate score

Logs: Entrants shall submit a log containing GMT, call, RST, state or province, IL county, band and mode. Circle new multipliers as worked. IL mobiles must indicate county changes in log. Any station with over 100 QSOs must submit a dupe sheet. All stations must submit a summary sheet.

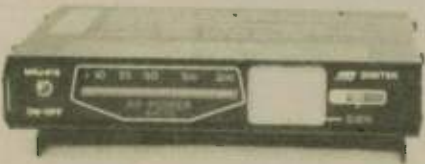
Entries must be postmarked by 01 November 1985. Mail to RAMS, c/o Joe LeKostaj, WB9GOJ, 9134 Ewing Ave., Evanston, IL 60203.

### Illinois counties

ADAMS	HARDIN	MORGAN
ALEXANDER	HENDERSON	MOULTRIE
BOND	HENRY	OGLE
BOONE	BROOKS	PERIA
BROWN	JACKSON	PERRY
BUREAU	JASPER	PIATT
CALHOUN	JEFFERSON	PIKE
CARROLL	JERSEY	POPE
CASS	JO DAVIESS	PULASKI
CHAMPAIGN	JOHNSON	PUTNAM
CHRISTIAN	KANE	RANDOLPH
CLARK	KANKAKEE	RICHLAND
CLAY	KENDALL	ROCK ISLAND
CLINTON	KNOX	SALINE
COLES	LA SALLE	SANGAMON
COOK	LAKE	SCHUYLER
CRAWFORD	LAWRENCE	SCOTT
CUMBERLAND	LEE	SHELBY
DE KALB	LIVINGSTON	ST CLAIR
DE WITT	LOGAN	STARK
DOUGLAS	MACON	STEPHENSON
DU PAGE	MACOUPIN	TAZEWELL
EDGAR	MADISON	UNION
EDWARDS	MARION	VERMILION
EFFINGHAM	MARSHALL	WABASH
FAYETTE	MASSON	WARREN
FORD	MASSAC	WASHINGTON
FRANKLIN	MC DONOUGH	WAYNE
FULTON	MC HENRY	WHITE
GALLATIN	MC LEAN	WHITESIDE
GREENE	MENARD	WILL
GRUNDY	MERCER	WILLIAMSON
HAMILTON	MONROE	WINNEBAGO
HANCOCK	MONTGOMERY	WOODFORD



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



## Digital SWR/wattmeter

MFJ Enterprises, Inc. has a new MFJ-818 — an automatic, digital SWR/Wattmeter. This SWR/Wattmeter from MFJ is unique in several ways. First, it is digital, with easy-to-read  $\frac{1}{2}$ " high, bright-orange digits on the SWR display. But more importantly, this SWR/Wattmeter is *automatic*. It eliminates three steps in reading SWR 1:1 to 1:9.9 directly and instantaneously. There is no need to adjust the SWR set knob!

The MFJ-818 reads up to 200 watts RF output on its LED bargraph display. The 12-bar LED display indicates the "On Air" power level instantly and correctly to read instantaneous peak power. The unit features a tri-color indicator that lights up to tell of the antenna matching condition — "green" for good, "yellow" for not very good, and "red" for a mismatched condition.

Despite all the features packed into this model, it measures only  $5\frac{1}{2}$ "  $\times$   $4\frac{1}{4}$ "  $\times$  1" and retails for only \$89.95 each. Like all MFJ products, the MFJ-818 carries a one-year unconditional warranty. In addition, if you order directly from MFJ, you get a 30-day money back guarantee. If not completely delighted, send the product back within 30 days for a full refund (less shipping).

Orders for this modern SWR/Wattmeter can be charged to your VISA or MasterCard account if you wish to order over the phone. Just call (800) 647-1800 toll free or write to: MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762.

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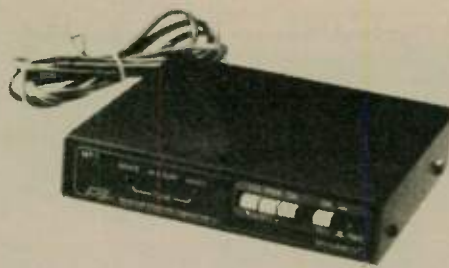
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Egbert ][+ = \$69.95 includes program, backup & documentation. USA Residents add \$2.50 for shipping. All others add \$6.00. Ca. Res. add 6% sales tax.

