

World Radio

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JAMES MAXWELL
PO BOX 473
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Graham Hicks, Jr., W4PJS/6Y5RO, at operating position in Kingston, Jamaica, following Hurricane Gilbert's devastating visit.



A dramatic example of aircraft damage caused by Hurricane Gilbert, at the Kingston Airport.

Jamaica aided by amateurs

**AL VAYHINGER,
W9ELR/6Y5RO**

On September 17, the International Amateur Radio Network (IARN) requested that a volunteer radio amateur accompany Graham Hicks, W4PJS (Atlanta, Georgia) en route to Jamaica to furnish much-needed radio communications for the Salvation Army in Kingston.

After talking to Graham by phone, he suggested that I not bring any radio equipment as he felt he would be overweight with the equipment that he already had. Graham was coming from LaGrande, Oregon.

Quint Nelson, WA4BZY, was coordinating our trip from Atlanta and he would be our Salvation Army RTTY and phone contact while we were in Jamaica.

Graham and Quint had packed a Drake TR3 transceiver, Radio Shack color computer, Radio Shack printer, HAL ST6 Terminal Unit for RTTY, Cushcraft A3 beam, 20M dipole, Honda 2.2 KVA generator and assorted tools.

We left Atlanta, Georgia on September 18, with the next stop scheduled at Montego Bay, Jamaica. As we arrived over the tip of Cuba, our pilot notified the passengers that the plane had developed mechanical trouble, and we

would be returning to Miami as repairs would not be available in Jamaica. After switching planes in Miami, we arrived at Montego Bay about four hours late.

We were met at the airport by representatives of the Salvation Army, and there we ran into our second delay. The Jamaican customs took a dim view of bringing two-way radio equipment into their country.

After cooling our heels for two days in Montego Bay, Graham finally convinced the officials that we were not there to overthrow their government, and we were finally given permission to put our radio equipment on a plane and accompany it to Kingston.

Upon arriving in Kingston, we were again met by representatives of the Salvation Army. After a brief discussion, again with customs in Kingston, we were soon able to get our equipment and take it to the Salvation Army Headquarters building. The roof of this building had been completely destroyed by the hurricane, and we were given a temporary building to set up our base of operations nearby.

After arriving at the location, we hastily put up our 20M dipole and were soon in communications with WA4BZY in Atlanta and Glenn Baxter, K1MAN, in Belgrade Lakes, Maine. The remainder of operations (please turn to page 3)

Airshow disaster

During an airshow being put on by the Confederate Air Force (CAF) in San Benito, Texas on October 8, a WWII vintage aircraft crashed, claiming the life of the pilot.

After hearing about the crash via police frequencies on a scanner, Fred Wasielewski, WA2VJL, and his son Fred, Jr., KA5UVY, arrived on the scene ready to assist with communications. WA2VJL relayed information to the CAF HQ amateur station com-

mand post (Harmon Ligon, K5SJA).

Without Amateur Radio it would have taken longer to obtain vital information such as plane ID number and location, and the condition of the pilot.

The CAF expressed gratitude to WA2VJL for all the help provided by amateurs during this emergency. A total of five amateurs assisted: WA2VJL; KA5UVY; K5SJA; William Hughes, Jr., KB5YU; and Donald Muhl, WA0DEI. —Fred Wasielewski, WA2VJL □

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Jamaica

(continued from page 1)

that day consisted mostly of coordinating emergency shipments of relief supplies scheduled to arrive in Jamaica.

The following day, between emergency communications, Graham and I assembled the Cushcraft Tri-band beam and erected it above the building. A trip was made to the Jamaican Post and Telecommunications Department where the government graciously issued us a special call sign of 6Y5RO, to be used exclusively by us for the emergency.

Most of our communications were handled on 14.275 MHz for phone, 14.090 MHz for RTTY to Atlanta, and some 15M communications. The local Amateur Club of Kingston was very cooperative and loaned us a 2M transceiver for communications with the local hams. A 40M dipole was erected so we could check it on the local ham network. (Ninety-five percent of all telephone service on the island had been knocked out by the hurricane.)

After a little over a week's operations of handling priority messages of movement of relief supplies, health-and-welfare messages and general Salvation Army communications with the States, the emergency situation of the country returned to near normal,



The Salvation Army HQ in Kingston, Jamaica suffered much damage.

and Graham and I left to return to our homes in the States.

We wish to thank all of the Net Control Stations and all of the hams who so graciously relayed and assisted in any way during the emergency.

We were assisted by amateurs in the United States, Canada, the United Kingdom, Australia and the Caribbean. Members of the local ham club and the Salvation Army gave us much-valued assistance and advice

which we otherwise would not have received.

We sincerely feel that if our efforts helped in any way to relieve some suffering and misery of the Jamaican people in their time of extreme tragedy, it was well worth the effort. □

Wanted: AK plates

Roy G. Klotz, Jr., M.D. of Dresher, Pennsylvania is collecting license plates, and is particularly interested in

Alaskan plates — including Amateur Radio Alaskan plates. If you can help him out, contact him at Box 111, Dresher, PA 19025; (215) 784-0808. □

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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 to this avocation.

You readers are participants — an alliance of active radio amateurs concerned with reality, using radio as a communications tool to develop the skill, quality and full potential of Amateur Radio.

We emphasize the positive aspects of this great activity, and desire your contributions dealing with dramatic, personal and humanitarian uses of Amateur Radio.

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A roll of the drums and a crash of the cymbals! Here are the latest **Worldradio Super-Boosters** (Lifetime Subscribers): William Bonvilla, KK4-NS, Lexington, KY; Charles Garber, N5BKH, El Paso, TX; Aloys Biver, KB9BJD, Chicago, IL; Michael Raymond, N7JZT, Tucson, AZ; Phyllis Fleming, N0JMR, Gardner, KS; Ryan Lundell, KB0AJF, Brooten, MN; Robert Wheeler, KB6SOM, Van Nuys, CA; Bascombe Dunlevy-Wilson, N3DAK, Fair Oaks, CA; and William Lalonde, KA6EFY, Sacramento, CA.

While at the QCWA luncheon during the ARRL National Convention in Portland, one of our readers (a ship's radio operator) mentioned the great need that presently exists for ship-board radio operators.

It's a good life and pays well. You can start with a 2nd Radiotelegraph license. Interested parties might want to contact Maersk Line, P.O. Box 884, Madison, NJ 07940. Should any of you sign up, let us know the stories of your travels and meeting hams around the world.

Speaking of Radiotelegraph, while

at a Pacific Division convention a young man told us how he got his license. Seeing an antenna, he went to the house and said he'd always wanted to be a ham. The man said, "Show up after school twice a week and I'll teach you the code."

Eventually the young man went to the FCC for the test. The CW started but he wasn't writing anything. The FCC inspector told him to get going. He replied that he would when it got to 13 wpm. The inspector said, "That is 13!" Even with a late start he passed the test. Seems the ham he ran into never had said, "This is hard, you'll have to fight a plateau," or anything like that.

What had happened was that the youngster had the good fortune to have run into Katashi Nose, KH6IJ, who sat him down and taught him the code at 20 wpm right from the beginning.

Conversations at a recent convention were about the fact that many people who get a Novice license never get on the air. It is just too frightening for them. Someone suggested that experienced amateurs go to the homes of

the newcomers and guide them through their first QSO's.

Let's not have any "Nobody ever helped me!" stuff. I personally know amateurs who studied all by themselves and passed the test and got on the air before they had ever even met another amateur.

Yes, and there were those who learned the code before there were all the tape courses or even an Instructograph.

Possibly it is a different era and different people. Or, as the old saw went: Once we had iron men and wooden ships; now it's the other way around.

Whatever, there are those who need a bit of hand-holding, and maybe even you received a bit of help when you started.

Worldradio is always looking for good pictures. If rare DX Ahmed comes to your city, take his picture. Others who have worked him will be interested to see what he looks like.

If someone who went on the DX-pedition to Lower Fandango Island speaks to your club, take his picture and send in a bit about how he described the effort.

For those looking for a new opportunity for service in Amateur Radio, give MARS a try. They certainly serve a useful purpose, and the members do have a sense of mission. (It is a totally false rumor that you must wear your boots and fatigue cap when you check into the nets.)

There is a real camaraderie among those involved, which must come from their assigned task and/or the kind of people attracted to it in the first place.

We bid a sad farewell to our editor, Chris Wilson, KA6TAL. Her seven years of dedicated and conscientious service is what has put **Worldradio** on your doorstep every month.

We'll miss her not only for her cheerful spirit, but also for the goodies she concocted in her kitchen for the staff.

—Armond, N6WR

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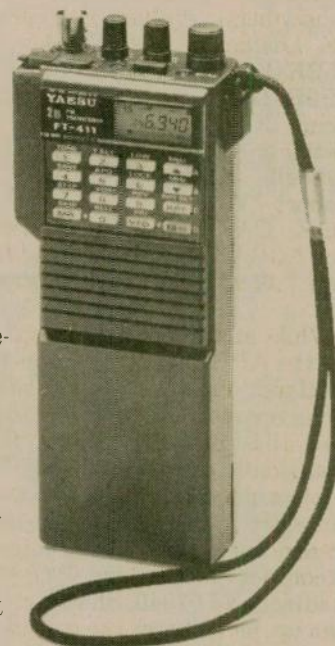
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DXpedition to Howland and Baker Islands *(part two of three)*

J.B. SMITH, VK9NS

On arrival in Tarawa just a couple of weeks before departure, there was much to do. A great deal of equipment had been freighted from Japan and Norfolk Island. The U.S. Fish and Wildlife staff had also freighted much of their basic needs. They had to be self-sufficient on Baker Island and they came well prepared.

Customs, shipping, freight, generators, antenna supports, operating areas, shelter and so on were among the things I needed to finalise. Of course, most of the groundwork had already been done. The reality was that all these areas had to become factual.

With the help of Ali, T30AY, within a couple of days I knew my way around Tarawa and knew all the contact points. However, almost immediately there was a major hiccup. One of the three "reserved" Yamaha 2.8 KVA petrol generators had been sold. There had been a power failure on one of the nearby islands and an urgent need for a generator. As a result, there were only two generators left, and this was not enough.

I had always planned for three sta-

tions plus RTTY and 6M. However, there was no chance of getting a generator to Tarawa on time unless more expense in air freight was incurred. Already a great deal of money had been spent.

Our salvation was a large diesel generator which was being held for a local Catholic mission. They had not enough money to pay for it, so it was being held for them. I then suggested a deal: let us have the generator for 15

***Armstrong methods are fine,
but I will always make one
antenna rotatable electrically
in the future.***

days (to cover the DXpedition time) and HIDXA would sell it to them, with a \$1,000 discount, as a slightly used item. This is the stuff of the bargain basement, but it was a reasonable approach for HIDXA as we got all our power for \$1,000.

The generator was paid for on the spot after one quick visit and discussion at the Shipping Company. The question very simply was, "Can you get this monster ashore on Howland?" There was a moment's pause and the reply was, "Jim, I don't think you really realise just what we have to get ashore on our island runs. This one is easy."

So it was that our worries over power became a minor consideration, and we had no problems at all with this aspect. It is admitted that they had a struggle, but with four brawny Kiribati males lifting, the generator did look very light. As they carried it from the beach, they sang a mumbling type of monologue.

This generator was started soon after arrival, fuelled on the run (very carefully), and it was shut down just

after our last QSO some six days later.

With the problem of shelter we had a stroke of luck. In a Telex to Tarawa, I had asked if there was a local Boy Scout group. Perhaps they might have tents which we could hire, to save the expense of buying them. A few days later I had a reply that a large 15 sq. ft. tent was available for hire at a very reasonable daily rate. By this time, Jean-Louis Domange, TR8JLD, had joined me in Tarawa. Two heads are always better than one.

When we went to check the tent to see if it was complete and serviceable, we found that there were no ropes or pickets. A hurried shopping trip back to one of my previous contacts, and I ordered 20 strong wooden tent pegs to be made. Plastic-covered rope was also obtained and we were in business. The tent was repacked, and it was hoped that the next time it was unpacked we would all be on Howland Island.

(This tent easily accommodated all our stations and the mountain of junk which we carried. In addition, we had a bit of room for a cot where we grabbed a couple of hours sleep from time to time.)

Two other areas of shelter had been planned, and the wooden frames had been made and labelled for easy assembly at our destination. A further area of shelter was also envisaged, using Doug's idea of framing and tarpaulins using the Amelia Earhart beacon as a tie point. This worked out very well. Kirsti, VK9NL, and I brought along a tent, but this proved to be inadequate for the very windy local conditions.

As part of the antenna farm, we had two Cushcraft 3-element beams. Two 7M masts were to be organized locally using 2" water pipe. I had checked that this was available, but it turned out to be quite difficult to obtain.

There was a large bundle of it in the shipping yard, but this was a lost consignment — no paperwork, customs clearance was impossible, and it became a dead end. I offered to quietly remove three lengths and return them in due course, but it was not to be. Very frustrating.

However, finally a source was found. The pipes were welded to my

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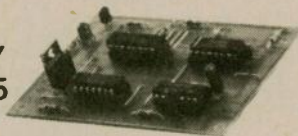
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specifications and a suitable base made from old car wheels, and a simple bearing system was arranged. The masts worked very well in practice; however, it has finally confirmed a principle I have always believed. It is based on Murphy's Law — the one which says your beam is never in the right direction.

Armstrong methods are fine, but I will always make one antenna rotatable electrically in the future. It is well worth the addition of a rotator and cable to the heap of equipment usually carried.

Guy rope was purchased, and the mast problems were finally fixed. All welding was done locally, but I thought it was expensive. However,

now with the arrival of Harold "Mac" McBirney, KV4AM, then Chris Martin, KA100Z. Finally, Kirsti and Ron Kessler, 7J3AAB, along with Doug Forsell and Dick Bauer of the U.S. Fish and Wildlife Service. Departure had been set for 6 p.m. on Thursday, March 24. This allowed all the latest arrivals one full day of shopping for anything needed at the last moment.

Doug and Dick purchased fresh fruit — bananas, limes, coconuts, papaya (paw-paw), imported apples and oranges, and so on. It was time to buy the soft drinks and a few cartons of beer, all based on a ration of so many cans a day. The arrangement worked out fine. Even after our return to Tarawa, we still had a stock of beer,

and had been loaded. Our generator was safely aboard and stowed, and finally the large aluminum dinghies were loaded. Each of us got settled in our small but comfortable cabins; we were on our way.

(Continued next month) □

I must comment on these wonderful people of Kiribati and their continuing ability to smile and be friendly. It became a feature of all our dealings with them.

the people involved were not Kiribati people and that may explain the situation.

Gradually Jean-Louis and I got more and more of the essentials organized. We had an arrangement with the Shipping Company, where they lent us one of the "ship containers" to store our bits and pieces. This also pleased Customs, who were quite happy to release our freight into this other "bond area." It worked very well in practice and provided good shelter and security for all our material.

Fuel for the generators was now arranged with the purchase of 400 litres of diesel and 400 litres of petrol for the one backup generator we decided to carry, just in case. Lubricating oil was purchased, in smaller quantities, of course, and also kerosene for our stoves. A promise was made that the fuel would be delivered on the day of our departure.

Things were really moving along

although this had been increased by a donation of two cartons of beer from the captain of the *Nei Momi*. (They had a wonderful catch of fish).

The vessel *Nei Momi* has the unlikely name of Miss Marble. The vessel had been built in Japan, and the passenger area, which we occupied, was really nice. Clean, and everything one could hope for without the expense of an ocean liner. They cared, and it made us feel at home. The food was simple but clean, well cooked and served with the smile that was important to them.

I must comment on these wonderful people of Kiribati and their continuing ability to smile and be friendly. It became a feature of all our dealings with them.

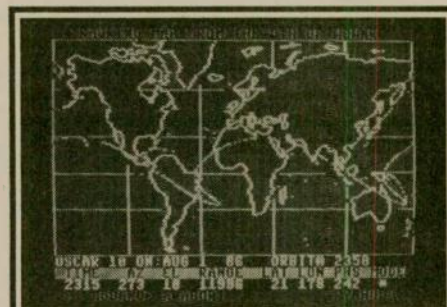
By 6 p.m. we were all aboard. The fuel had been delivered as promised

Interference pamphlet

Consumers Should Know Something About Interference is the title of a new publication just completed by the FCC and the Electronics Industries Association (EIA). This publication is designed to assist consumers in identification and resolution of common problems with interference to home electronic products.

The easy-to-understand pamphlet contains step-by-step methods of understanding and resolving interference. Copies are available from EIA or the FCC or any FCC Field Office. Write to: FCC, Public Service Division, 1919 M St. NW, Rm. 725, Washington, D.C. 20554; or Electronic Industries Association, Exec. Director of Consumer Affairs, 2001 Eye St. NW, Washington, D.C. 20006.

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FEATURES:

- Map oriented color graphics include moving satellite and footprint sprites and sub-orbital trace—looks great in monochrome too.
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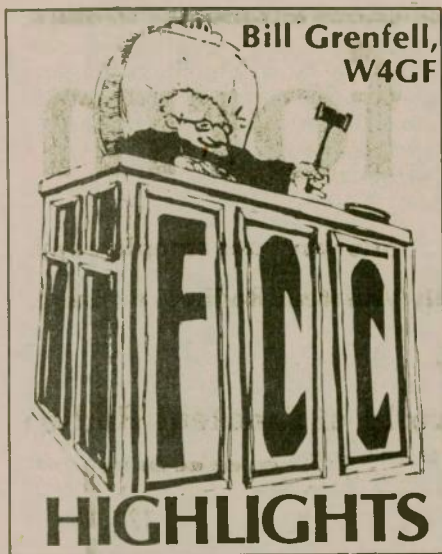
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Bill Grenfell,
W4GF

The FCC has initiated a Notice of Proposed Rule Making (NPRM) to permit the use of the 17M band (18.068-18.168 MHz) by the Amateur Radio Service (Docket 88-467).

"The Commission proposed making the 17M band available to General, Advanced and Extra Class licensees, with no power limitations other than those which generally govern the Amateur Service." Additionally, it proposed the creation of a 42 kHz CW digital subband (18.068-18.110 MHz), with the remainder of the band having phone, facsimile and television emissions authorized.

"The World Administrative Radio Conference (WARC) allocated the 17M band to the Amateur and Amateur-Satellite Services. Normally, a two-step process follows domestically after an international allocation like this.

"First is the amending of the domestic Table of Allocations, ..." which has already been accomplished. The second step which has awaited the removal of government-fixed operations from the band (which are to be terminated no later than July 1, 1989), is the adoption of rules in the Amateur Services for use of this spectrum; this the Commission is initiating with this NPRM."

Interested parties may file comments on or before October 31, 1988 and reply comments on or before November 30, 1988. To file formally in

this proceeding, participants must file an original and five copies of all comments, reply comments and supporting comments. If participants want each Commissioner to receive a personal copy of their comments, an original and nine copies must be sent to the Office of the Secretary, FCC, Washington, D.C. 20554. (ARRL Letter, 09/12/88; Westlink Report, 09/30/88; W5YI Reports, 09/15 & 10/01/88)

The FCC's Report and Order in Docket No. 87-14 allocating 220-222 MHz to the Land Mobile Service was released September 6.

"The effective date of the Order will be 30 days after the date of publication in the Federal Register. However, neither government nor non-government users will be allowed access to the 220-222 MHz segment until final service rules have been adopted by the Commission. This may not occur for many months. Meanwhile, amateur stations may continue to utilize the 220-222 MHz segment until private land mobile and government users are allowed access.