**INCLUDE CALL SIGN WITH ORDER!**



## Micropatch

The Micropatch Model MP-1 Computer Interface, manufactured by Advanced Electronic Applications, is a complete modem unit for Morse, Baudot, ASCII and AMTOR use. It



## ICOM receiver

For monitoring all Amateur Radio frequencies, ICOM introduces the IC-R7000 25 MHz-2000 MHz continuous coverage receiver. The IC-R7000 also covers aircraft, marine, government, emergency services and television bands . . . all for a remarkably low price of \$899 suggested list.

*IC-R7000 features include:* 25-2000 MHz (specifications guaranteed from 25-1300 MHz); 99 memory channels; Direct keyboard frequency access or main tuning knob access; Easy to operate; FM/AM/SSB modes;

*Scanning:* memory, mode and programmable or priority; Adjustable scanning speed; Narrow/wide filter selection.

*Five tuning speeds:* 0.1, 1.0, 5, 10, 12.5 or 25 kHz; Fluorescent display with dimmer switch.

*Convenient size:*  $4\frac{3}{4}$ "H  $\times$   $11\frac{1}{4}$ "W  $\times$   $10\frac{1}{4}$ "D; Dial lock; Noise blanker; S-meter; Attenuator; Optional RC-12 infrared remote controller; Optional voice synthesizer.

The IC-R7000 will be available in October 1985. For more information, contact ICOM America, Inc., P.O. Box C-90029, Bellevue, WA 98009-9029; (206) 454-8155.

## Stop Scan

WHEN THE SQUELCH BREAKS, THE SCAN STOPS! SCAN RESUMES AFTER A 1 TO 9 SECOND DELAY. AUTOMATIC! INTERNAL! SQUELCH ACTIVATED! NO MODS! SCAN LIKE A POLICE SCANNER WITH A JABCO STOP SCAN! **New lower prices!**

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connects a communications transceiver with a computer and appropriate software for operating CW, Baudot, ASCII and AMTOR. The program is not contained in the MP-1, allowing you to use the MP-1 with any computer for which you can obtain software.

Specifications include: easy hookup; automatic threshold correction; multi-stage Chebyshev filters; triple LED tuning indicator; FSK or AFSK output; positive PTT; plus/minus CW keying; 12 VDC operation; 2125 Hz mark; 750-900 Hz CW; 2295, 2550 (or 2975) Hz space.

The Micropatch Computer Interface measures  $1\frac{1}{2}$ "  $\times$  7"  $\times$  6" and weighs 18 oz.

For more information, contact AEA, Inc., P.O. Box C-2160, Lynnwood, WA 98036; (206) 775-7373.

## R-X Noise Bridge



- Learn the truth about your antenna.
- Find its resonant frequency.
- Adjust it to your operating frequency quickly and easily.

If there is one place in your station where you cannot risk uncertain results it is in your antenna

The Palomar Engineers R-X Noise Bridge tells you if your antenna is resonant or not and, if it is not, whether it is too long or too short. All this in one measurement reading. And it works just as well with ham-band-only receivers as with general coverage equipment because it gives perfect null readings even when the antenna is not resonant. It gives resistance and reactance readings on dipoles, inverted Vees, quads, beams, multiband trap dipoles and verticals. No station is complete without this up-to-date instrument.

Why work in the dark? Your SWR meter or your resistance noise bridge tells only half the story. Get the instrument that really works, the Palomar Engineers R-X Noise Bridge. Use it to check your antennas from 1 to 100 MHz. And use it in your shack to adjust resonant frequencies of both series and parallel tuned circuits. Works better than a dip meter and costs a lot less.

The price is \$59.95 in the U.S. and Canada. Add \$4.00 shipping/handling. California residents add sales tax.



Send for FREE catalog describing the R-X Noise Bridge and our complete line of SWR Meters, Preamplifiers, Toroids, Baluns, Tuners, VLF Converters, Loop Antennas and Keyers.

## Palomar Engineers

Box 455, Escondido, CA 92025  
Phone: (619) 747-3343

Contact Worldradio for hamfest prizes.



## Deluxe Versa Tuner

MFJ Enterprises, Inc. announces the new MFJ-949C Deluxe Versa Tuner. The 949C is a completely new design and has significant improvements over the 949B. This product has a cross-needle meter that reads forward power, reflected power, and SWR simultaneously in either 300 or 30 watts for quick, efficient operation. No SWR sensitivity adjustment is needed. Also, the look of the tuner has been upgraded to a new, classy-looking brushed-aluminum enclosure.

The MFJ-949C provides maximum power transfer from your transmitter to nearly any antenna: it can handle up to 300 watts RF output from the transmitter from 160 through 10 meters. A large efficient airwound inductor (3 inches in diameter) gives plenty of matching range and less losses for more watts out.

The 6-position antenna switch allows you to select 2 coax line direct or through the tuner, random wire or balance line and dummy load. For connection to balanced lines, a 1:4 balun is built into this unit.

The MFJ-949C also includes a 50 ohm dummy load for easy transmitter tuning, 1000



volt capacitors, and SO-239 connectors and binding posts for balanced line, random wire and ground.

Yet this tuner measures only 10" x 3" x 7" and can be used with any transmitter and antenna, home or mobile.

Available now, the MFJ 949C retails for \$149.95 each plus \$5 shipping and handling if ordered direct. Call (800) 647-1800 or write to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762. Or, you can save shipping and handling charges by buying from one of MFJ's dealers located nationwide.

All MFJ products come with an unconditional one-year warranty, and items bought directly from MFJ have an additional 30-day guarantee. If not completely happy with your product, return it within 30 days for a full refund minus the shipping and handling charge.



## New Callbook concept

Announcing the biggest change in its 65-year history, Radio Amateur Callbook proudly presents three new publications for 1986. The North American Callbook, the International Callbook and the Callbook Supplement will provide current QSL information for over 880,000 radio amateurs throughout the world.

To be published on 01 December 1985, the new 1986 North American Callbook lists the licensed amateurs in all countries in North America plus those in Hawaii and U.S. possessions. Not just a reprint of government licensing records, this listing information is carefully screened and corrected by its editorial staff to ensure the utmost accuracy. Also featured are the Callbook "extras": international postal information, worldwide QSL bureaus, census of radio amateurs around the world, and much more.

Also published on 01 December, the International Callbook lists the calls, names and address information for licensed amateurs in all countries outside North America. Fully updated by the Callbook's editorial staff using information from official sources throughout the world, the International Callbook's coverage includes Europe, Asia, Africa, South America and the Pacific area (exclusive of Hawaii and U.S. possessions).

The 1986 Callbook Supplement is a whole new concept in Callbook updates. To be published 01 June, the new Supplement will list the combined activity in both the North American Callbook and the International Callbook for the preceding six months. One Supplement, available from your local dealer of the publisher, will bring thousands of new licenses, address changes and "Then and Now" call changes from countries around the world.

For additional information or literature, contact the publisher, Radio Amateur Callbook, Inc., 925 Sherwood Drive, Box 247, Lake Bluff, IL 60044.

## EIMAC triode

Varian EIMAC has developed a new compact high-mu, ceramic-to-metal power triode designed for use in HF radio transmitters, RF amplifiers for plasma generators, and other linear amplifiers.

The EIMAC 3CX1200A7 power triode was developed by Varian EIMAC in Salt Lake City, Utah to take advantage of the new FCC regulations permitting Amateur Radio power output of up to 1500 watts PEP.

The 3CX1200A7's small size permits simple installation into existing radio cabinets specifically those using a pair of EIMAC 3-500Z triodes. Although electrically different, the EIMAC 3CX1200A7 and 3-500Z triodes share similar features such as identical tube base design and corresponding sockets.

The ceramic-to-metal design makes the EIMAC 3CX1200A7 more rugged than the triodes that were previously available for operation up to 110 MHz.