"In the Order, FCC asks amateurs to begin an orderly transition of ongoing operations in the 220-222 MHz segment to other bands." The ARRL advises "... it continues to fight the Commission's Order." (ARRL Letter, 09/12/88; Westlink Report, 09/16/88)

Because consideration of the subject is expected in the Docket 88-139 Rule Making to re-write Part 97, petitions RM-6094 and RM-6095 seeking

changes in the manner in which Morse tests for amateur license examinees are administered, have been withdrawn by the petitioner. It is reported that "... many hams are very concerned about a part of the rewrite proposal which would give the Commission blanket authority to restrict a ham from operating if his station caused RFI — even if the interference was not the fault of his station."

The FCC granted ARRL's request for a 90-day extension of time for filing comments in the Docket, making the due dates November 29, 1988 and January 31, 1989 for original and reply comments. The title of the Docket is "Reorganization and Deregulation of Part 97 of the Commission's Rules governing the Amateur Radio Services." (W5YI Report, 10/01/88; ARRL Letter, 09/12/88; Westlink Report, 09/16/88)

On August 4, the FCC denied a petition which "... proposed to lower the General Class code speed requirement to 10 wpm, and raise the Advanced Class code speed requirement to 15 wpm ... which would result in a telegraphy skill ladder of 5 wpm steps.

"In denying the petition, the FCC ... said that the requirement to 15 for Advanced Class would make it more difficult to upgrade to that class. Also, adoption of the proposal would increase the burden on the Volunteer Examiners because it would require them to prepare and administer another examination. (please turn to page 10)

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 October 1, 1988. For more information about the 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 17326.

Radio District	Group A Am. Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
0	WN0V	KE0YD	N0JUU	KB0DHE
1	NT1W	KC1LK	N1FZM	KA1SPD
2	WK2C	KE2JF	N2IPE	KB2GJG
3	NS3D	KD3JP	N3GNT	KA3TQT
4	AB4KP	KM4IE	N4UAC	KC4HAF
5	AA5IB	KG5NR	N5NFW	KB5HLJ
6	AA6KU	KJ6MR	N6TIV	KC6AFQ
7	WT7J	KF7OG	N7LSN	KB7FWC
8	WK8I	KE8UL	N8JYT	KB8FNW
9	WD9G	KE9MX	N9HVD	KB9BNT
North Mariana Is.	AH0G	AH0AE	KH0AL	WH0AAH
Guam	KH2K	AH2CC	KH2DM	WH2ALT
Johnston Is.	AH3B	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Palmyra, Jarvis Is.	AH5A			
Hawaii		AH6JD	NH6QY	WH6CAG
Kure Is.			KH7AA	
American Samoa	AH8C	AH8AD	KH8AG	WH8AAX
Wake Wilkes Peale	AH9A	AH9AD	KH9AD	WH9AAH
Alaska		AL7KI	NL7OY	WL7BSF
Virgin Is.	NP2D	KP2BN	NP2CR	WP2AGB
Puerto Rico		KP4PR	WP4RQ	WP4IEN

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FCC Highlights

(continued from page 8)

"The Commission concluded that the petition provided no significant benefits for the Amateur Service or the public ..." (ARRL Letter, 09/29/88)

The FCC has required foreign amateurs operating in the United States with reciprocal permits to identify by sending the U.S. prefix first, followed by the slant bar or "slash" and their call sign. The one exception is that Canadian amateurs operating in the United States must follow their call sign with the appropriate U.S. prefix (e.g., VE2BE/W1). It is reported that modification of the Canadian/U.S. reciprocal operation agreement to provide use of the other method, is being negotiated. (ARRL Letter, 09/12/88; W5YI Report, 10/01/88)

A petition has been filed with the

FCC requesting that the rules be amended to restrict bulletins transmitted by amateur stations by redefining them as "brief one-way transmissions of timely news to radio amateurs."

In support of his request, the petitioner "... observed that several lengthy one-way broadcasts were taking place on the ham bands. Some, he said, were lasting up to 45 minutes and were being simulcast on several frequencies." Another amateur "... had also requested that telegraphy practice, code bulletins and those delivered by RTTY be redefined."

In denying the request, the Commission noted "... that the definitions of bulletins he requested allowed for the subjective determination by each amateur as to what a brief and timely announcement was." FCC openly sided against any rules change by saying, "The flexibility that has been enjoyed by those stations that currently transmit information bulletins would be endangered."

The denial was by FCC Order on August 23, 1988. (Westlink Report, 09/30/88; W5YI Report, 09/15/88)

On September 6, 1983, FCC's Safety and Special Radio Services Bureau Chief released an Order permitting the retransmission by Amateur Radio stations on amateur frequencies of the radio communications from the space shuttle for the duration of the shuttle flights launched by NASA. During the recent flight of the NASA shuttle *Discovery*, the Goddard ARC's WA3-NAN retransmitted the communications to and from the spacecraft in the 80, 40, 20, 15 and 2M amateur bands.

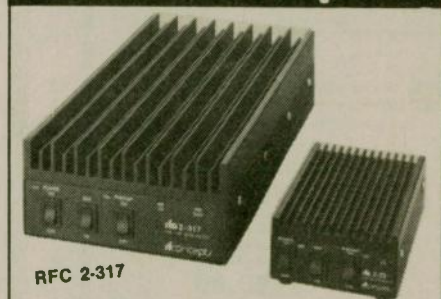
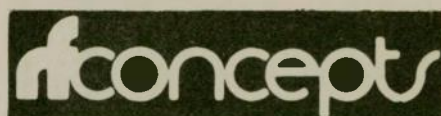
The FCC Miami field office designated 14.325 MHz and 14.275 (± 5 kHz) as emergency frequencies for Hurricane Gilbert message traffic on behalf of the National Hurricane Center. All amateur transmissions on these frequencies had to pertain directly to relief work and emergency service.

One amateur who was giving a detailed eyewitness account "... carried over South Florida radio ... was told news gathering by amateur stations was illegal (and) shut down his station." (W5YI Report, 10/01/88)

The FCC denied a petition by an amateur "... requesting that amateur stations be permitted to engage in direct emergency communications with local police and state patrol officers." The FCC noted that the type of communications proposed are prohibited by its rules and that "... the Commission has determined that the Amateur Service should not be used as an alternative to other radio services ..." (ARRL Letter, 09/29/88)

"The FCC will not be accepting certified updates from other amateurs that a ham has moved ... or died." A petitioner had suggested that a letter signed by three Extra Class licensees be accepted by FCC as warranting a change in its records. "The FCC dismissed this request with little comment." (Westlink Report, 09/16/88)

The FCC advises that it will not grant any waivers to the current 365-day term in which a ham can use a Certificate of Successful Completion of Examination (CSCE) CSCE's are issued by Volunteer Exam teams for crediting elements passed. (Westlink Report, 09/16/88)



RFC 2-317

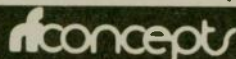
	144 MHz Amps		
RFC 2-23	2W	IN =	30W OUT
" 2-217	2W	IN =	170W OUT
" 2-117	10W	IN =	170W OUT
" 2-317	30W	IN =	170W OUT
" 2-417	45W	IN =	170W OUT
	220 MHz Amps		
RFC 3-22	2W	IN =	20W OUT
" 3-211	2W	IN =	110W OUT
" 3-112	10W	IN =	120W OUT
" 3-312	30W	IN =	120W OUT
	440 MHz Amps		
RFC 4-32	3W	IN =	20W OUT
" 4-310	3W	IN =	100W OUT
" 4-110	10W	IN =	100W OUT

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The ARRL filed a petition with FCC on September 7, requesting amendment of Section 97.87(e) to shift the frequencies on which amateurs may operate automatically controlled beacon stations to 144.275-144.300, 220.275-220.300 and 432-432.400 MHz.

The League wants the beacon frequencies moved so that they will not fall "squarely within the portions of each band used for weak-signal amateur communications" (W5YI Report, 09/15/88)

END-OF-MONTH LICENSE TOTALS

August	1988	September
45,909	Extra	46,152
98,282	Advanced	98,354
113,068	General	112,989
98,944	Technician	99,603
80,502	Novice	79,730
436,705	Totals	436,828

What we learn from the past is that we seldom learn from the past. —Arrowhead RAC, Duluth, MN

Unscrupulous scanners

A repeater was recently "ripped off" in the South Bay. For this reason, never divulge the location of a repeater over the air. There could be unscrupulous persons on scanners listening for such information.

If someone asks for the repeater location, just give the city, but don't be too specific. For the same reason, it's not prudent to announce over the air that you will be on vacation or away from home for any reason. —East Bay ARC, El Cerrito, CA

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FT-23 R/TT Mini HT	344.95	Call \$
FT-209RH FM Handheld 5w	389.95	Call \$
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FT-711RH FM Mobile 35w	449.95	Call \$
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220 MHz		
FT-33R, mini HT	389.95	Call \$
FT-109 RH New HT	399.95	Call \$
FT-312 RM, Mobile	TBA	Call \$
FT-311 RM Mobile	499.95	Call \$
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IC-751A Gen. Cvg Xcvr	1699.00	Call \$
IC-575A 10m/6m Xcvr	1399.00	Call \$
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IC-R7000 25-1300 + MHz Rcvr	1199.00	Call \$
IC-R71A 100 kHz-30 MHz Rcvr	999.00	Call \$
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IC-228A New 25w Mobile	509.00	Call \$
IC-228H New 45w Mobile	539.00	Call \$
IC-275A All Mode Base w/PS	1299.00	Call \$
IC-275H All Mode Base 100w	1399.00	Call \$
IC-28A FM Mobile 25w	469.00	Call \$
IC-28H FM Mobile 45w	499.00	Call \$
IC-2GAT, New 7w HT	429.95	Call \$
IC-2AT FM HT	319.00	Call \$
IC-02AT FM HT, HP	409.00	Call \$
IC-2AT Micro HT	329.00	Call \$
IC-900 Six Band Mobile	639.00	Call \$
UHF		
IC-475A All Mode 25w	1399.00	Call \$
IC-475H All Mode 75w	1599.00	Call \$
IC-48A FM Mobile 25w	509.00	Call \$
IC-4GAT, New 6w HT	449.95	Call \$
IC-4AT FM HT	349.00	Call \$
IC-04AT FM HT	449.00	Call \$
IC-448A, 25w Mobile	TBA	Call \$
IC-3200A FM 2m/70cm 25w	649.00	Call \$
IC-32AT Dual Band Handheld	624.95	Call \$
IC-3210 Dual Band Mobile	TBA	Call \$
220 MHz		
IC-375A All-Mode, 25w, Base Sta	1399.00	Call \$
IC-38A 25w FM Xcvr	489.00	Call \$
IC-37A FM Mobile 25w	499.00	Call \$
IC-3AT FM HT	349.00	Call \$
IC-03AT Deluxe HT	449.00	Call \$
1.2 GHz		
IC-1271A All Mode 10w	1269.00	Call \$
IC-1200 FM, 10w Mobile	699.00	Call \$
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TS-140S Compact, Gen. Cvg Xcvr	929.95	Call \$
TS-680S HF Plus 6m Xcvr	1099.95	Call \$
TL-922A HF Amp	1649.95	Call \$
Receivers		
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R-2000 150 kHz-30 MHz	749.95	Call \$
RZ-1 Compact Scanning Rcvr	599.95	Call \$
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TR-851A 25w SSB/FM	749.95	Call \$
TM-421A Compact FM 35w	449.95	Call \$
TH-415A 2.5w 440 HT	399.95	Call \$
TH-45AT 5w Pocket HT NEW	369.95	Call \$
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List the location, and information examinees should have (advance registration, etc.) and the name and telephone number of a person to contact for further information.

p/r = pre-register

w/i = walk-in

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Dec 3	Fairbanks	AL7IF (907) 474-0842	w/i	Jan 15	Des Moines	NA0R (515) 967-3890	p/r by 12/15
Dec 3	Juneau	KL7KD (907) 789-0292	w/i	Dec 10	Ames	KC0RX (515) 292-4504	w/i
Dec 7	Anchorage	KL7HFQ (907) 243-2221	w/i	Kansas			
Dec 21	Eagle River	KL7HFQ (907) 243-2221	w/i	Dec 17	Topeka	NQ0S (913) 273-3328	w/i OK
Arizona				Maine			
Dec 17	Tucson	K7OPX (602) 886-7217	w/i OK	Dec 11	Bath	ND1O (207) 443-2949	
Arkansas				Dec 21	Augusta	N1BCF (207) 623-4249	
Dec 3	Conway	Glenn King (501) 329-1451		Maryland			
California				Dec 3	College Park	NF3I (301) 963-4008	w/i
Dec 3	Burbank	W6JEP (805) 948-8493	w/i OK	Dec 10	Salisbury	K3NOQ (301) 749-7444	p/r pref
Dec 3	Fullerton	KD6DA (213) 691-1514	p/r pref	Dec 22	Towson	Ron Derencz (301) 765-2843	w/i
Dec 3	Riverside	(714) 780-2680	7-day p/r	Massachusetts			
Dec 3	Roseville	N6DFL (916) 484-1155	w/i only	Dec 17	Melrose	NC1V (617) 665-6061	w/i OK
Dec 3	San Luis Obispo	W6ECY (805) 528-2934	w/i OK	Dec 21	Cambridge	Nick Altanbernd (617) 437-0320	2-day p/r
Dec 3	Van Nuys	N6LGO (818) 988-7165	p/r; ltd. w/i	Michigan			
Dec 4	Chico	W6YKU (916) 342-1180	p/r pref	Dec 3	Saginaw	K8OT (517) 624-9094	w/i only
Dec 7	Markleeville	W6FFT (702) 266-3661	w/i only	Dec 4	South Haven	WD8AGC/WD8MEU (616) 637-3905	w/i
Dec 10	Camarillo	N6SR (805) 484-4461	ltd. w/i	Minnesota			
Dec 10	Downey	K6OWA (213) 869-6683		Dec 17	St. Paul	KA0OMX (612) 426-4438	p/r pref
Dec 10	Los Altos Hills	KG6XF (408) 255-9000	w/i only	Missouri			
Dec 10	Novato	N6AQY (415) 897-8950	w/i OK	Dec 3	Hillboro	WB0D (314) 892-0688	w/i OK
Dec 10	San Marcos	(619) 465-EXAM	p/r by 11/30	Dec 8	Hazelwood	NZ0P (314) 524-3254	w/i OK
Dec 14	El Cajon/Escondido	(619) 465-EXAM	p/r by 12/14	Dec 16	Liberty	PHD VEC, POB 11, 64068-0011	
Dec 17	Chula Vista	(619) 465-EXAM	p/r by 12/7	Nevada			
Dec 18	Sunnyvale	W6NLG (408) 255-9000	w/i only	Dec 3	Minden	W6FFT (702) 266-3661	w/i only
Dec 21	Eureka	N6KLJ (707) 442-6631	w/i OK	New Jersey			
Dec 31	Eagle Rock	WB6PSY (818) 710-1705; N6JFG (213) 258-4860	w/i	Dec 3	Alpine	NZ2T (201) 348-0575	w/i OK
Colorado				Dec 10	Cranford	N2XJ (201) 835-7686	w/i OK
Dec 10	Denver	W0IJR (303) 366-9689	p/r pref	Dec 15	Bellmawr	WA2VQG (609) 546-7710	w/i OK
Delaware				New York			
Dec 10	Wilmington	AWARE, 3208 Concord Pike 19803	w/i OK	Dec 10	Greenvale	W2NL (516) 541-2450	w/i OK
Florida				Dec 10	Selden	George Sintchek (516) 751-0894	w/i OK
Dec 6	New Port Richey	AA4FG (813) 849-1224	w/i OK	Dec 11	N. Babylon	W2DUK (516) 957-5287	w/i OK
Dec 12	Ocala	NT4B (904) 237-5783	w/i OK	Dec 14	Bethpage	W2QUV (516) 354-6861	w/i OK
Dec 15	Pensacola	AA4W (904) 968-6499	w/i OK	Ohio			
Dec 17	Melbourne	N4FUY (407) 768-0888	w/i OK	Dec 3	Columbus	Jim Kerr (614) 866-5531	w/i OK
Georgia				Dec 17	Cincinnati	N8FWA (513) 251-1555	ltd. w/i
Dec 10	Augusta	N4MWR (404) 863-9143	w/i	Oregon			
Dec 31	Albany	K4XA (912) 883-7910	w/i only	Dec 3	Portland	Randy (503) 649-5066	w/i only
Idaho				Pennsylvania			
Dec 10	Boise	W7JMH (208) 343-9153	w/i OK	Dec 3	Erie	W3CG (814) 665-9124	w/i OK
Illinois				Dec 7	Scranton	WA3QGA (301) 776-3046	w/i
Dec 2	Springfield	Bill Bermel (217) 529-7730		Dec 17	Beaver Country	KF3V (412) 843-6560	2-day p/r
Dec 3	Galesburg	Larry Heller (309) 342-5977		Dec 31	McKeesport	KQ3W (412) 466-5204	2-day p/r
Dec 3	Quincy	Ron Rose (217) 224-9238		South Carolina			
Dec 7	Granite City	N9MX (618) 344-8164	w/i OK	Dec 17	Columbia	N4WR (803) 345-3373	w/i OK
Dec 10	Oak Forest	NF9N (312) 448-9432	w/i OK	Texas			
Dec 12	La Salle	Don Selbrede (815) 223-2848		Dec 10	Austin	KF5NB (512) 272-8233	w/i OK
Dec 14	Lenore	Don Selbrede (815) 223-2848		Dec 10	Cleveland	N5AF (713) 592-2257	w/i OK
Dec 17	Rockford	Eugene Melton (815) 633-1067		Dec 10	Midland	KT5G (915) 694-9450	w/i OK
Dec 22	Chicago	W9WBY (312) 929-6550		Dec 10	San Antonio	NS5I (512) 681-0702	w/i
Indiana				Dec 12	Brady	WD5H (915) 597-2561	7-day p/r
Dec 3	Indianapolis	Louise C. Clark (317) 241-1272		Wisconsin			
Dec 3	Muncie	Peggy Coulter (317) 288-0481		Dec 3	Stevens Point	N9JW (715) 344-1182	
Dec 3	New Castle	Peggy Coulter (317) 288-0481		Dec 17	Milwaukee	KB9G (414) 351-5311	w/i OK
Dec 3	South Bend	N19Y (219) 255-4455	w/i OK				
Dec 10	Hammond	Mike Kasrich (219) 962-5512					

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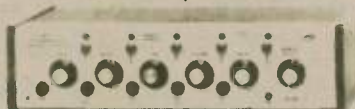
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SPECIAL EVENTS

Bicentennial 200

The San Benito ARC will operate KA200UVY during the week of December 23-30, when registered clubs in Texas have their turn in the Constitution's bicentennial celebration.

Operation will be daily from 2200 UTC to 0300 UTC, and all day weekends. Frequencies: CW — 3.725, 7.125, 21.125, 28.125; SSB — 21.360, 14.325, 28.425. For special modes and/or frequencies, contact the club.

This is the only "200" call in the lower Rio Grande Valley! For special certificate, send SASE (9½x11 for flat mailing) along with QSL card and contact number to: San Benito ARC, ATTN: KA200UVY, P.O. Box 1382, San Benito, TX 78586-1382. □

Garland celebrates

The Garland ARC of Garland, Texas will operate K200QHD from 0001Z, December 24 to 2359Z, December 30. Modes used will be CW, SSB and digital; frequencies will be 80 through 10M.

For special QSL, send your QSL and SASE to Paul Godwin, KF5PE, 2934 Cotton Gum Rd., Garland, TX 75042.

HAPPY HOLIDAYS

ESTABLISH A HAM TESTING CENTER IN YOUR AREA

As of 1984, all ham radio license testing is handled by the amateur radio community itself. Teams of three Extra Class volunteer examiners (VE's) can now conduct all ham license upgrade examinations.

W5YI-VEC, the initial national VE Coordinator approved by the FCC, oversees the largest alternative (to the ARRL) testing program in the U.S. You can be a part of it by following the simple testing instructions provided.

Administering Technician through Extra Class examinations is no harder than administering Novice examinations — which VE's have done for decades. We offer...fastest VE accreditation, complete instructions, immediate testing...with testing fees (expense reimbursement) shared with the VE team.

Send an SASE today for a VE application if you are an Extra Class amateur and serious about conducting periodic amateur radio examination sessions in your area so that others may upgrade.



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Let's get Amateur Radio growing again!

AC200T, Alabama

The Shelby County ARC will participate in the celebration of the 200th anniversary of the U.S. Constitution by operating AC200T, December 10-16. This event will also be used to celebrate the opening of the club station located in Pelham, Alabama.

AC200T is planning to operate all HF bands, concentrating on CW and SSB. Other modes will be used if available. Special efforts will be made to contact Novices. All QSL's should include an SASE and be sent via Joseph Ciza, W4DYL, 632 Glen Park Drive, Fairfield, AL 35064. □

Two anniversaries

The Iowa Radiosport Society will be operating Amateur Radio special event station K200RW during the week of December 17-23, in celebration of the Constitutional Bicentennial and the 150th anniversary of Burlington, Iowa as the first territorial capital.

Operations will be on CW and SSB as propagation permits. During the week a special emphasis will be placed on operations in the 10M, as well as other, Novice segments. Special QSL cards will be available for return upon receipt of SASE or SAE and IRC sent to: 923 N. 9th St., Burlington, IA 52601. □

Tournament of Roses

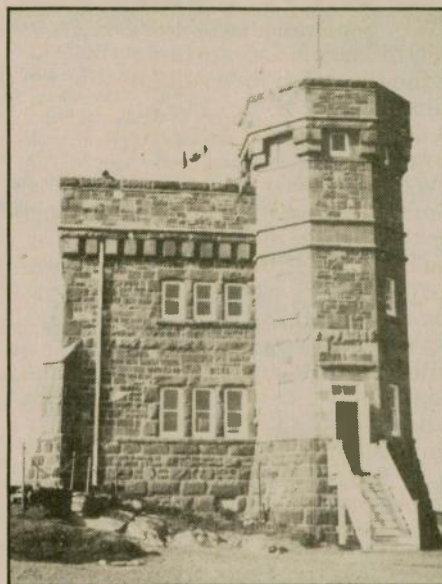
The Relay Repeater ARC will operate KG6AX, December 29 to January 2, from the Wrigley Mansion in Pasadena, California to commemorate the 100th anniversary of the Tournament of Roses — 100 years of the Rose Parade and 75 years of the Rose Bowl Game.

The station will operate from 1600Z to 0400Z each day on these suggested frequencies: 3.885, 7.260, 14.260, 21.335, 28.550 and 28.450 Novice/Tech (±QRM). For certificate, send QSL and 9x12 SASE to Relay Repeater Club, P.O. Box 81, Arcadia, CA 91006-5019. □

Newfoundland history

PAUL HERRMANN, W2JDK


On December 12, 1901 at the Signal Hill Hospital in St. John's, Newfoundland, Guglielmo Marconi marked the dawn of the Wireless Age with the reception of the first transatlantic radio transmission, the Morse letter "S", sent from Cornwall, England.




Cabot Tower, St. John's, Newfoundland. A short distance from here, Marconi received the first transatlantic wireless transmission.

Not far from the historic hospital, the ancient process of flag signaling was practiced at the Cabot Tower. It was not until 1933, when the new technology was implemented by the Canadian Marconi Company, that the system of flags was retired.

The wireless station itself was retired in 1960. The Canadian government then declared the site to be a



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historical landmark. Today the Cabot Tower is a popular attraction for visitors to the Maritimes.

In celebration of 100 years of municipal government, the Department of Communications issued to the Society of Newfoundland Radio Amateurs the club call of VO7AA. Their special event station took place in late August 1988.

If, by chance, you should be fortunate enough to work the club, a QSL can be obtained from the manager, Rollie Peddle, VO1BD, 11 Vaughan Place, St. John's A1B 1R3, Newfoundland, CANADA. □



W200TKV set-up with TA-33Jr, 15M quad and 40M V

W200 station from a motorhome; 3) the first to hold antenna masts up by

bungie cords; 4) the first W200 to work five other W200 stations; and 5) the first club to mark their calendars for W300TKV. □

Hams on shortwave

Two weekly Amateur Radio programs can be found on the shortwave broadcast bands. "Ham Radio Today" is on HCJB every Thursday, at 0230 UTC, on 6.230, 9.720 and 11.775 MHz.

There is also "World of Radio," which can be heard on Fridays, 2200 CDST, 6.180 MHz; Saturdays, 1830 CDST, 9.852 MHz; and Sundays, 0800 CDST, 9.715 MHz.

—Argonne ARC, WI □

CNARC travels far to celebrate

FRED ROBERTS, W6TKV

The Corona Norco ARC operated W200TKV in Sacramento over the Labor Day weekend. To do so, the team of Fred Roberts, W6TKV, and Tom Watson, N6OZV, traveled 451 miles to set up in a motel parking lot at Northgate and I-80.

They arrived in Sacramento at 2 p.m. on Friday, September 2 — three hours before the starting time (0000 UTC, September 3). W6TKV and N6OZV had no definite place to set up, so they searched for a suitable location adjacent to some modern conveniences — namely, restaurants and a motel.

W6TKV even went into Roche Biomedical Laboratories and asked for the general manager to see if they could set up antennas on their lawn. W6TKV was well received. It turned out the general manager had been a Novice some years earlier.

Because of approval delays, the team elected to set up in the back parking lot of the Travelers Inn. A tri-band beam was mounted on a push-up at 20 feet, with the mast tied to the motorhome using bungie cords. A second mast with a 2-element 15M quad and 40M inverted V was similarly mounted to a 3' iron post.

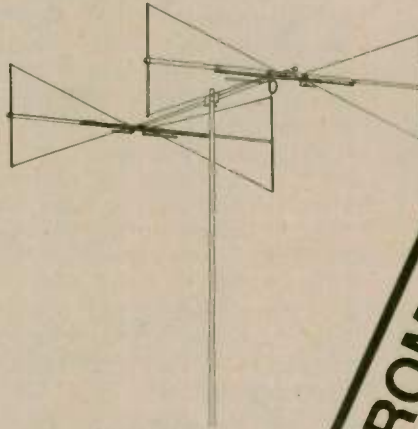
As a result of an inspiring effort, W200TKV came on the air at the start of the operating period for California. The two-man team garnered 685 QSO's by Sunday evening. This total included 45 states and five other W200 stations.

The antennas and station were broken down Sunday evening at dusk, so W6TKV and N6OZV could depart Sacramento at 6 a.m. on Labor Day for the return trip to the Corona/Norco area.

W200TKV lays claim to several firsts: 1) traveled the furthest to put a W200 station on the air; 2) operating a

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In preparation for the March 12-13 special event station, these four visited the youth hostels at Pigeon Point and Point Montara. On Sunday, March 13, they — along with 30 Santa Cruz school Novices — “radioactivated” the 200'-high lighthouse, keeping skeds with youth worldwide via 220 and 10M HT's. From left to right: Youth Group leaders Todd Meyers, KB6VOQ, and Jackie Sanders, KB6MTV; and advisers Catherine Gunderson, KB6OOS, and Tom Ginsberg, WD6EHL. (Photo by Art Lee, WF6P)

When is a lighthouse a ham shack?

MARY DUFFIELD, WA6KFA

Local teenage Amateur Radio operators “radioactivated” Pigeon Point lighthouse in Pescadero, March 12 and 13.

Originating the first such event in the lighthouse's 121-year-old history, 30 youths from four Santa Cruz schools communicated on all the ham bands with other radio amateurs everywhere.

They also sent free “radiograms” for the national and international visitors flocking to the American Youth Hostels at Pigeon Point and Point Montara that weekend.

Many of the Novice Class radio operators transmitted “bicycle mobile” en route to and from both hostels, on their VHF handi-talkies, said Todd Meyers, KB6VOQ, who organized the bike riding.

Meyers and Jackie Sanders, KB6-MTV, were the leaders of the Youth Group sponsored by the local Santa Cruz County ARC. Jackie holds an Advanced Class license — probably

the youngest ham from this area to do so, and represented Aptos Junior High.

The Youth Group is advised by Catharine Gunderson, KB6OOS, who is also co-chairperson of the Redwood Youth Foundation (RYF), which has equipped the schools with electronic stations and taught licensing skills. The RYF sponsored the lighthouse operation.

Leona Heavens of Del Mar designed a special “collectible” for the event: a specially designed QSL card, to be exchanged between the hams making contact. The card confirms the contact and furthers the friendship, states Leona.

Frank Wyatt, N6FW, a long-time lighthouse aficionado, originated the idea.

SCCARC President Leon Fletcher, N6HYK, a retired speech professor from Monterey Peninsula College, announces youth enhancement programs such as individual ham experts assisting student beginners, awards for outstanding youth achievements, etc. And teacher Maura Hennessey of Holy Cross Elementary hopes to offer an “electronic communications” elective for middle school students there soon.

Hennessey also plans to share her sailboat with the sailing program that RYF teachers Mary Duffield and Gary Fredricks use to enhance their educational offerings.

“Japan has produced electronically savvy youth by installing ham stations in every school for the last 30 years. It's high time our schools and our hi-tech experts help our youngsters explore these fabulous new frontiers,” remarks Versatech engineer Ben Deovlet, WB6FDU.

Deovlet had donated dozens of radios to the RYF program and helps keep them repaired. The Del Mar radio station has been named “Ben's Den” in his honor.

Jerry Reid, KB6VKX, feels well rewarded for his hours of studying Morse code and radio theory by his exciting “ragchews” with Argentina, Japan, Peru, Indianapolis and Salinas.

“Every generation, if it is to fulfill itself, must have a dream to inspire it and an adventure to ennoble it,” according to columnist Jack Anderson. Gunderson believes that the RYF and the SCCARC are helping teens fulfill a dream of friendly global communication, and the adventure of “enlightening a lighthouse.” □

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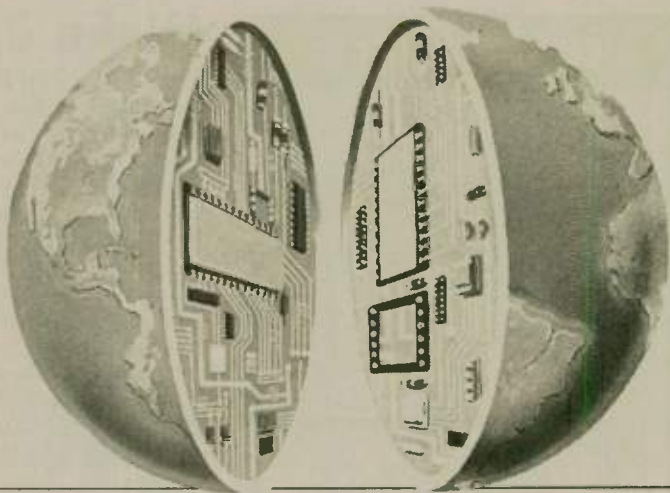
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Wake up and go

ROBERT ZEITER, W6NAA

Shortly before 1 a.m., Saturday, September 3, Los Angeles area amateurs were dreaming of the Southwestern Division Convention, which was entering its second day. But fate had other plans for several Los Angeles County RACES members.

In the Los Angeles suburb of City of Commerce industrial area, a drum of toxic chemicals became involved in a fire, its toxic smoke quickly spreading in the stagnant air. Eventually, 2,000 pounds of chemicals were involved.

Firemen of the HAZMAT team responding found toxic smoke so dense that several of them had to be guided to clear air by additional firemen. In the stagnant air, the brown smoke moved northeast and invaded the cities of Montebello, Monterey Park, and into the county areas of the East Los Angeles community. By 2 a.m., the Sheriff's Department had started moving 200 deputies into the area to start the evacuation of the affected areas.

The affected areas presented linguistic problems for the evacuation officials. This area houses large communities of Spanish, Oriental and other language-speaking peoples. Adding to the problem was the large number of families who did not possess their own transportation, and who had to walk several miles to evacuation centers.

By 2:30 a.m., Philip Wagner, WD6-GWV, and Bill Catron, N6JKF, were activated and were manning three city disaster communications consoles, one Amateur Radio console and two city services consoles. Sheriff's Sergeant John Boyle, KB6VSJ, had activated Los Angeles County RACES and was busy calling the organization officers.

The county RACES headquarters facility — CIC (County Information Center) — was operated under the call of K6CPT by several staff officers, many of whom had to travel over 20 miles after being awakened by Sgt. Boyle. Operating at CIC were Staff Officers Bud Boulton, WA6AAD, "Libby" Gregory, KA6RKK, and Steve Ng, N6IQE. Arriving later was Bob Zeiter, W6NAA, Information Officer.

RACES members started arriving at evacuation centers to provide governmental communications and were functioning by 7 a.m. Serving at Pioneer High School, east of Pico Rivera, was Carl Nelson, NJ6K, and Floyd Nicholson, W6HRD. Relieving them later was Chuck Lambert, KA6DXR.

Operating at El Rancho High School was Al Marsden, WN6AOH. Providing communications at Roosevelt High School in East Los Angeles was Niel Larsen, N6MHT.

Providing relief for the CIC personnel who had been working for over five hours was Shelley Patz, N6KAG, and Clyde Nakamura, WB6IOS.

The evacuation was one of California's largest, involving up to 27,000 persons. It was considered a very successful evacuation in that only 70 persons were hospitalized, all of them being treated for toxic fumes inhalation. This compares with the nearby Whittier earthquake evacuation of 12,000 in October 1, 1987.



Operating at Pioneer High School refugee center are (left to right): Floyd Nicholson, W6HRD, and Carl Nelson, NJ6K.

A comparison of emergency Amateur Radio involvement is interesting in that about two dozen hams were activated to provide auxiliary governmental communications, with many more providing civilian communications through ARES organizations for the Whittier temblor. For the toxic fumes evacuation, only the above few were needed for governmental communications.

By making a restrained response to the emergency instead of a mass rush to the scenes, the local amateurs enhanced their reputation with the governmental emergency officials involved. In both emergencies, only those actually needed were activated.

In closing, Los Angeles County RACES Officers wish to thank all of the members who, during their attendance at the local convention held a few miles away, volunteered their willingness to be activated if the need arose.

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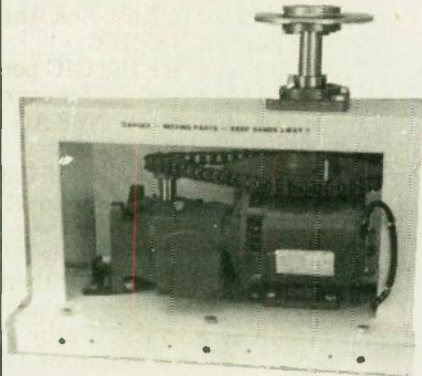
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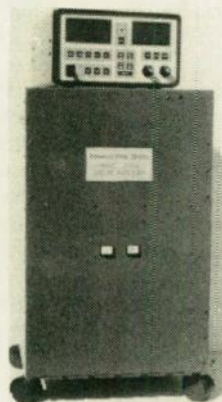
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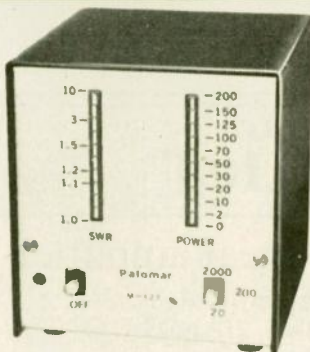


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Callbook buys Radio School

Gordon West's Radio School has been purchased by Illinois-based Radio Amateur Callbook, Inc. The Callbook will handle all distribution of Gordon West's cassette code tapes and West-written Amateur Radio training materials.

Gordon West will continue to develop and produce new code tapes, as well as additional upgrade training books.

West also plans a new powerful program for training Amateur Radio instructors. West considers ham instructors and "Elmers" the key connection to increased Amateur Radio recruitment.

"We will soon have audio, video and written materials specifically for hams teaching beginner and upgrade classes. Now that the Callbook has

taken over Radio School distribution, I will have more time for new code tape titles, new upgrade books, and a new instructor training program that gives the Elmer and instructor the tools they need to teach exciting Amateur Radio classes," adds West.

The new phone number and address for ordering Gordon West Radio School books and tapes products is: Radio Amateur Callbook, Inc., 925 Sherwood Dr., Box 247, Lake Bluff, IL 60044; (312) 234-6600.

Hams needing to ask "Gordo" any questions about training materials or the upcoming instructor program should write and call: Gordon West, Gordon West's Radio School, 2414 College Dr., Costa Mesa, CA 92626; (714) 549-5000, M-F, 10 a.m. - 4 p.m. (CA time). □

FCC Forum

PETE ONNIGIAN, W6QEU

Washington FCC bureaucrats Ralph Haller, N4RH (Chief of the Private Radio Bureau), and John Johnston, W3BE (Chief of Personal Radio Branch), led this session — along with the local Portland, Oregon Engineer in Charge — at the ARRL National Convention in September.

The timely FCC event of giving away 2 MHz to a package delivery system and a TV/radio rating service in the 220 MHz band was not really covered. Haller said that an ex parte situation would occur, since the matter is not closed, and further legal reconsideration is being asked of the Commission by the ARRL and others.

Haller said the 220 band has been stifled due to government sharing. Now the remaining 3 MHz will be for the exclusive use of amateurs. The entire 220-225 MHz may be used until the new rules become effective, which is not expected for some time — if the Commission does not have second thoughts.

On the plus side, Haller said amateurs gain some band space in the 900 MHz amateur band, and that both

10 and 18 MHz — which have excellent propagation now — are underutilized. There is a new rule making which will enable hams to use 100 kHz, from 18.068 to 18.168, effective July 1, 1989.

Haller stressed the need for amateurs to file comments on subjects that affect them. Otherwise, only government and commercial interests would appear before the Commission, and the Commission would not really know amateurs' needs and desires.

With regard to TVI and interference to your neighbor's new \$10 telephone and \$150 VCR, Johnston suggested that you work with your neighbor and solve the problem. If your neighbor won't cooperate, or even let you into his house, say so in writing to the Commission if you have received a formal FCC notice.

The Commission, he said, asks the complainant to identify the interference by looking at a TVI booklet which the FCC will mail out, to help him solve his own problems. In all cases, the FCC EIC will check your station before issuing quiet hours.

There was much interest in the Volunteer Examiners (VE) program. Johnston thought that cheating is less than 1%, or 500 out of 50,000 examinations. He added the VE who signs the certificate puts his name on the line, and if cheating is discovered, the U.S. Attorney gets involved! The FCC goal is to process the form 610 within 25 days for a written examination, although it now takes a bit long.

Less than 3% of eligible hams use repeaters, said Johnston. The medi-

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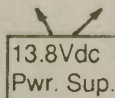
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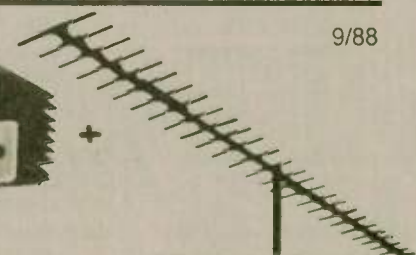
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What's the FCC doing now and in the future? Don't pay attention to the floating rumors. Here you get the answers from the man himself — John Johnston, W3BE.