Intended to serve as a zero-bias Class AB2 amplifier for cathode driven circuits, the EIMAC 2CX1200A7 delivers a power gain of up to 20X's. The 3CX1200A7 is forced-air cooled rated at an anode dissipation of 1200 watts 30 cfm at 0.5 inches of water.

For additional information and literature, contact: Varian EIMAC, 1678 South Pioneer Rd., Salt Lake City, UT 84104; (801) 972-5000.

## The Complete Novice

Gordon West at Radio School, Inc. simply calls it "The Complete Novice." Everything in code and theory study material is packaged in one large, clear vinyl, hand bag for the beginner to successfully pass the Novice test.

"No longer will students need to cherry pick study materials to prepare for their Novice licenses — we include everything in our package to save them time, money and frustration," comments Gordon West, national radio columnist and noted Amateur Radio instructor.

"The Complete Novice" contains the following study materials:

- 4-set stereo code learning tapes
- 4-set vinyl cassette tape holder
- 2-set stereo Novice class theory cassettes
- Vinyl cassette tape holder
- ARRL "Tune in the World" Novice theory book
- ARRL FCC Rule Book
- Premium brass telegraph key
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- Instructions for proper code sending
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- FCC Form 610 plus VEC Examiner lists
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- Test instructions to the Volunteer Examiner

"After teaching 3,000 hams through our

local college system, we know exactly what our students need to keep their interest up in preparing for their Novice test as well as giving them everything they will need to make the grade — and we even include a sealed package for any General Class ham, 18 years of age or older, who will give the actual Novice exam." comments Gordon West, WB6NOA.

All instructions to the students are found on the exclusive Radio School stereo code and theory tapes. These stereo tapes may also be played on monaural cassette players. All cassettes are the standard 1½-hour-long style and will fit in any type of standard portable cassette player, as well as in mobile and home cassette deck equipment. When played in stereo, the voice and code track channels may be completely separated for additional study.

All theory books reflect updated Novice class questions and answers. ARRL books have been chosen exclusively because of their excellence and constant revisions.

"League books coupled with our Radio School code tapes give the prospective Amateur Radio student the ultimate in test preparation as well as good general knowledge about the ham radio service and proper ham radio operating. They can see what they are getting by simply inspecting the contents within the clear-vinyl package," adds West.

See "The Complete Novice" at your local ham radio store or order direct from Radio School, Inc., 2414 College Drive, Costa Mesa, CA 92626. The price is \$49.95 plus \$5 for shipping and handling — a dramatic savings over buying this material separately.

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## Heath patch

A unique phone patch has been introduced by the Heath Company. The HD-1515 Phone Patch kit employs a unique design and special speech transmission circuits to transfer audio signals between a telephone line and two-way radio equipment.

New active circuitry uses automatic gain control to help compensate for the varying attenuation introduced by different line lengths or loop distance on the external phone circuit. The integrated active speech and transmission circuit also allows the Phone Patch to be directly connected to the phone line, thereby eliminating conventional hybrid transformers that convert 4-wires to 2-wires.

A high degree of electrical isolation from the radio equipment makes the Heathkit Phone Patch ideal for voice-operated installations. And the transmission can be monitored on the phone line. An 8-pole filter in the input circuit makes the Patch compatible with all subscriber loop-frequency voice standards as prescribed by the FCC.

The Phone Patch obtains power directly from the phone line in most installations. An internal battery circuit may be used where the phone line exhibits a very low-voltage condition. The HD-1515 measures 1 3/4" H x 5 3/4" W x 3 3/4" D and weighs 12.8 ounces.

The HD-1515 Phone Patch is just one of many Amateur Radio products offered in the new Heathkit Catalog. To receive this colorful catalog free of charge, write Heath Company, Dept. 150-575, Benton Harbor, MI 49022. In Canada, write Heath Company, 1020 Islington Avenue, Dept. 3100, Toronto, Ontario, M8Z3, CANADA. Free catalogs are also available at over 70 Heath/Zenith Computers & Electronics Centers in the United States and Canada. □



## Sloper antennas

Sultronics Amateur Radio announces the introduction of the "second generation" of their highly acclaimed compact HF, Sloper antennas for the 160-80-40-meter bands. Featured are two models: the SS-2A Duoband Sloper which covers 80 and 40 meters, and is but 45 feet long. The SS-3A Triband Sloper covers the 160-80-40-meter bands and is but 60 feet long.