FCC Forum

(continued from page 20)

um-sized crowd, estimated at 100, was delighted to hear that Packet rules "are not going to change unless new rules are required, and requested by the hams themselves."

Haller indicated that there have

been no special calls issued permanently to hams since 1978, and he would like to keep it that way. Briefly, he stated the notice of proposed rule making issued last March would change the Part 97 Rules which govern amateur operation.

He thought the proposed changes would eliminate 80% of the present regulations, which are more than 40 years old, a patch work, and in many cases ambiguous. Haller wants more leeway for amateur experimental work, citing packet and other modes.

He also told the audience he wants public service along International Telecommunications Union guidelines. He wants to reduce the types of radiation emissions, which now total about 1,300 to just nine!

It's OK for hams to sell ham gear to each other, but one cannot become a dealer in doing this!

The Novice enhancement program is working well. During the past 15 months, 82% have gone on to Technician.

He added that Amateur Radio is growing, regardless of what a certain ham publication's editor says, as Techs have grown by 110% and Extras by 7.2% during the past year alone. □



Mary Lou Brown, NM7N, related what it's like to go on a DX-pedition.



Phil Chaney, W4NWZ, who when not on the amateur bands, chases the bad guys, talked about Electronics and Communications in the FBI. He was recruiting.

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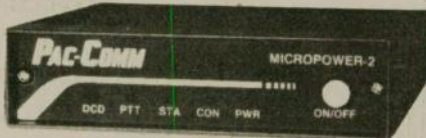


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AWARDS

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Richard G. Chichester Memorial Scholarship (\$900) — William J. Hulka, NU9K, Kokomo, IN

Edwin S. Van Deusen Memorial Scholarship (\$500) — James D. Weldon, N1DFQ, Marlboro, MA

QCWA Memorial Scholarships (\$700 each) — Annette J. Barnhart, N3DKT, Mt. Pleasant, PA; Douglas M. Benish, N3CXB, Pittston, PA; John G. Eye, N0HWD, Isle, MN; David A. Hart, N7FYT, Bellingham, WA; Patrick W. Jungwirth, WG6L, Visalia, CA

QCWA Leo Meyerson Family Living Scholarship (\$700) — Douglas E. Swiatlowski, KA2KMT, Camillus, NY

QCWA Robert S. Cresap Memorial Scholarship (\$700) — Diane E. Willem, KE8DJ, Elyria, OH

Radio Club of America Scholarships (\$500 each) — Gerard Hart, KC2OJ, Hampton Bays, NY; Martin J. Van Der Burgt, KA9MSR, Kaukauna, WI

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Young Ladies' Radio League Scholarship — (\$750) — Carol A. Dunlap, N1EHS, Southwick, MA

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DARA scholarship winners

Four young amateurs are in college this fall, with a big assist from the Dayton Amateur Radio Association (DARA).

The four are this year's winners of the annual DARA scholarships. Each student received \$1,000, to be applied to the tuition at the school of their choice.

Selected this year from a fine group of high school graduates are: Lynn Bailey, KA8PWD, Princeton, WV; Ross Lepaine, WG7I, Walla Walla, WA; David Milthaler, N8FGX, Tipp City, OH; Scott Sterling, KA8UGM, Coldwater, MI.

The DARA scholarships are open to any FCC-licensed amateur graduating from high school in the year the awards are given. There are no restrictions on license, class or course of study.

Applications are accepted from January 1 to May 15. The winners are announced on June 1.—Robert McKay, N8ADA

VFO: A verified UFO sighting
—Yakima ARC, WA

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Decisions of the Certificate Custodian, regarding interpretations of these rules as here stated or later amended, shall be final. All inquiries regarding applications or the certificate should be addressed to the Custodian as follows: Joan M. Gibson, KG1F; RR 1 Box 1465; Waterbury, VT 05676.

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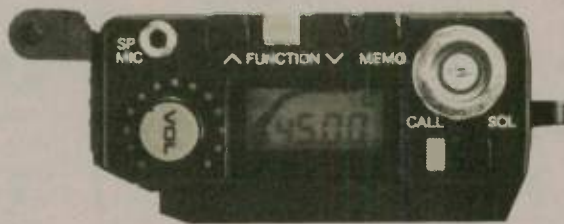
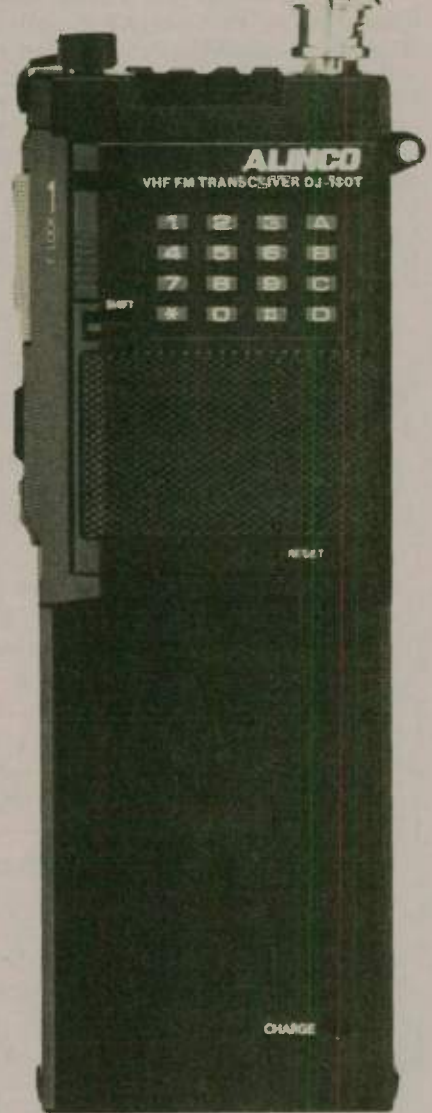
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Goldwater receives AEA award

Barry Goldwater, K7UGA, was presented the 1988 AEA Amateur Ambassador Award at the ARRL National Convention in Portland, Oregon. The award was presented by Mike Lamb, N7ML, president of Advanced Electronic Applications, at the convention banquet on Saturday, September 10.

After receiving the award and a check for \$1,000 from AEA, Senator Goldwater immediately presented the check to ARRL President Larry Price, W4RA. Price then announced the \$1,000 would be applied to the ARRL Fund for the Defense of Amateur Radio Frequencies.

The award is judged on the criteria of dedication to Amateur Radio, positive influence on those outside the Amateur Service, and initiation of special projects or programs to promote the Amateur Service. Previous winners were Mary Duffield, WA6-KFA, of California and Byron Lindsey, W4BIW, of Georgia.

Nominations for the 1989 AEA Amateur Ambassador Award will open on January 1, 1989. Contact



Mike Lamb, N7ML (left), presents the 1988 AEA Amateur Ambassador Award to Senator Barry Goldwater, K7UGA. (Photo by Bob Kuhn, KC7YN)

AEA for official application forms. The award will be presented at the ARRL National Convention in Dallas, Texas. □

ATTN: D-Day hams

The A.R.A.M. — an Amateur Radio club in St. Lo, France — is seeking U.S. amateurs who participated in the invasion of France in WWII on D-Day (or very shortly thereafter), landing on Utah Beach. The purpose is to join the A.R.A.M. Club on the air in a special 45th anniversary commemoration on June 6, 1989.

Please send an SASE with name, address, call, unit identification, and landing date to: Don Wagner, W2QFC, 308 Parkdale Ave., East Aurora, NY 14052-1619. □

Resistor tip: Here's a tip from George Lehtinen, W8IOC: When you grind or file a carbon resistor to raise the value, keep the ohmmeter clipped to it to keep a close watch for the change you want.

—Hiawatha ARA, Ishpeming, MI □

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Amateur "Hi"

Terry J. Taylor, WB5JFM, of Coral Springs, Florida is our December winner with this Air Force story.

In early 1975, I was receiving co-pilot training one day in an Air Force C-141, taking shots (touch and go's) at the runway. I had just finished my "turn in the barrel," so I sat in an empty navigator's seat and played with the HF radio while my partner took his shots.

I had a QSO with a gentleman in Charleston, South Carolina, which put me in contact with Charles Davis, WA5PGV, stationed at Charleston AFB, that would turn into a long, lasting friendship. Charles and Bob Ellison, WB4THH, introduced me to the world of 2M and AF MARS when I later arrived at the base.

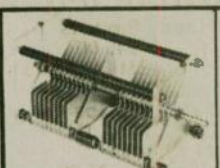
I learned a lot from these two more experienced hams, but they liked to pull tricks on me and take advantage of what I didn't know.

I had now become a Command Post Controller and had completed about half of my shift when in the evening things had calmed down considerably. I turned on the HT and found Charles and Bob chatting on the MARS repeater.

Bob was checked in on the HF MARS Gateway frequency, with net control in Germany, waiting for any phone patch or other traffic that might arise. Charles was also listening on Gateway. I chatted with them a couple of times on 2M, when I decided to pay a trick on them for a change.

I called the MARS operator in Germany on the telephone and asked for a phone patch with Bob. The conversation that followed was hilarious because I didn't tell Bob who I was. I asked how his dog, Baron, was getting along and how Charles was doing, while all this time listening on 2M at the two of them trying to figure out who I was and how I knew so much, supposedly from Germany.

I was able to anticipate their next question and befuddle their puzzle even further. My insides were rolling, and finally I gave in. We all had a great laugh and remained good friends despite going our separate ways in later assignments. □



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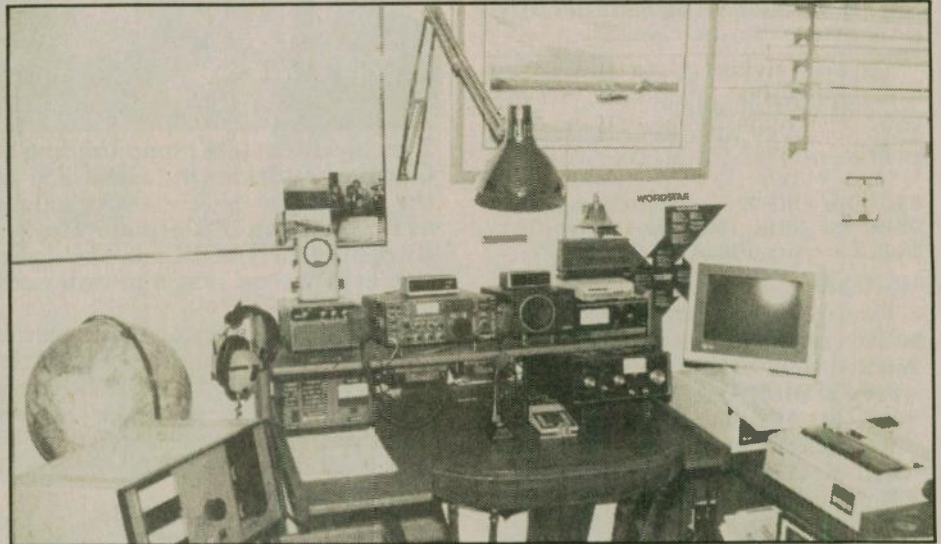


STATION APPEARANCE

DECEMBER WINNER

Stuart M. Hochron, KA2WMS

Send Worldradio a picture of your shack and the staff will choose a winner to receive a free one-year subscription! Stations will be judged by neatness (wires tucked away, etc.) and accessibility of equipment. Monetary value of equipment is not a consideration.



Stuart M. Hochron, KA2WMS, of Edison, New Jersey is this month's winner. His station is proof that one does not have to own a lot of fancy equipment or build a big console to have a neat and efficient ham shack. Here is a list of his equipment:

ICOM 745, HyGain rotor system with KLM tribander beam; Kantronics UTU-XT (used with AT&T PC), MFJ Versatuner V, Heathkit keyer, ICOM 27H and ICOM 37A, Henry 3K Classic amplifier, and ICOM radio patch (phone). □

Incandescent: What submariners do
—Yakima ARC, WA

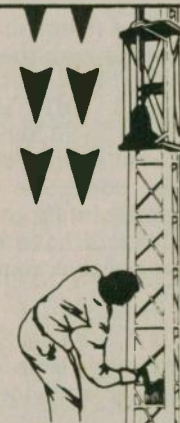
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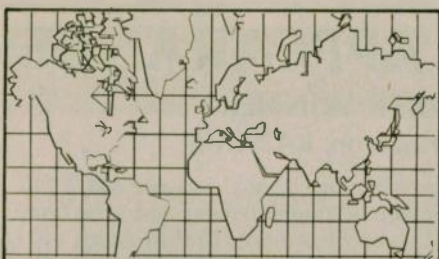
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DX WORLD

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Activities Calendar

19-20 Nov OVSV All Austria Contest (CW)
26-27 Nov CQ World Wide DX Contest (CW)

03-04 Dec URE Spanish DX Contest (CW)
03-04 Dec ARRL 160-Meter Contest (CW)
10-11 Dec ARRL 10-Meter Contest

W-100-N

The following DXers have been issued certificates for Worldradio's Worked 100 Nations Award:

- 344. W4BIM Dale D. Meyers
- 345. 3D2DM Dale D. Meyers
- 346. 3D2ER Raj Singh
- 347. K8IHX Wilber H. Baggett

No we didn't make an error here. Dale applied for the award under two different calls.

Viet-Nam (3W8)

If everything went as planned, this one should be on now through the end of November. A DXpedition by three Hungarian DXers — HA5MK, HA5PP and HA5WA, this is an all-band effort. The requested calls were to be 3W8DX for SSB contacts and 3W8CW for CW contacts. If everything works out, this will have been the first operation out of that country since the mid-1970's.

Bolivia (CP)

Not much to report on this one. Either no one needs it and doesn't bother reporting it to the DX bulletins, or the activity is sparse. Anyway, we found at least three:

CP1BA	14.222 MHz	0030 UTC
CP6IB	28.030 MHz	1600 UTC
CP6IH	28.543 MHz	1530 UTC

Liechtenstein (HB0)

An all-out effort was to have been made during the last World Wide DX



Two Liechtenstein amateurs had their picture taken a couple of years ago. Gunther Holzknacht, HB0CZS, who provided this photo, also included the newspaper article. Unfortunately, we cannot understand the language as it is written in German. The young fellow on the left is Gunther with Kurt Monz, HB0CPL, on the right. Kurt is president of the AFVL, which was established just a month earlier.

Contest by members of the Bavarian Contest Club, spearheaded by Dieter Schuster, DL8OH. They will be using the call HB0CZS, which belongs to Gunther Holzknacht, a very active DXer residing in the village of Schaan in Liechtenstein.

Dieter reports that a photo of the group will be available to any DXer who works them on at least five bands during the contest. (Europeans need to work them on six bands.)

While we are on the subject of Liechtenstein, there is an award available for working Liechtenstein stations. To qualify you need 3 points. Every contact with an HB0 station counts as 1 point, although a contact with HB0FL counts 2 points. Appended calls (reciprocal types) are not valid. All contacts made since June 16, 1986 count.

The fee for the award is 20 Swiss francs, (no U.S. dollar figure was given). Send your log extract with the fee to Liechtenstein Amateur Radio

Association, P.O. Box 103, FL-9493 Mauren, PRINCIPALITY OF LIECHTENSTEIN.

Membership in the Liechtenstein national society (AFVL) is around 18, but not all of the members are licensed for HF bands. Of the amount, we count only nine, which includes HB0MUO, HB0LL, HB0CZS, HB0UTA, HB0CPL, HB0MSU, HB0HTA, HB0MPQ.


Djibouti (J28)

According to *DX News Sheet*, Jean-Jacques, J28CW, is very active from Djibouti. His usual operating frequencies are 7.020, 14.040 and 28.030 MHz on CW. For SSB contacts he can be found near 7.090, 14.130 to 14.140, 21.225 and 28.550 MHz. The best time to look for Jean-Jacques is after 1300 UTC. For this part of the world, try 15 or 10M.


Other active stations from this one include J28DN, who has been found often near 21.310 MHz after 2100

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UTC, or down on 20M between 14.217 and 14.268 MHz after 0200 UTC. Three other stations have been reported at least once.

J28CY	21.018 MHz	1030 UTC
J28IN	14.195 MHz	0315 UTC
J28JO	28.015 MHz	1300 UTC

Jordan (JY)

Probably the most active DXer working out of Jordan recently is Jack, JY9LC, located in Amman. Most of his time is spent on 20M SSB after 0300 UTC between 14.175 and 14.185 MHz. He has also been reported on 10M near 28.521 MHz after 1530 UTC.

Of course, Jack isn't the only one heard on the bands from that one. The following is a list of a few others that have been reported recently:

JY3ZH	14.252 MHz	0445 UTC
JY4ZM	14.240 MHz	0330 UTC
JY5CI	21.279 MHz	1900 UTC
JY5DK	14.165 MHz	0130 UTC
JY5DL	14.015 MHz	2015 UTC
JY5EC	14.250 MHz	0330 UTC

From the list it appears that JY5DL is the only CW type. On 10M, JY5DK has been worked near 28.559 MHz at 1800 UTC in New England.

St. Pierre & Miquelon (FP)

According to *Long Skip*, F2DX — formerly F2EYS — will be residing at this one for the next three years, although we don't know what call he will be using.

There have only been three calls reported on the bands from St. Pierre recently. The most active one appears to be FP5DF, who has been on several bands. He has been reported on the low end of 80M working into Ontario. Try 3.508 MHz around 0245 UTC. Also, check 14.026 MHz around 1100 UTC, or on SSB between 14.177 and 14.233 MHz after 1545 UTC. On 15M this one has been reported on 21.027 MHz at 2100 UTC and 21.226 MHz at 1900 UTC. Not to leave out 10M, this one was found near 28.507 MHz at 2100 UTC.

On 40M, FP5HL was worked near 7.065 MHz at 0030 UTC. On 75M, FP5DX was worked on the West Coast near 3.794 MHz at 0600 UTC, and on 20M at 0030 UTC on 14.239 MHz.

Marshall Islands (KX6)

KX6DC is a club station on Roi-Namur Island in the Marshall Islands. According to *QRZ DX*, this one counts as IOTA OC-28 for those of you who are looking for islands to work. This station has been reported often in the various DX bulletins. Check near 1.833 MHz after 1000 UTC if you need a 160M contact with

the Marshall Islands. KX6DC has also been found on 40M near 7.007 MHz after 1100 UTC, and on 10M around 1000 UTC on 28.506.

On Kwajalein Atol, Dave Sublette, KX6DS, is also active. Dave, whose stateside call is K4TO, is often found handing out contacts during contest weekends. He has been responsible for many getting their first Marshall Islands contact on the top-band.

Others from this one keep things going from the Marshall Islands. Ken, KX6HE, has been found on 14.185 MHz around 1100 UTC working into eastern Canada. And, a little later in the day near 14.192 MHz, Bill, KX6HN, has been worked around 1300 UTC.

John, KX6AP, has been found on 14.227 MHz working into the Midwest at 0430 UTC, with club station KX6BU, busy on Kwajalein working on several bands. KX6BU has been reported on 14.037 MHz at 1115 UTC, 21.030 MHz at 0100 UTC and 28.490 MHz at 1015 UTC.

Central African Republic (TL8)

Looking through the DX bulletins we found at least six different calls for this one reported. Some of them have been reported more than once. Check the bands for the following:

TL8DN	14.160 MHz	2245 UTC
TL8DO	21.295 MHz	2145 UTC
TL8HW	28.480 MHz	1900 UTC
TL8JL	21.303 MHz	2045 UTC
TL8KH	14.177 MHz	1730 UTC
TL8LO	21.295 MHz	2145 UTC

Rotuma (3D2)

This one was introduced at the National Convention in Portland.

The DXpedition to Rotuma was scheduled for October 22 through November 5. A clarification in the DX-

R-X Noise Bridge



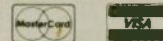
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- 4-digit access code - can use * up # down
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		Plus \$3.00 shipping & handling

CC rules allowed the addition of Rotuma to the DXCC country list, which is 287 miles from the nearest island in the Fiji Islands group. The operators scheduled for this DXpedition included Eric Scace, K3NA/VK9LT; Ed DeYoung, VK8XX/3D2XX; Kip Edwards, W6SZN; and Toni Zimmer, KN3T/VK9NT. The call to be used was 3D2XX.

At present, acceptance of Rotuma as a separate DXCC country should be no problem. We all hope that you were successful in working the team.

South Georgia Islands (VP8)

Presently there are two operators representing this one. Tony, VP8-BRR, is active from Bird Island, and should be there through March. The other operator — Steve VP8BUB — should be active for another year after that.

We understand that neither operator favors the pile-ups; they visit the various DX nets, such as the IN-DEXA Net on 14.236 MHz.

According to *DX News Sheet*, neither operator can work CW, so don't bother to request a CW contact. *DXNS* says, "Unfortunately the station will have to close down shortly for several months or the seals, which visit the island during the Antarctic summer, may eat the antennas!" Also, since that is mating season on the island, the seals would leave the antennas in shambles.

Zaire (9Q5)

Dick, WN7S, has been active signing 9Q5DX recently, mostly on 40M CW. Listen around the lower end near 7.005 MHz, from 0030 UTC. Dick has also been reported on 14.007 MHz at 2015 UTC, 28.011 MHz at 1245 UTC, and on SSB near 28.545 MHz at 1630 UTC.

Also active from the Republic of Zaire is Tom, 9Q5NW. Tom prefers the ragchew-type contacts and spends most of his time on SSB. Look for 9Q5NW on 21.250 MHz from 2000 UTC. Tom has also been worked on 14.226 MHz at 0530 UTC. You may have worked Tom when he was signing TN4NW. His stateside call is N4NW.

The *DX Bulletin* reports two additional calls found on 10M. On September 3, 9Q5AA was worked on

28.460 MHz at 2130 UTC in Pennsylvania. Those were the only reports we found for those two stations.

"Most Wanted" list

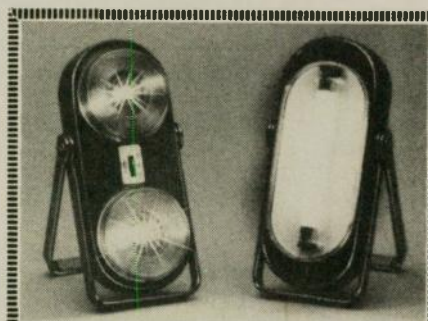
Once a year, *The DX Bulletin* makes a survey among its subscribers for the most wanted countries on the DXCC list. As of this writing, this year's list has yet to be released. However, others have capitalized on the idea — many of them individual DX clubs.

One such club is the Salt City DX Association. Located in the Syracuse area in upper New York state, the club has a membership of 30. We have listed the top 10 here. How does your club measure on this?

1. ZA	Albania	28 (93%)
2. 7O	South Yemen	28 (93%)
3. 3W	Viet-Nam	27 (90%)
4. 3Y	Bouvet Island	27 (90%)
5. XZ	Burma	27 (90%)
6. XW	Laos	26 (87%)
7. 4W	North Yemen	26 (87%)
8. YA	Afghanistan	24 (80%)
9. S2	Bangladesh	23 (77%)
10. 1S	Spratly Islands	23 (77%)

Antique QSL Department

Here are two more old-time cards from the collection of the late W9UX.



ALL PURPOSE LANTERN

When you're in an emergency situation, our clever lantern can be a real lifesaver! This multi-function unit features a fluorescent light and a signal light with twin flashers, and comes with an extension cord which plugs into your cigarette lighter. Ideal for car, boat, camper or truck. Power can also be supplied by "C" batteries. Perfect for Field Day, DXpeditions, hunting or camping, as well as power failures. Stands 8" tall with an adjustable stand. \$17.95 (NY residents include tax), ck. or m.o.

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Roy worked the Gold Coast 40 years ago on 10M CW and received a report of RST 578. The call ZD4AB was assigned to a T.F. Hall, of the Posts and Telegraphs Department.

Gold Coast became a deleted DXCC

DX Prediction

Maximum Usable Frequency from West Coast, Central U.S., and East Coast (courtesy of Engineering Systems Incorporated, Box 939, Vienna, VA 22180).

The numbers listed in each section are the average Maximum Usable Frequencies (MUF) in MHz for contacting five major areas of the world centered on Africa-Kenya/Nairobi, Asia-Japan/Tokyo, Oceania-Australia/Melbourne, Europe-Germany/Frankfurt, and South America-Brazil/Rio De Janeiro. Chance of contact as determined by path loss is indicated as bold MUF for good, plain MUF for fair, and in parentheses for poor. UTC in hours.

DECEMBER 1988 WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	(10)	11	14	(9)	13
12	(10)	11	13	(9)	13
14	(21)	11	13	17	33
16	27	11	19	(15)	40
18	27	(11)	22	(10)	42
20	22	(11)	29	(9)	43
22	19	28	35	(9)	40
24	17	30	38	9	33
2	13	25	34	9	18
4	12	14	18	8	16
6	(11)	13	16	8	15
8	(11)	12	15	9	14

CENTRAL USA

UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	(13)	9	14	9	14
10	(13)	9	13	(9)	13
12	28	9	13	18	25
14	36	9	22	20	38
16	38	(9)	19	18	41
18	28	(9)	(23)	(10)	43
20	23	(9)	30	(10)	42
22	20	22	35	9	38
24	17	19	33	9	28
2	15	(11)	17	9	17
4	14	(10)	(16)	9	15
6	(14)	(9)	(15)	8	14

EAST COAST

UTC	AFRI	ASIA	PCEA	EURO	SO AM
7	(13)	9	(14)	8	14
9	(13)	9	13	9	13
11	30	9	13	18	25
13	37	9	25	22	37
15	40	(9)	21	21	40
17	32	(9)	(22)	19	42
19	26	(9)	27	(11)	43
21	22	18	33	10	39
23	17	18	33	9	29
1	15	(11)	17	9	18
3	14	(10)	(16)	9	16
5	14	(9)	(15)	9	15

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ZD4AB

VERIFYING TELEGRAPHIC COMMUNICATION WITH W9UX
ON 2 NOV 49 AT 1650 GMT FREQUENCY 3.23 Mcs
SIGNALS RST 579
OR The 900 to card
73 in hall Tom

country in 1957, and is now represented by Ghana (9G1). Roy's card arrived via the W9 bureau, then operated by John Schneider, W9CFT, of Wausau, Wisconsin. What became of Tom Hall is not known.

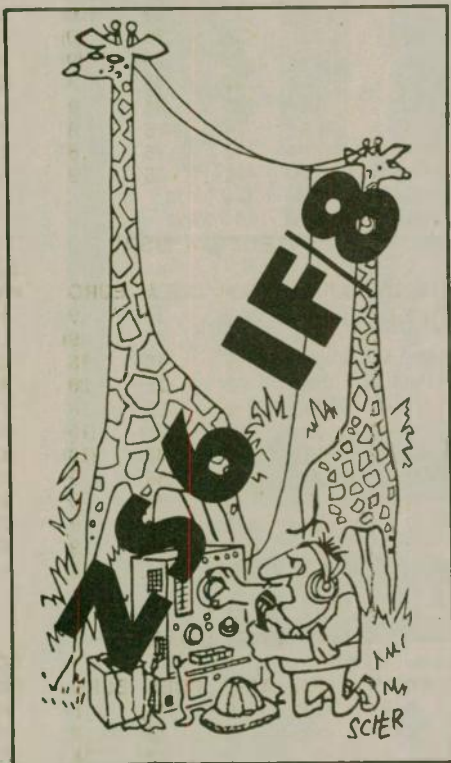
DXpeditions are nothing new, as we can see from the next card. Roy worked ZS6IF/8 of the Basutoland DXpedition on December 16, 1959.

ZS6 IF/8

BASUTOLAND DXPEDITION

TO RADIO W9UX CONFIRMING QSO AT 12.59
UR SIGS RST 579 QRG 14.21 Mcs
Tx 5763-807 Op ZS6IF LAMBERT LEDOUX
Rx HRO SPECIAL
ANT GROUND PLANE DOUBLET 73 dx DX
L-4 370

Front of QSL



Back of QSL

We checked our 1954 Callbook for ZS8 listings and found just a handful of calls. This probably justified a need for a DXpedition there five years later. Lambert Ledoux is not listed under

his ZS6IF call in the latest Callbooks.

The card was printed on yellow card stock with red call letters and black printing. Basutoland is now known as Lesotho (7P8).

QSL information

From *Sunspots* of the Redwood Empire DX Association, we are reminded that the post office no longer automatically sends airmail envelopes airmail, even with a 45¢ airmail stamp. Be sure to stamp or write in big letters the words AIR MAIL on the envelope.

It is also advised to leave off call signs on the envelopes — both your return envelope and the one you are


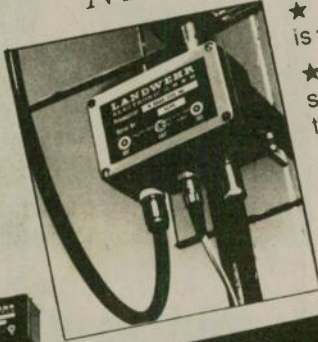
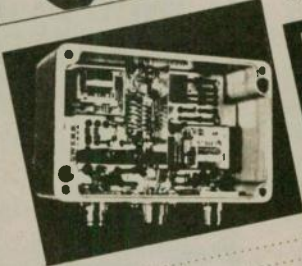
sending. This discourages the theft of money, which is very common in South America and the Far East.

We have always included our call sign on the return envelope, mainly as an aid to the QSL manager in his paperwork. Perhaps this is not necessary. Any QSL manager care to comment on this?

Inside DX had an interesting comment on the use of green stamps. It seems that Rashid, 3B8FP, had been answering his direct QSL requests, and had taken the IRC's and green stamps (U.S. \$1 bills) out of the (please turn to page 34)

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Frequency Range.....

Noise Figure.....

N GAS xxx MA.....

Gain.....

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Maximum Transfer Power (PEP) PTT Operation.....

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(602) 242-3515
Bob Mgr. K7RDH
East of Hwy. 17

SAN DIEGO, CA 92123
5375 Kearny Villa Rd
(619) 560-4900
Tom Mgr. KM6K
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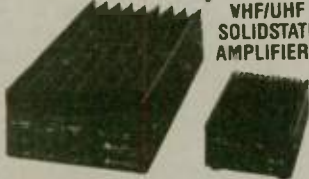
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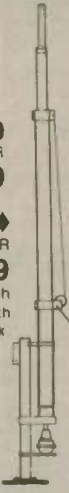
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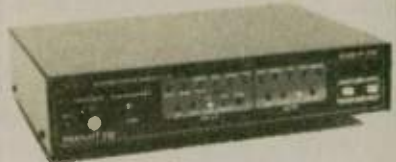
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DX World

(continued from page 31)

envelopes and put them into piles. He then took the green stamps to his local bank, and it turned out that several of them were counterfeit. He was informed by the bank that if it happened again he would be prosecuted for counterfeiting.

This sounds rather strange to us. Why counterfeit a dollar bill? It's not worth the effort. Unless someone else made copies of the green stamp where many unfamiliar with U.S. currency would be unsuspecting. Then maybe the band didn't want to be bothered with currency other than their own.

Therefore, if you use green stamps and are not an American, make sure you know where the green stamp is coming from.

QSL routes

AH0B	-JA2VUP	FP2DF	-K2RW
C30DSA	-OH3TY	FP/WB9LVV	-WD9BHB
C30EAM	-DL4ZBK	G4PET/HH2	-G4PET
C30LFK	-DJ1RL	G4PEU/HH2	-G4PEU
D68JL	-AK1E	GU4CJG	-G4APA
E8AAGD	-OH6DK	HC5K/HC8	-KTIN
ED3EPL	-EA3CUU	HL9AJ	-N6TP
ED9IA	-EA7BUD	HL0TF	-WB0DUL
E14VDT	-W1WA	HL88LW	-HL1LW
FG6DX	-WB7RFA	HL88SOYC	-HL4S
FH5EG	-F6EZV	HX1LAW	-FD1LAW
FO0SSJ	-K8JRK	IA6KBA	-IA6PLB

J6CQ	-W5PWG	VP2ET	-K6RX
J6LST	-K4PJ	VP2MBK	-K8UE
J6LSW	-K4LTA	VP8BRR	-G4YLO
J6LTA	-K4LTA	VP8BRT	-G4WFFZ
J28CW	-FC1EPO	VP8BUB	-G4YLO
J34A	-W5PWG	VQ9XF	-NG7X
J34LTA	-K4LTA	VR6MW	-N20E
J34J	-K4PJ	VS6WO	-K9EC
J34WG	-W5PWG		
J34YL	-K4LTA	W1WA/GU0	-W1WA
J74A	-W5PWG	W5PWG/J6L	-W5PWG
JT1BR	-JT1KAA	WE5P/J6L	-WE5P
LS9F	-LU1FT	XL3IG	-AC8W
LU6EAS/Z	-LU6DNH	YB3ASQ	-W7TSQ
PJ0J	-K4PI	ZF2JR	-N6RJ
RV0YF	-RB7GG	ZF2LW/8	-N6KNN
SV0FI	-KC1BJ		
T28RK	-K8JRK	ZK1CY	(See Note 1)
T50DX	-I2J8B	3B9FR	-W6KNN
TU4BR/5U7	-DJ6SI	3D20M	-F6FNU
TZ0MAR	-DJ6RT	3D2YL	-WA5Y
UD6DKW	-W8HNC	4N9P	-N6IMW
UJ8JCM	-UJ8JCQ	5K6P	-YU2BOP
UW4HM	-NR5Q	8P9X	-HK6LRP
V47Z	-W4MGX	8Q7MT	-K4FJ
VE8YQ	-WA9AEA	9Q6DX	-JA1DBQ
V08AC	-KA8SOF		-KQSS

CE0DFL	-P.O. Box 7, Easter Island, CHILE
L7D	-P.O. Box 35, Adrogue 1846, ARGENTINA
P29HS	-Hiroshi Suzuki, Rabaul Volcanological Observatory, P.O. Box 386, Rabaul, East New Britain, PAPUA NEW GUINEA
RF0FWW	-P.O. Box 21, Tbilisi 380002, USSR
TZ6RC	-R. Crowley, BP 3, Tomomuchi, MALI
UA10IL	-Gennady Kolmakov, P.O. Box 341, Omak 644099, USSR (See Note 2)
UC10WA/	-P.O. Box 59, Lisichanak 349900 Ukraine, USSR
RB9M	
9Q5AA	-John Murphy, ROC, APO New York, NY 09662-0006

Notes

1. Use the 1988 Callbook address.
2. This route requires direct only. Include 2 IRC's.

Contributors for this month include DL3SCJ, DL8OH, HB0CZS, W9LNQ, NZ9E, NE8Z, K8JRK, KD7EO, W5PWG, K3NA, KA3KWH, the Salt City DX Association (KB2G), Redwood Empire DX Association (VP2ML), QRZ DX (W5KNE), Inside DX (N2AU), The DX Bulletin (VP2ML), DX News Sheet (G4DYO), The Long Island DX Bulletin (W2IYX) and Long Skip (VE3IPR).

The first weekend in October we were busy in the annual California QSO Party operating from rare Sierra County. It was the first time in 13 years that we have operated from there.

We used the Worldradio Butternut vertical which seemed to work out fairly well. We had brought everything we thought we might need, including a lot of items we didn't need. What we didn't bring was a soldering iron — and we needed it. Anyway, we got by without making a necessary soldered connection. How? Hey, remember, DXers are hams too! We improvise.

Don't forget the end of November,

with the annual CW part of the World Wide DX Contest. GL DX es 73, de John N6JM. □

Past W-100-N winners

(continued)

Call	Name	Issue listed
275. K6TEH	Cliff Wiley	7/86
276. NN5G	Kenneth L. Clark	7/86
277. YC0DNK	William Tanujaya	9/86
278. YC0DPZ	M. Sibarani	9/86
279. KA5TQF	David Zulawski	9/86
280. W6UVW	Harold M. Rowlette	10/86
281. KA2NRR	Martin Smith	10/86
282. N61BP	Paul K. Minning	11/86
283. VK4ATQ	Brian Pittman	11/86
284. YB5NOF	John E. Daluas	11/86
285. KD9NT	Norman Wald	11/86
286. KU9I	Fred M. Pfeiffer	11/86
287. W3BHM	William E. Arnold	11/86
288. WB4FOT	John T. Fitzpatrick	11/86
289. K6PKO	Jerry A. Chandler	11/86
290. WB9NOV	Frank L. Holliday	12/86
291. N5GAP	Carol G. McClure	12/86
292. KB1HC	Robert A. Voss	12/86
293. W9ZGP	Jerry Frieders	12/86
294. WA4FWH	Robert L. Plunkett	12/86
295. W5ORM	John C. Goggin	12/86
296. EL2AY	Kamal T. Hamzi	1/87
297. WQ5Y	W. David Paperman	1/87
298. KB9OC	Sus Musashi	1/87
299. KZ4V	Charlotte Prince	3/87
300. KA6A	James J. Coleman	3/87
301. N8DDL	Walter H. Jones	3/87
302. AC3T	Len Moncaleri	3/87
303. KC1BJ	Edward N. Sirois	3/87
304. N2AMJ	Marvin Thomas	3/87
305. YC4FRX	Cholid Sanjaya	4/87
306. KU0S	V. H. Veenhis Vernon	4/87
307. K6SPQ	Bill Wortell	4/87
308. WB5MTV	Geoffrey K. Kolb	4/87
309. YC4HA	Farijal Hoesein	5/87
310. K9HDZ	James R. Churchill	5/87
311. NI9C	Barry J. Rueckert	5/87
312. W4BKP	Charles J. Menk	5/87
313. KB1KA	Gary F. Powers	6/87
314. WD4HRO	Dennis L. Cornell	8/87
315. WB5TED	Richard E. Pruitt	8/87
316. PA3BWQ	Burghart A.W. Aries	8/87
317. OZ1KFQ	Hans Christian Jensen	8/87
318. N6ZU	Cliff Kurtz	8/87
319. YC0HOB	John T. Awuy	9/87
320. VU2SMN	Suhas Samant	10/87
321. YB3CN	Benny Wyenantea	11/87
322. JA3DM	Toshihiko Baba	11/87
323. W6DNY	Virgil J. McCluskey	12/87
324. KA6TFC	Milton J. Taggart	12/87
325. YC7DF	Chairil Hamid	2/88
326. W6BDD	Don Raduziner	2/88
327. DK4SY	Adolf H. Keppler	4/88
328. NJ0L	Richard J. Baker	5/88
329. W3HCW	Carl F. McDaniel	6/88
330. W3BBL	Coleman Murphy, Jr.	6/88

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2 " " " " " " " " " " " " " " " "	85 ft. "	\$62.00

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ANNOUNCING!

The 1989 Worldradio DXathon

ELIGIBILITY — All licensed Amateur Radio operators, worldwide.

DATES — Start: 0000 1 January, 1989. End: 2359 31 December, 1989.

Exceptions: No contacts made during the time frame of any DX Contest will be valid. This is to be a prestigious award program, made so by its difficulty.