Both models feature standard 50 ohm coaxial feed and "no trap" construction. Only the best in materials are used in the Sultronics Slopers: stainless steel hardware, #12 solid copper med. drawn element wire, Amphenol coax connector, and heavy-duty aluminum tower mountable bracket. Both models are easily tuned for resonance by following the highly illustrated instruction manual supplied.

Although designed to allow those with only a modest size lot the opportunity of operating the lower HF bands, the compact size of the slopers should not mislead one into expecting only compact performance. The inherent low angle of radiation makes these slopers ideal for DX. As an added "plus", for those using one of the newer general coverage transceivers, the Sultronics Slopers will serve well as a general coverage SWL antenna also.

The SS-2A Duoband (80-40) Sloper is priced at \$27.95, while the SS-3A Triband (160-80-40) Sloper is priced at \$39.95 (ppd.).

For more information, contact: Sultronics Amateur Radio, 1587 U.S. 68 North, Xenia, OH 45385. □

## Software packages

New software packages are now available for the VIC-20 computer from RAK Electronics. The Ham Radio Disk - RK699 includes 12 Amateur Radio application programs for the VIC-20: Ham Antennas, Morse Code, Morse Trainer, Formulas, Formulas II, WAS Record, WAZ Record, DXCC Record, 5BWAS Record, 5BWAZ Record and 5BDXCC Record.

Available for the Commodore 64 computer is Ham Radio Disk-RK853, which includes 12 Amateur Radio application programs: Ham Antennas, Morse Trainer, Morse Code, World Clock, Formulas, Formulas II, WAS Record, WAZ Record, DXCC Record, 5BWAS Record, 5BWAZ Record and 5BDXCC Record.

These programs are available on disk only and are \$14.95 each plus \$2 shipping and handling per order from RAK Electronics, P.O. Box 1585, Orange Park, FL 32067-1585. Please send SASE for a catalog. □

## TNC connector

The 050-2200 TNC connector is a version of a BNC with threaded coupling. Characteristics, configuration, cabling procedure and cables accommodated are very close to those of BNC types. Frequency range covers DC through 3,000 MHz. Price: 1 — \$1.35, 10 — \$1.19 and 25 — \$1.08.

WORLD AUDIO KRAFT ACCESSORIES, 709 N. Memorial Parkway, Station E, Huntsville, AL 35801; (205) 534-0083.

For additional information contact Peter Thomas at (205) 534-0083. □

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The 1986 North American Callbook lists the amateurs in all countries in North America plus those in Hawaii and the U.S. possessions.

The 1986 International Callbook lists the calls, names, and address information for licensed amateurs in all countries outside North America. Fully updated by the Callbook editorial staff, the International Callbook's coverage includes South America, Europe, Asia, Africa, and the Pacific area (exclusive of Hawaii and the U.S. possessions).

The 1986 Callbook Supplement is a whole new concept in Callbook updates. Published on June 1st, this new Supplement will list the combined activity for both the North American Callbook and the International Callbook for the preceding 6 months.

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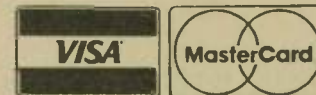
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Spring picnic for eight members and XYLS of the Pacific Amateur Radio Guild (PARG), a group of about 80 CW operators up and down the coast, was held at Lake Perris on 16 April. *Back row:* Ray Norstrom, K7DL; Gene Koenig, W6HVR; John Goodyear, W6HVB; "Larry" Lawrence, WA6CIM; Al Goepfinger, W6FXL; "Chris" Christensen (guest), N6GBN; Gene Horrall, K6PP. *Bottom row:* Howard Jones, WB6IXO; Roy "Ace" Ferren, K6RA. The group meets daily on 40 meters at 9:00 a.m., Mondays and Wednesdays at 9:00 p.m. on 80 meters.

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