BANDS — 80, 40, 20, 15, 10 meter bands, plus satellite/moonbounce frequencies.

MODES — Phone, CW, Digital (includes RTTY, AMTOR, packet), Visual (SSTV), and Satellite (includes moonbounce).

Five Bands/Five Modes equals DXathon.

CATEGORIES — There is only one category — Single Operator.

OBJECTIVE — Contact as many NATIONS on as many modes as possible. A NATION is defined as an entity with enough sovereignty to issue its own postage stamps.

VALID CONTACTS — A NATION may be worked but once, on each mode, regardless of the frequency band. This is not a five-band per mode contest.

SCORING — Final score will be the total number of NATIONS contacted on the various modes. Contact with your own NATION does not count. The highest possible score would be about 900.

SUBMISSIONS — Entries must be received by 1 February, 1990. No QSL cards need be submitted or received by the entrants. Send signed log extracts to:

WORLD RADIO

2120 - 28th Street

Sacramento, CA 95818 USA

Award winning logs will be published in *Worldradio*. Decisions of the DXathon committee will be final. The committee has the right to disqualify entries for violation of the letter or the spirit of the rules. By submitting an entry, the participant agrees to abide by the decision of the DXathon Committee.

AWARDS

World Champion — The World Champion will receive a trophy significant enough to honor the effort.

Gold, Silver and Bronze Medals will be awarded for the highest scores on each continent.

Certificates will be awarded for:
A.—The highest score in each NATION.

B.—The highest score in each USA call area.

C.—The top single-band score in A. and B. above.

D.—Technician/Novice scores as warranted.

E.—High scoring 4 mode, 3 mode, 2 mode participants.

Nations with the highest participation (weighted vs. Radio Amateur population) will be honored.

In case of ties, duplicate awards will be made.

A certificate of participation will be awarded each "radio athlete."

It would be appreciated if monthly scores were sent in for publication.

RULE CHANGES — Rules may be modified in time before the contest actually starts to reflect suggestions from potential participants. Send your suggestions to *Worldradio* at the above address.

Rules may be modified over the years to reflect feedback from the participants. Please send copies of this page to your DX friends.

331. NZ7D	Arthur M. Palmer	7/88
332. KB6O	Burton E. Swanson	7/88
333. WB4I	Joseph W. Bische	7/88
334. KI4FW	Frank Murphy	8/88
335. OZ1JNR	John Faxen	8/88
336. YB0BOK	Gunawan Wibisono	8/88
337. KB6FIW	Dustin P. Smith	8/88
338. KS8W	D. Brian Rockhold	8/88
339. KD3CR	Daven Kreifeldt	9/88
340. WA1ZIC	Frederick L. Covell	10/88
341. W6TUI	William Woody	10/88
342. KE6KT	Earl A. Mathison	11/88
343. N7JB	James D. Bradley, Jr.	11/88
344. W4BIM	Dale D. Meyers	12/88
345. 3D2DM	Dale D. Meyers	12/88
346. 3D2ER	Raj Singh	12/88
347. K8IHX	Wilber H. Baggett	12/88

Somewhere out there ...

No matter how fast technology advances, we're still stuck with some of the same old problems. For instance, I called up a firm in Europe that owes my company money. They assured me the check was in the satellite. — Robert Orben (Submitted by Walt Ottinger, NS8N)

—L'Anse Creuse ARC, Utica, MI

Unusual DX

This happened to Otto Dedrick, W6NGK, on one of his frequent shifts. He was working a G in the south British Isles.

In response to the usual questions from a group of interested small fry, he responded to the effect that he was "talking to Wales." This immediately sparked intense (and more than usual) interest on the kids' part.

The next questions came fast and furious: "What language do they speak?" and "How do you understand them?" ... "How many of them are

there?" and "Where are they?" Otto replied "England" and they responded, "Do you ever talk to them in the Catalina Channel?"

It was then he realized that the kids had him talking to WHALES!

—United RAC, San Pedro, CA

... TALK TO THE WORLD! ...



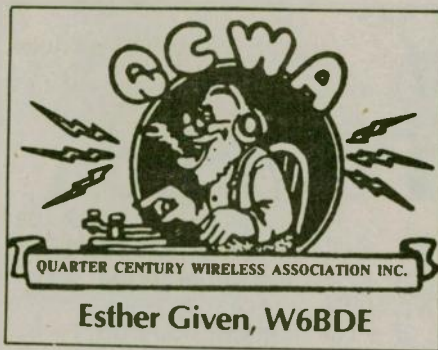
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The 1988 QCWA Conference, held September 23-25 in the McLean (Virginia) Hilton, was a huge success. The conference was preceded by a meeting of the Board of Directors on September 22. All officers, directors and the general manager were present for the board functions.

Conference forums included "Foundation for Amateur Radio's (FAR) Scholarship Program" moderated by Philip Russo; an FCC "Face the Amateur" session starring Ralph Haller, N4RH, Robert MacNamara and John

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Charter members attending QCWA's 1988 conference. Left to right: David Talley, W2PF; Ralph Hasslinger, W2CVF; Frank Lester, W4AMJ; and Clarence Seid, W2KW. (Photo by Wes Randles, WACOW)

Borkowski; and an ARRL Forum moderated by John Kanode, N4MM. Technical programs included "RFI" by Lew McCoy, W1ICP; "Antennas and Their Accessories" by Stu Meyer, W2GHK, and "Something New in Hi Power Amplifiers — A Super Rotator" by Robert Sullivan, W0YVA.

Guest speaker at the banquet was Ambassador Armin Meyer, W3ACE, who gave an excellent talk. Another highlight of the evening was presentation of awards. The 1988 QCWA Distinguished Service Award went to charter member David Talley, W2PF; the John DiBlasi Award went to another charter member, Clarence Seid, W2KW; and the National Meritorious Award was earned by Onie Woodward, W1ZEN, QCWA Activities Manager.

In addition to awards presented to members, Presidential Awards were made by Leland Smith, W5KL, to three individuals (not necessarily amateurs or QCWA members) whose endeavors had greatly benefited Amateur Radio: Byron Goodman, W1DX, for research, development and promotion of amateur single sideband radio telephone; Dr. Howard Beverage for his discoveries concerning amateur long-wire radio antennas; and Dr. John Kraus, W8JK, for the research and development of multi-band directional antennas for amateurs.

A certificate of appreciation was presented to Vic Clark Chapter 91, host of the conference. Chairman Jack Kelleher, W4ZC, Co-chairman Elmer Jones, K4EUX, and a hard-working committee of chapter members planned and presented one of the best events in QCWA history.

The Quarter Century Wireless Association's seven \$700 scholarships were awarded in August. QCWA congratulates these young people on their scholastic abilities and proudly introduces:

ANNETTE BARNHART, N3DKT, Mt. Pleasant, PA — Holds a General Class license and attends Notre Dame University, having transferred following three years at St. Vincent College. She spent her vacation working as a summer assistant with Allegheny Power Systems in their transmission planning section. Her dad is W3SII, and she was sponsored by QCWA member Mario Carrera, W3TTN.

DOUGLAS BENISH, N3CXB, Pittston, PA — An Extra Class licensee and sophomore at Penn State studying Electrical Engineering and Computer Science. His mother, father and two sisters are also licensed amateurs. Last year he received the 1987 Redington Memorial Scholarship sponsored by FAR. QCWA sponsor Ralph Lechner, W6QYE.

JOHN EYE, N0HWD, Isle, MN — Attends St. Cloud University, where he is a senior majoring in General Science. He has several interesting hobbies other than Amateur Radio. QCWA sponsor James Stinson, W0-MFI.

DAVID HART, N7FYT, Bellingham, WA — A senior at University of (please turn to page 39)

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SSD-6* 80-40-20-15-10M space-saver dipole-specify L 42' \$105, 52' \$105ppd
SSD-4* 80-40-20-15M space-saver dipole-specify L 46' \$93 \$80-\$96ppd
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ALABAMA

Montgomery Amateur Radio Club (W4AP). Alabama State Trooper Dist. Office. Intersection of Coliseum Blvd. & Federal Dr. Randy Smith, N4LZK, (205) 832-4598. Meets 3rd Monday/monthly, 7:00 p.m.

ALASKA

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

ARIZONA

Arizona Amateur Radio Club. Meets 2nd Thursday/monthly, 7:30 p.m. 1510 E. Flower St., Phoenix, AZ. Net: W7IO Information Net every Thurs., 7:00 p.m. W7WGW/R 147.88/147.28 Rptr.

Old Pueblo Radio Club. Meets: 2nd Wednesday/monthly, 7:30 p.m. Location: Franklin Bldg., University of Arizona. N.E. corner of 5th St. & Park.

Tucson Repeater Assoc. P.O. Box 40371, Tucson, AZ 85717-0371. 2nd Sat./monthly, 7:30 p.m., Pima Co. Communicaitons Bldg., 2545 E. Ajo. Net Thurs. 7:30 p.m. 146.28/88 (146.22/82, 147.68/08, 147.70/10-PKT).

CALIFORNIA

Amador County Amateur Radio Club. P.O. Box 1094, Pine Grove, CA 95665. Senior Citizens Center, Jackson, CA. Meets: 1st Thursday/monthly, 7:30 p.m. WA6WYI Rptr., 146.835, 146.235. Net Tues. 7:30 p.m.

Butte Amateur Radio Club. Meets: 3rd Thursday/monthly, 8 p.m., Chico Community Hosp. Conf. Center on Rio Lindo off Cohasset Rd. Net: 28.330 Wednesdays, 8:30 p.m. For info: 893-5208, KE6EP or KB6COH.

Caltrans RACES Club. Meets at Carrows Restaurant, 1825 10th St., Sacramento, CA, last Friday/monthly, 11:00 a.m. Contact: J.J. West, N6AAD.

Citrus Belt Amateur Radio Club. 777 East Rialto Ave., San Bernardino, CA. P.O. Box 3788, Zip - 92413-3788. Meets: 1st Friday/monthly, 7:00 p.m.

Contra Costa Communications Club WD6EZR. P.O. Box 661, San Pablo, CA 94806. Meets 2nd Sunday at 9:00 a.m. Hickory Post Restaurant/Lucky Lanes. For info call Don K6DPQ, (415) 222-2449.

Fresno Amateur Radio Club, Inc. P.O. Box 783, Fresno, CA 93712. Meets 2nd Friday/monthly, 8:00 p.m. Manchester School, 2307 E. Dakota, Fresno, CA. W6TO/R 146.34/94.

Gabilan Amateur Radio Club GARC. P.O. Box 2178, Gilroy, CA 95020-2178. Meets: South Valley Jr High School, 385 I.O.O.F. Ave., Gilroy. 2nd Thurs/monthly. 7:30 p.m. Talk-in 145.47/144.87.

Golden Empire Amateur Radio Society (VEC). P.O. Box 508, Chico, CA 95927. Club call W6RHC, Repeater 146.25/85. Meets: 3rd Friday/monthly, 8 p.m. at 1528 Esplanade, Room 110B, Chico.

Hilltop Amateur Mastertie System (HAMS). Informal mtgs. weekly/Mon. 5 p.m. at Shakey's Pizza, 12924 Washington Blvd., Mar Vista, CA. Meets 3rd Mon./monthly at Bicycle Shop Cafe, 12217 W. Wilshire Blvd., W. LA. Info, N6FD 213/823-0767.

Kern River Valley Amateur Radio Club. P.O. Box 2611, Lake Isabella, CA 93240 Meets 4th Sat./monthly at 4 p.m. (Pot Luck). Veteran's Hall, Lake Isabella WA6UYW Rptrs. 146.085/146.685 224.22/Down 1.6 WB6ODZ Rptr.-224.58 Down 1.6 Low-Level.

Lee DeForest Radio Club of Hemet. 1930 Local each Third Thursday at 625 Pico, San Jacinto, CA.

Livermore Amateur Radio Klub (LARK). First Presbyterian Church, 5th & L St. Bill Richards, WD6J, (415) 829-5229. Net Mondays 1900 on 147.12 + . Meets 3rd Saturdays/monthly, 9:30 a.m.

Marin Amateur Radio Club (MARC) W6SG. Box 1231, San Rafael, CA 94901. Meets 1st Fri./8 p.m.; MARC Clubhouse Bldg. 549, HAFB, Novato, CA (415) 883-9789 (Summer exceptions; contact Pete N6IYU, 924-1578). Sunday AM Club at Red Cross, San Rafael.

Moreno Valley Amateur Radio Assoc. P.O. Box 1304, Moreno Valley, CA 92337. Meets: 4th Monday/monthly, 7 p.m., Moreno Valley Unified Sch. Dist. offices, 13911 Perris Blvd., Moreno Valley. Net Tuesdays, 8 p.m. 146.655/055

Mount Diablo Amateur Radio Club. P.O. Box 23222, Pleasant Hill, CA 94523. Meets: 3rd Fri./monthly, 8 p.m., Grace Presbyterian Church, 2100 Tice Valley Blvd., Walnut Creek, CA. Net Thurs., 7:30 p.m. 147.06 + . Info, Vicki, (415) 458-4527.

North Hills Radio Club. P.O. Box 41635, Sacramento, CA 95841. 3rd Tuesday/monthly, 7:30 p.m., Carmichael Elks Lodge, 5631 Cypress Ave., Carmichael, CA. Net 145.19 Thur. at 8:00 p.m.

North Shores ARC. (619-275-1495) So. Clairemont Recreation Center, 3605 Clairemont Dr., San Diego, CA. 1st Tuesday/monthly, 7:30 p.m. Club net each Monday, 7:00 p.m. 28.485 MHz.

River City A.R.C.S. Meets: 1st Tuesday/monthly, 7 p.m. SMUD Bldg., Room B & C, Elkhorn & Don Julio, Sacramento, CA. For info: (916) 483-3293.

Sacramento Amateur Radio Club. Contact: Gary Bryant, KB6KZZ, (916) 646-1171. Meets Sacramento Blood Bank, 32nd St. & Stockton Blvd., Sacramento, CA, 2nd Wednesday/monthly, 7 p.m.

Sacramento "Old Timers" Ham Radio Brkfst Club. Meets 2nd Wednesday/monthly, 8 a.m., Carrows Restaurant near Watt Ave. and Hwy 80 exit. For info contact Paul Wolf, W6RPL (916) 331-1830.

San Gabriel Valley ARC. Bowling Green Clubhouse, 405 S. Santa Anita Ave., Arcadia, CA 91006. Meets: 1st Tuesday/monthly, 7:30 p.m., except Dec. W6QFK, Repeater 147.165/765.

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.

Santa Clara Valley Rptr. Society (SCVRS). P.O. Box 3085, Sunnyvale, CA 95087. (408) 247-2877. 146.76(-600 kHz), 224.26(-1.6 MHz), 444.60(+5 MHz). 2 meter/220 net Mon. 9 p.m. Mtgs.-3rd Fridays.

Shasta Cascade Amateur Radio Society (SCARS) P.O. Box 664, Anderson, CA 96007. Meets: 3rd Wed./monthly, 7 p.m. at the C.D.F. Conf. Rm., Grape St., near Parkview Ave., Redding, CA. Net 146.64 Wed., 8 p.m.

Simi Settlers Amateur Radio Club. P.O. Box 3035, Simi Valley, CA 93063. Meets: 2nd Thurs./monthly, 7:30 p.m., at Seventh-Day Adventist Church, 1636 Sinaloa, Simi Valley. Rptr. 147.93/33

Solano County Amateur Radio Society. P.O. Box 457, Fairfield, CA 94533. Meets: 3rd Wed. 7 p.m., Vanden High School. 441.150 + 5 (Remote 145.69 simplex) PL 77Hz, (707) 448-1461.

Sonoma County Radio Amateurs, Inc. Meets 1st Wednesday/monthly (except Dec.) at the Emergency Operations Center (behind the County Courthouse), P.O. Box 116, Santa Rosa, CA 95402.

South Bay Amateur Radio Association. Los Cerritos Community Center, Fremont, CA. Dick Melcher, WA6MDI. Call-in 147.615/015. Meets: 3rd Wednesday/monthly, 7:30 p.m.

Southern California Six Meter Club. P.O. Box 448, Cypress, CA 90630. USB Net Tue., 8:00 p.m., 50.150. FM Rpt. Net Thurs., 8:00 p.m., 52.28/88. FM Smpix Net Thur., 9:00 p.m., 50.300.

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, 223.68 MHz.

Tri-County Amateur Radio Assoc. P.O. Box 142, Pomona, CA 91769. Meets: 2nd Monday/monthly, 7:30 p.m. Pomona First Federal S&L, (basement), 399 N. Garey, Pomona, CA.

The Trinity County ARC. P.O. Box 2283, Weaverville, CA 96093. Meets 2nd Wednesday/monthly, at the CD Hall in Weaverville, 7:30 p.m. WD6FHX Rptr. 146.13/73.

Victor Valley Amateur Radio Club. P.O. Box 869, Victorville, CA 92392. Meets: Victor School Board Room, 6th & "A". 2nd Tuesday/monthly, 7:30 p.m. WA6EFW Rptr. 146.34/146.94.

West Coast Amateur Radio Club. Fountain Valley School. Taibert/Bushard. Fountain Valley, CA. Meets 3rd Thursday/monthly. 145.44-4Z.

Western Amateur Radio Assoc. Cerritos Park East, 166th St. and Carmenita Ave., Cerritos, CA. Meets: 1st Tuesday/monthly, 7 p.m. Rptr., N6ME 145.40/224.18 MHz.

West Valley Amateur Radio Assoc. 18011 Saratoga — Los Gatos Road, Los Gatos, CA 95030. Meets: 3rd Wednesday/monthly, 7:30 p.m. W6PIY/R. Net Tuesday, 8:30 p.m.. 147.39 + , 223.96.

Yucaipa Valley Amateur Radio Club (YVARC). Gibraltar Saving's Community Room, 34880 Yucaipa Blvd., Yucaipa, CA 92399. Pres: Jack Prather W6KJP (714) 797-1276. Meets: 3rd Monday/monthly, 7:30 p.m.

CONNECTICUT

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

FLORIDA

Indian River ARC, Inc. (IRARC). 597 Capri Rd., Cocoa Beach, FL 32931. Martin Andersen Senior Center, 1025 S. Florida Ave., Rockledge, FL. Meets: 1st Thurs./monthly, 7:30 p.m.

Sarasota Amateur Radio Ass'n, Inc.
Meets: 3rd Tues./monthly, 8 p.m. on the 6th floor (board rm.) of the County Admin. Bldg., corner of 301 & Ringling Blvd. Club Rptr. W4IE, freq. 146.91/31, open to all. Phone patch *Up #Down. / Welcome.

South Brevard Amateur Radio Club.
P.O. Box 2205, Melbourne, FL 32902.
Meets 1st Tuesday/monthly, 7 p.m., Melbourne Library, 2275 S. Babcock St., Melbourne, FL.

HAWAII
Big Island Amateur Radio Club. P.O. Box 1938, Hilo, HI 96721-1938. Meets: 2nd Tuesday/monthly, 7:00 p.m., Helco Auditorium, 1200 Kilauea, Hilo. Talk-in on 146.76(-).

ILLINOIS
Chicago Suburban Radio Assoc. (CSRA). P.O. Box 88, Lyons, IL 60534. Meets 2nd Wed./monthly, 8 p.m. Community Rm. Clyde Federal Savings & Loan Assoc., 7222 W. Cermak Rd., North Riverside, IL.

Dupage Amateur Radio Club W9DUP.
Mid-America Savings & Loan, 55th & Holmes (55th St. near RT 83), Clarendon Hill, IL. 4th Monday/monthly, 7:30 p.m. Club rptr. 145.250 — 600 kHz.

Elgin Amateur Radio Society. P.O. Box 1351, Elgin, IL 60120. (WB9EEA President). Meets in EOC Rm. of Elgin Municipal Bldg. 2nd Friday/monthly, 8:00 p.m.

Fox River Radio League. Valley National Bank, Lower Level, Northgate Shopping Ctr. & RT. 31, Aurora, IL. (312) 584-4925 for more info. Meets: 2nd Tuesday/monthly, 7:30 p.m.

North Shore Radio Club. Meets: 2nd Monday/monthly. Net 8 p.m. Tues. Karger Center, 1850 Green Bay, Highland Pk, IL. WB9FRM Rptr. 147.345 + 600 (PL 1B). Info: NSRC, P.O. Box 1066, Highland Pk., IL 60035.

Northwest ARC/W9LM. Meets: 2nd and 4th Tuesday/monthly, 7:00 p.m., Oehler Funeral Home downstairs community room, Lee & Perry Street, Des Plaines, Illinois.

Schaumburg ARC (SARC). Meets: Schaumburg Park District Community Rec. Cntr. at Bode and Springinguth Roads, Schaumburg, Illinois. Third Thursday/monthly, 7:30 p.m. Net 28.350 8:00 p.m. Thursdays.

Six Meter Club of Chicago K9ONA.
Bank of Lyons, Lower Level, 8601 West Ogden Ave., Lyons, IL. 2nd Friday/monthly, 7:30 p.m. Club Rptrs: 146.371.97, 448.30/444.30.

INDIANA
Fort Wayne Radio Club. James Wolf, KR9U, P.O. Box 15127, Fort Wayne, IN 46885. The Salem Church. Meets: 3rd Friday/monthly, 7:30 p.m.

KANSAS
Kansas City Heart of America Radio Club. Red Cross Building, 211 West Armour Blvd. Meets: 3rd Tuesdays/monthly, 7:30 p.m.

MICHIGAN
Hazel Park Amateur Radio Club.
Hoover Elementary School-Hazel Park, P.O. Box 368, Hazel Park, MI 48030. 2nd Wed/monthly, 7:30 p.m. Sept. thru May. 147.51 Simplex Call-In.

Oak Park Amateur Radio Club. Oak Park Community Center, 14300 Oak Park Blvd. (same as 9 1/2 Mile Rd., west of Coolidge). Oak Park, MI 48237. 2nd Monday/monthly, 7:45 p.m. Talk-in on our 224.86 Mhz or 146.64 Mhz.

MISSOURI
PHD Amateur Radio Assn. Inc. P.O. Box 11, Liberty, MO 64068. Meets last Tuesday/monthly, 7 p.m. Red Cross Bldg. (816) 781-7313, Volunteer Examiner Coordinator.

NEBRASKA
Pioneer Amateur Radio Club (PARC).
P.O. Box 445, Fremont, NE 68025. Meets: 4th Friday/monthly, 7:30 p.m. at Keene Memorial Library, 1030 North Broad. Wed. ARES net 146.67 19:30 CDT/19:00 CST.

NEVADA
Frontier Amateur Radio Society (FARS).
Meets: 3rd Monday/monthly, 7 p.m., Denny's Restaurant across from Nevada Palace, 5318 Boulder Hwy. Net Mondays 7:30 p.m., 145.39 rptr. on Black Mountain. Club info, Jim Frye, NW7O, 456-5396.

Las Vegas Radio Amateur Club (LVRAC). Meets: 2nd Tuesday/monthly at 7 p.m., Nevada Power Building, Wengert Rm., 6226 W. Sahara Ave. (Near Jones). Net Tuesdays 8:00 p.m. on 146.94 MHz. Info: Call Lyle at 456-9510.

Nevada Amateur Radio Assoc. (NARA)
2333 Rodney Cir., Reno, NV 89509.
Meets: 3rd Tuesday/monthly, 7:00 p.m. at First Federal Savings & Loan Bldg., 2330 So. Virginia St., Reno, NV.

NEW HAMPSHIRE
Great Bay Radio Assn., WB1CAG. P.O. Box 911, Dover NH 03820. (603) 742-0130/755-2600. 2nd Sunday/monthly, 7:00 p.m. Dover Dist. Court. Talk-in 147.57.

NEW JERSEY
Bayonne Emergency Mgt. ARC (BEMARC).
16th St. & Ave. A Firehouse, Bayonne, New Jersey 07002. Rptrs: 145.430 & 224-280. Meets: 2nd Tuesday/monthly, 7:30 p.m.

Delaware Valley Radio Assoc. (DVRA). Our Lady of Good Counsel Church. 137 W. Upper Ferry Rd., West Trenton, NJ 08628. Meets: 2nd Wednesday/monthly, 8:00 p.m.

Gloucester County Amateur Radio Club (GCARC). Woodbury V.F.W. 1st Wednesday/monthly, 8:00 p.m., Woodbury, NJ. Talk-in 147.18/78. For info call K2JF (609) 589-2318.

South Jersey Radio Assoc. (SJRA).
Pennsauken Sr. Hi Sch. at Hylton Rd. & Remington Ave., Pennsauken, NJ 08109. Jan.-Oct. 4th Wed./monthly, 7:30 p.m. Nov.-Dec. 3rd Wed. due to Thanksgiving and Christmas. Talk-in 145.290 rptr. Club call K2AA.

NEW YORK
Genesee Radio Amateurs (GRAM).
N.Y.S. Civil Defense Center, State St., Batavia, NY 14020. Meets: 3rd Friday/monthly, 7:30 p.m. 147.285 + W2RCX.

Orleans Amateur Radio Club (WA2DQL). Meets: Office of Disaster Preparedness (CD), West County House Rd., Albion, NY 14411, 4th Wednesday/monthly, 7:30 p.m., 147.527-WA2DQL.

The Radio Club of J.H.S. 22, N.Y.C., Inc.
WB2JKJ, P.O. Box 1052, New York, NY 10002. 24-hr. hotline, (516) 674-4072. Non-profit org. uses Amateur Radio to enhance education of young people, nationwide. Join us — "Classroom Net", 7.238 MHz, 7 a.m. E.S.T. PSE QSL!

Westchester Amateur Radio Assoc. (WARA). Scarsdale Village Hall, Scarsdale, New York. Meets: 1st Wednesday/monthly, 8:00 p.m. For info call B. Dubbs, Pres. (WA2FSR). (914) 725-1191.

NORTH CAROLINA
Raleigh Amateur Radio Society, Inc. P.O. Box 17124, Raleigh, NC 27619. Club net nightly, 8 p.m., W4DW, 04/64. Meets: 1st Wednesday/monthly, 7:30 p.m., YMCA. 18th Annual Hamfest, April 16, 1989.

NORTH DAKOTA
Fox Amateur Radio Club. United Hospital, Grand Forks, N.D. Call-in 34/94. Meets last Tuesday/monthly, 7:30 p.m.

OHIO
Amateur Radio Fellowship (ARF).
N8HUN, Linda Delugach, Sec. P.O. Box 2486, Streetsboro, OH 44241. Meets: 1st Sat./monthly at Kent Wally Waffle. N8HPI rptr. 147.675/075.

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

Northern Ohio Amateur Radio Society (NOARS). K8KRG/WB8JBM, P.O. Box 354, Lorain, OH 44052. Meets 3rd Mondays/monthly, 8 p.m. at Gargus Hall. Info: George, WBANM, (216) 933-2841. Ohio's largest general interest club.

OREGON
Salem Amateur Radio Club (SARC).
Northwest Natural Gas Auditorium, 3123 Broadway N.E., Salem, Oregon 97303. Talk-in 146.86. Meets 4th Tuesday/monthly, 7:30 p.m.

PENNSYLVANIA
Butler County Amateur Radio Assoc.
Meets: 1st Tuesday/monthly, 7:30 p.m. at Red Cross Bldg., 312 Mercer St., Butler, PA 16001. Call-in 147.96/36

Mercer County Amateur Radio Club W3LIF. P.O. Box 996, Sharon, PA 16146. Meets: 4th Tuesday/monthly at 7:30 p.m. at Shenango Valley Medical Center, Farrell, PA. Net, Thursdays 8:45 p.m. on 147.75/15 W3LIF/R.

VIRGINIA
Southern Peninsula Amateur Radio Klub (SPARK). Meets: 1st and 3rd Tuesdays, Salvation Army Community Bldg., Hampton, VA. Operates 148/13 146.73/13 Rptr., VEC Information (804) 851-5573.

WEST VIRGINIA
Jackson County Amateur Radio Club.
D. Geneal Bailey, NK8P, Sec.-Treas. 113 Winters Dr., Ripley, WV 25271. First National Bank of Ripley. Meets: 1st Thursday/monthly, 7:30 p.m.

WASHINGTON
Mike & Key ARC K7LED. Good Neighbor Center, 305 So. 43rd Street, Renton, WA 98055. Meets monthly on 3rd St., 10 a.m.

North Seattle Amateur Radio Club (NSARC). Meets: 3rd Tuesday, 7:30 p.m., (except Jul. & Aug.) at the First Interstate Bank, 30th Ave. NE and NE 125th St. (Lake City) in basement. Info: Mike Jr., W7WHT, (206) 282-1438 or P.O. Box 20279, Seattle, WA 98102.

WYOMING
University ARC. 146.01/61 Meets: 1st Tues., 7:30 p.m. Sept.-May. U.W. Physical Plant Bldg., 15th & Lewis St., P.O. Box 3625, Laramie, WY 82070. June-Aug: Bernie Club picnics Wednesdays.

WEST GERMANY
Wiesbaden Amateur Radio Club (WIESARC), DA1WA. Meets 2nd Tuesday/monthly at Stadion Restaurant, Wiesbaden. Steve Hutchins, DA2HS, Box 4205, APO NY 09633. PH: (011) (49)-6725-3462. American and German members.

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

QCWA

(continued from page 36)

Washington where, in addition to studying Electrical Engineering, he is active in sports, Amateur Radio and earns excellent grades. Hart also comes from a ham family. QCWA sponsor Mary Lewis, W7QGP.

PATRICK JUNGWIRTH, WG6L, Visalia, CA — Holds an Extra Class license and Associate Degrees in Engineering and Mathematics. He now studies Electronic Engineering at California Polytechnic State University. Other hobbies include computer programming and general electronics. His QCWA sponsor is Earl Rouse, W6ZZC.

DOUGLAS SWIATLOWSKI, KA2-KMT, Camillus, NY — Was awarded the Leo Meyerson Family Living Scholarship, a new QCWA scholarship for 1988. He attends Clarkson University, where he is a senior majoring in Electrical Engineering. QCWA sponsor Dr. James Mozley, W2BCH.

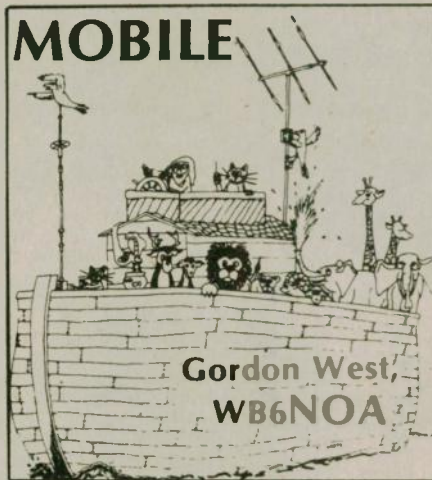
DIANE WILLEMIN, KE8DJ, Elyria, OH — Received the Robert S. Cresap award. A graduate cum laude in Electrical Engineering from Notre Dame, she is working toward her Masters in Bio-Medical Engineering at Case Western Reserve University. She comes from an all-ham family and was sponsored by QCWA member Donald Sealy, W8QKO.

A QCWA luncheon was held during the ARRL National Convention in Portland, Oregon. The event was a sell-out since only the first 170 members signing up could be accommodated. Many wishing to attend were turned away, including Director Lew McCoy, W1ICP.

QCWA President Leland Smith, W5KL; Secretary Jim Walsh, W7LVN; Director Art Kay, W5APX; and General Manager Ted Heithecker, W5EJ, were present.

The luncheon featured a reunion for Northwest Chapter 4, the first QCWA chapter formed in that corner of the country. Many members of spin-off chapters such as Beaver State (Oregon); Crater Lake (Oregon); Dogwood (British Columbia, Canada); Northern Lights (Alaska); and Treasure State (Montana) enjoyed renewing old friendships.

A QCWA booth was manned by chapter members of the region and ably assisted by the national QCWA dignitaries attending the Portland ARRL Convention. Through their efforts, 42 new QCWA members were enrolled — including two life members. □



Self-contained HF SSB

Build your own portable high-frequency SSB communications center into a fiberglass case that floats! Run 1-30 MHz, 100W output, using a conventional ham SSB rig in one nice, neat package.

Whenever I travel to distant parts of the country, or crew on a boat making a long trip, I always bring along my "Gordon special" completely portable SSB station. It's simple to operate and easy to put together. Here are the details:

Purchase your waterproof and airtight fiberglass case from a company called Pelican Products, 2255 Jefferson St., Torrance, CA 90501; (213) 328-9910. They offer many different sizes of cases, but the one I like is their small model, which is similar in size to a very fat briefcase. Close it up, and it floats! It's also airtight.

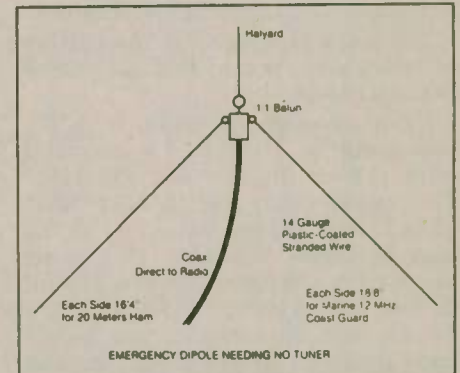
They give you a built-in purge valve

in case you need to open up the case on an airplane, too. Prices run from \$100 to \$300. Remember, these fine cases are absolutely waterproof.

Now select your HF SSB rig. You need an ultra-small set that will fit nicely into the little foam squares inside the case. The ICOM 735 is what I use. The Yaesu 757 or 747 models also fit nicely. The Kenwood series 140 and 440 are a bit too wide for the smaller waterproof cases.

Once you have your tiny HF ham set (or for that matter, any small VHF or UHF transceiver) nested inside the foam rubber cubes in the case, you need to plan your 12V power system.

I can run my set-up for half an hour using a Yaesu rechargeable gel-cell



Emergency dipole needing no tuner

Model NP-612, which is rated at 12V at 6 amp hours. These batteries are available from most burglar alarm companies. They are completely sealed, and nothing spills out. They can recharge within hours.

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The only amateur radio antenna made specifically for use on the ocean. Non-magnetic stainless steel mast and nickel-chrome plated bronze fittings make it virtually corrosion-proof. Operate on 10, 15, 20 and 40 meters without making any antenna changes. A resonator for 75 meters is available as an accessory. A special marine mounting fixture for deck use is also available.

For use on commercial marine frequencies add our MaritimerTM Adapter Collar and three special resonators. Choose from 8, 12, 16 or 22 MHz.

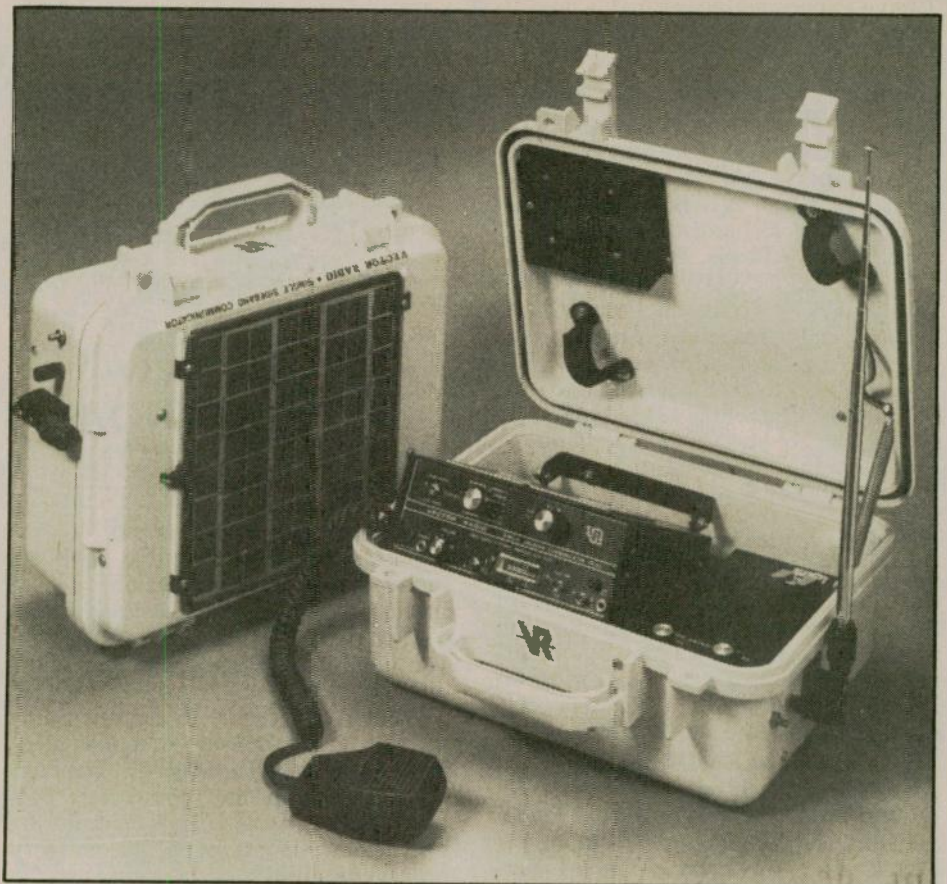
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I once talked for almost 30 minutes continuously before running down one of these 6A-hour batteries, inside the case. The battery weighs, and is about the same size, as a red brick. I have also operated my set-up on one of these batteries for up to three hours doing a lot of listening, and some talking, too.

Shorten up the lead on your ham set so it attaches easily to the red and black posts of this battery. Also connect a fuse-protected cigarette lighter plug to the battery. This allows you to recharge the battery quickly from any automobile cigarette lighter plug receptacle. Just plug your set-up into a running car, and you are back on the air. The battery also takes care of any voltage drop usually associated with automotive cigarette lighter circuits.

You could also recharge the battery at home, using a conventional gel-cell battery charger.

I can recharge my set-up from the sun using my flexible 1A Sovonics solar system Model "Sun Pal 110." This panel measures 18" x 12" x 3/8" when folded, and generates up to a full amp in bright sunlight. This panel won't fit in the case. However, it will fit into a backpack, and because it's flexible and lightweight, you barely know it's there. You can even run your



Vector Radio (Atlas-Oceanside, CA) portable SSB package in Pelican case.

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25 watts on 2 meters, 220 MHz, and 70 cm (10 watts on 6 meters and 1.2 GHz). 100 memories store frequency, mode, PL frequency, and repeater shift. RF speech processor. IF shift. IF notch filter. CW and FM wide/narrow IF filters. VOX. Noise blanker. Three-position AGC selection. Preamp switch for activating tower-mount amplifier. Offset display for measuring observed Doppler shift on DX links. Much, much more.

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HT off this set-up on high power transmit.

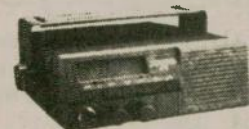
You have many options for your antenna. If you want everything to fit inside the case, rig up a couple of dipoles. For maritime mobile operation, I use two tiny dipoles — one for ham 20M and one for marine 12 MHz. The drawing shows you the appropriate lengths.

I don't use a balun to keep the weight to a minimum. Out on a life raft, I would drop one end of the dipole into the drink, and hoist the other end as high as possible for a perfect match.

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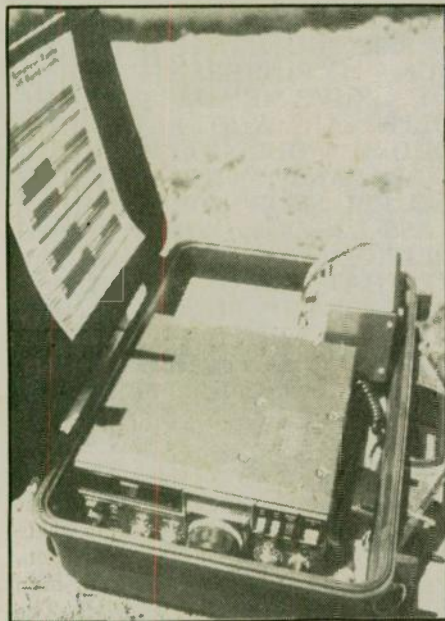
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Garden Grove, CA 92640-2321
Call (714) 638-8807 for more info

I have experimented with this, and it works great.

For mobile operation, single-band HF whips work nicely off a magnetic mount. The only problem here is you can't squeeze them into this nice, neat case. Only the dipoles will fit inside.

It's also a good idea to run copper foil from the base of your HF set to any good earth or water ground. This keeps any RF from biting you when sitting in the sand, operating beach-ball mobile.

I have taken my set-up down the Colorado River; and even though we got dumped, everything inside was bone dry. I have also taken this same set-up to Hawaii and talked home for up to a half hour while sitting on the shore under a palm tree holding up one end of my antenna system.

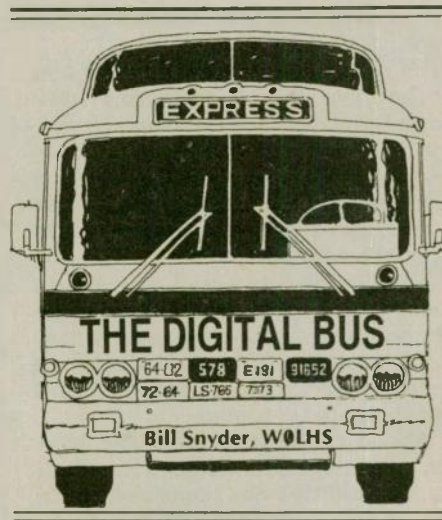


Ham set (NCG 3-bander) in water-proof case with gel-cell and AC/DC battery charger

I have also operated private-plane air-mobile by simply trailing half the dipole out the window. The thing load-up fine.

If you're looking for a unique way of going portable, this is it. □

OLD COAX CABLE: Have you priced copper braid used for grounding recently? You'll find it runs from 30 to 75¢ per foot, depending on width. For goodness sake, don't ever throw away any old coax cable before first stripping off the copper braid for future use. Again, this will save you some money. —*Bob Lasater, KA9-SEO; Sterling-Rock Falls ARS, IL*



For the last three years or so, I've been running a local bulletin board for the amateurs in the Red River Valley of the North. It's one of the two full-blown BBS's in the area. However, there are many personal BBS stations scattered from one end of the valley to the other.

My station has about 100 users plus a couple or minus a bunch. The reason I say minus a bunch is this: many times a newcomer will check in daily for a week or so, and that is the last we see of him.

So, in my years of experience as a system operator (SYSOP), I have divided packet hams into categories according to the way they use my BBS. I would say the biggest category is composed of those I label erstwhile. They are usually on packet now and then, but mostly not on anything.

The second category features the really dedicated packeteer. He leaves his outfit running 24 hours a day, he reads all the myriad of bulletins that come over the pipeline each day, and he experiments with the system so he can use it proficiently. He knows how to use the White Pages, and he is able

to use the National Traffic System with ease. This is the person who will be a real asset during any emergency. Unfortunately, this bird is a rarity, a very scarce commodity, and the one I would like to cultivate.

Class three is the everyday run-of-the-mill packet operator who leaves his rig on all the time, checks in daily, lists only messages addressed to his call sign, then says good-bye and logs out.

I sit and watch many of this class come and go, never reading the propagation forecast, the DX bulletin, the ARRL bulletins, etc. I wonder what good the BBS is doing them, because they never read anything except messages addressed to themselves and about 99.99% of the time, there is nothing addressed to them. I wonder if they really know that they could be in touch with the world, because I never see them explore the possibilities of a really great system.

Class four is limited to our area. It's a group whom I believe are mad at those of us who inhabit 145.01, the national frequency. They hang out on nearby frequencies, run their personal bulletin boards, ragchew a bit now and then, and when they stray over to our BBS, which is a rare occurrence, they usually use the wrong commands, get many "What?" questions from the BBS computer, and finally log off in disgust.

The whole packet picture is now starting to stabilize, the experimentation is dwindling, and I sometimes wonder if the whole effort of running a bulletin board for the area is worth it. So I simply run it for myself, and my valley neighbors get the side benefit. I really use it for traffic and information. It's great!

Of all those in our area who occa-

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sionally work OSCAR birds, I am the only one on packet. So I really use the AMSAT bulletins and information that come down the pike on packet. This has been a big help to me, as I get my "keps" from the packet chain, and I keep up with the AMSAT news although I get the AMSAT news in the mail.

I also read and use the propagation bulletins, the DX bulletin and all the ARRL information that is forwarded down to me by VE4BBS, for which I thank him publicly. Packet informational services make Amateur Radio much more pleasurable. And of course, I really enjoy the mail service provided by the hundreds of BBS operators around the world.

I have tried to get other locals to shoot messages to other hams around the country, but they don't seem to want to do it. I would like to show them how I have had messages from KL7VZ in Alaska in six hours through a combination of AMTOR and packet.

And if you think that is speedy, how about a message from my board through six relays to Tad Cook, KT7H, at Seattle, in just a bit over two hours? Of course, I don't brag about the mail to others that hasn't arrived in 30 days, but that wouldn't be nice, would it?

And so, I only wish I could get more of the users to keep up with the information that is available on my BBS.

The eagle roars

Speaking of KT7H, here is an edited message I received from him recently:

"I had a weird thing happen to me today. I was in my office — which is in a wooded area in Redmond, Washington. Just after 3 p.m., while I was talking on the speakerphone to a customer, there was a huge crash and I was showered with shards of glass. It was

caused by an eagle that flew through the window.

The poor bird was flopping around on the floor trying to escape back through the unbroken part of the window. There was blood and glass everywhere, and my office was in a shambles. Our maintenance man put on his heavy gloves and lifted the bird out of the window.

"I was really lucky, as I only have a minor wound to my scalp, but the experience really shook me up. It was also interesting trying to explain to the customer what they had heard over their speakerphone.

"About the eagle — he was later seen preening himself high on a fir tree, apparently none the worse for his glass-shattering experience."

AMTOR mailbox protocol

AMTOR fan George Winford, KL7VZ, brings up this question: "Why are there so many different protocols for AMTOR mailboxes?" I guess the answer is lack of a standard-setting body. I think this is a task the ARRL should take on.

George goes on to say in his packet message to me: "I suspect, though, that as programs such as APLINK gain wider use that we will see a decreasing number of protocols. After all, didn't packet get standardized very quickly? Those of us in AMTOR should call for the same thing."

Packet BBS addressing

For the last two months I have been talking up the use of ZIP codes for packet mail addressing. Well, I probably should have kept my mouth shut, for the latest WØRLI software has implemented hierarchy forwarding, using state postal abbreviations. This feature seems to work OK, although I just have begun to use it.

If every BBS has the right stuff in the forwarding file and uses Hank's software, the message will go when ad-

dressed like this example: W7VFR @ WA7EAQ.WA (the WA is the postal abbreviation for Washington State). I still, however, like ZIP codes for simplicity.

Eavesdroppings

I REALLY LOVE THE WONDERFUL CLUNKING NOISE OF MY NEW MODEL 15 ... I JUST BOOSTED THE POWER TO 59900 WATTS ... YOUR SIGNAL SOUNDS ABOUT LIKE FRYING EGGS — SAY ABOUT HALF A DOZEN ... MY ANTENNAS ARE FAVORING MY NEIGHBOR'S TV SET ... WHEN YOU'RE NOT S-9 YOU ARE S-1 OR SOMEWHERE INBETWEEN ... MY POWER COMPANY PRODUCES A VERY NICE GRADE OF THREE-PHASE QRN ... HAVE A GOOD WEAK END THERE OLD MAN ... NICE TO SEE YOU AGAIN DOC DOC DICK — MY FINGERS STUTTER A LOT ... GIVE ME A FIRST-CLASS POLITICIAN WHO SAYS OUT LOUD HE WOULD RAISE TAXES TO BALANCE THE BUDGET, AND I'LL SHOW YOU A FIRST-CLASS LOSER ... FUNNY HOW POLITICIANS CAN'T SEEM TO SEE THAT THE ONLY WAY TO BALANCE THE BUDGET IS TO RAISE TAXES ... AT A RECENT HAMFEST I SAW A DOG WEARING A HAMRADIO TYPE CAP WITH THE CALL LETTERS K9MUTT ON IT ... PACKET IS CERTAINLY BETTER THAN "SNAIL-MAIL." ... I GET MY AC POWER FROM A NICE ELECTRIC COMPANY WHO HAVE INVENTED A WHOLE BUNCH OF NEW KIND OF POWER LEAKS ... I HAVE TWO DIFFERENT COMPUTER KEYBOARDS, ON ONE I PUNCH THE WRONG KEYS, AND ON THE OTHER I HIT THE WRONG ONES I MISSED ON THE FIRST ... DX SEEMS MUCH BETTER RECENTLY, THE PILE-UPS ARE MUCH LOUDER AND WIDER.

One of my other hobbies is writing about railroad history. I belong to the Northern Pacific Railroad Historical Association, and I am starting a column in their magazine. I'd be interested in hearing from old telegraphers and other railroad types who have NP stories to tell.

My thanks to KZ6U, W7VFR, KT7H, and all those interesting people I eavesdropped on during the last month. If you wish to communicate with me, my mail address is Bill Snyder, 1514 So. 12th St., Fargo, ND 58103, or via packet WØLHS @ WØLHS. DIT DIT for the hams and TOOT TOOT for the rails. □

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New 6M EME records set

Jimmy Treybig, W6JKV, and Ray Rector, WA4NJP, set a new 6M EME record in the middle of September by working Graham Jonas, ZL2BGJ! Graham runs a multi-wire stacked rhombic antenna. This is the first-ever 6M EME contact between the United States and New Zealand. Jimmy, W6JKV, is pursuing a JA EME contact at present, with signals being heard but no contact as of yet.

DX info

If you QSO Dave Sublette, KX6DS, QSL to: P.O. Box 4563, Huntsville, AL 35815.

Bob Eckleberry, W4CKD, says Atze, J6LAH, should be on from 8R1 with an FTV-700 and 6M module for his FT-757's, a 5-element beam and Mirage amplifier.

Worldwide 6M F2 is steadily increasing. K6's recently QSO'd an FK in New Caledonia and a VK6. On September 20, at 1730Z, K1JRW and ZS3AT heard each other on 6M. At 1800Z, ZS3AT heard WB4SLM in Georgia. A JA2 QSO'd 5H1CT, Tanzania recently. AH6IO heard a ZS4 on September 24, at 0839Z during a VK6 opening. LU7DZ recently worked CT's, F's and G's.

ZS's are working across Europe. In the first week of October, they QSO'd Italian stations 10M/6M. There have even been 2M contacts between Europe and South Africa. We have been working CX's, HC's, HC8's, LU's, OA's and recently XE's for weeks.

OX6QX recently stated to K1JRW that he has 6M authorization. Tom Gregory, 9Q5NW, is said to have received the SB-110 sent by Tom, N4EJW, and will be on with it soon as he returns to Zaire. The rig for Dave Heil, J52US, (a Yaesu FT-620B) has

been shipped by SMIRK (courtesy of Pat Pugh, K7VAY, and Bob Billings, VE1YX) to Joe Burke, WA8OGS. Jerry, VP2EZ, and Peter Dewhurst, J73PD, are active on 6M. Chet, PJ9EE, is now on from Bonaire instead of Curacao. WB2CZB says Bert Fageol, KV4AD, will be active from Saba soon, as a PJ6.

Bo Geronne Christensen, OX3LX, says he had about 100W QSO's and some G's on one day this summer on Es. July 5, 1988, he had about 65 W QSO's and VE2KV. On August 5, he worked CT, F6, GD, GU, GW and a lot of G's, with a few W3's and W4's.

This is Bo's last year on 6M as he is returning to Denmark. He hopes 6M will be legal in his country by the first of next year so he can sign his OZ1DJJ call. If you need a QSL try his OZ1DJJ Callbook address.

You never know where Yoshi, JA1UT, will show up next. He sent a postcard from China, where he had been operating as BT5MH on 6M at Fuchou. He has been asked by Lhasa representatives to help them put a 6M station on there.

Peter van der Woude, PA3EUI, sent considerable information to Harry Schools, KA3B, who passed it on to me. Among the tidbits was this. An estimated 1,800 6M hams are active in Europe — mostly G's! CT, CT2, CT3, EI, F, G, GD, GI, GJ, GM, GM0, GU, GW, LA, OH, OJ0, PA, SU, SV, TF, TK, ZB2, 9H1 and 9H4 all have 6M privileges. That is 24 new DXCC countries on 6M.

HB9, HB0, LX, OE, OY, OZ and SM all expect to get 6M permission in 1989. That is seven more countries, which is expected to raise that 1,800 to 2,500 stations active next year.

Most countries have the first 2 MHz of the band, some more.

A full breakout of the eight pages of information is available from me for an American green stamp and an SASE. The dollar (or IRC's) is to cover the printing costs.

As you can see, what I have been saying about increased solar activity has been coming true. There is considerable activity around the Pacific, and between Africa and Europe. The first JA to KL7 contacts since Solar Cycle 21 have occurred.

There is increased activity between South and Central America and the southern United States. All that is lacking is the Europe and Africa paths to the United States and the Pacific to western United States paths. There is a recent report of reception of the W6 beacon in Tahiti for about a week straight, around 0500 to 0800Z, and the recent FK contact.

Turks & Caicos Islands DXpedition

Harry Schools, KA3B, will be operating from VP5, Turks & Caicos Islands, during the ARRL 10M Contest in December. He will be there December 8-13, and will attempt to log 6M time as well. Watch for Harry.

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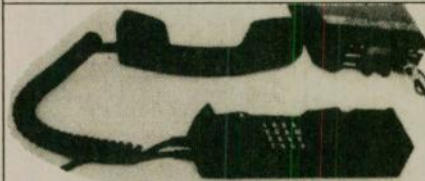
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SMIRK IGY Geophysical Solar Cycle 22 Program

SMIRK is pleased to announce our IGY Geophysical Solar Cycle 22 Program. Speaking briefly, we ask: 1) encourage operators in countries not now active on 6M to become so; 2) make arrangements to provide them equipment or technical assistance; 3) encourage them to get on the 28.885 6M coordination frequency for information and assistance; 4) report their activities or requests for help through their Regional Coordinators. It is our goal to far surpass the 114 countries that were active during the last cycle.

To help you, SMIRK is proud to announce its Regional 6M Coordinators. Ted Collins, G4UPS, for Europe. Hal Lund, ZS6WB, for Africa. Myself for North, Central and South America. Al Pacheco, KH6IAA, for the Central and Northern Pacific. Gil Sones, VK3AUI, for Australia and surrounding area. Dave Horne, ZL1AKW, for New Zealand and Zone 32.

If your country is presently not active on 6M, and you have permission to operate, but no gear, please contact the Regional Coordinator responsible for your area. Check 28.885, as you may find him there, or write him a quick letter asking for help. Those of you in these areas who are active on 6M can help the Regional Coordinator

by offering unneeded equipment for loan to needy countries. There is a DX-CC out there for someone!

Ted Collins, G4UPS, reports KH6-HSS/5N9 should be on by now with a FT-726R from Kaduna. The first OH/G's contacts were made on the morning the first OH permits were received — June 21, 1988. The TF3 beacon was on the air July 1-4, but developed a fault. When it goes back to TF, so will two 6M rigs — one for TF3JP, the other I don't know. The SM/OZ operators are expecting to receive 6M permission soon.

Dave Horne, ZL1AKW, reports they are working on getting A35 active. Mike, ZL3TIC, Christchurch, has 20 elements and 400 watts going for him. He also has remote capabilities where he can work his home station from the office! Phil, FK1TS, in Noumea, New Caledonia, has added a homebrewed MRF646 60W linear. Their winter Es season brought him mostly VK2, 3, 4's and FK1TS, June through July 23, 1988.

Canada Award

Here is the address of the manager of the Canada Award. Gary Hammond, VE3XN, 5 McLaren Ave., Listowel, Ont. CANADA N4W-3K1. Write him for full details on this very beautiful award. Thanks to Roger

Williams, W7DY, and Russ Patrick, W7IDZ, for the information.

Summer 1988 Sporadic Es totals
Pat Dyer, WA5IYX, has provided the Sporadic Es totals for August 1988.

Day	#openings	Minutes open
3	3	155
6	2	40
10	1	20
14	1	150
20	3	150
23	2	185
24	2	80
Totals: Open 7 days		14 openings 780 minutes

This brings the Summer Es season — May through August — totals to 64 days of openings for 129 different openings, and 8,020 minutes of Sporadic Es activity. This is the second best Sporadic Es summer for this part of the United States in this decade.

Last year when I was writing the December issue (in October), I forgot to wish you all a Very Merry Christmas and a Happy New Year. My wish for you (and me) is DXCC on 6M in 1989!

Remember: it feels better when you do it on 6. See you on the Magic Band all of a sudden! □



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10-10 INTERNATIONAL News

Chuck Imsande, W6YLJ
10-10 19636

More about numbers

A couple of months ago, I discussed the task of keeping track of all of the 10-10 numbers that we use. Most of us, and that did include me before I started looking into how 10-10 keeps our records, have no idea of the effort that goes into the issuing and maintenance of our records. It takes a lot of effort to maintain the records of 10-10 and each of us should have an understanding about this important task.

As 10-10 is a 100% volunteer organization, it first takes a lot of volunteers that are very involved in the issuing of a 10-10 number, and then when we upgrade or change our call, when we move to a new QTH, and yes, even when we eventually become a Silent Key (SK).

There are at least 14 of your fellow 10-10'ers who are kept busy in their spare time keeping track of all 50,000 of those 10-10 numbers.

Each of our District Managers, and there are 13 of them, are responsible for the original assignment of 10-10 numbers to new applicants in their district.

There is one manager for each of the 10 call area districts in the United States. There is one manager for VK and one for ZL and one other manager for the rest of DX land.

The District Managers receive a block of numbers — usually 100 — from 10-10's Records Manager, Lee Pasewalk, WB6MGM, 10-10 #309. The District Managers are the contact for each of us with the 10-10 organization, and they are responsible — in addition to issuing numbers to new applicants — for collecting our dues, keeping our address current when we change our QTH, keeping up with all the upgrades in call signs, and reporting SK's when they receive that information.

All of this information is forwarded by each District Manager to both Gerry Gross, WA6POZ, 10-10's Treasurer, and to the Records Manager, Lee Pasewalk, WB6MGM.

As you can see, it is not a "one-man job" to keep our 10-10 numbers in order and up to date. But the key to all of our numbers is one individual: Lee Pasewalk, 10-10's Records Manager.

Lee was first licensed in 1965, and joined 10-10 in 1967. His first volunteer job was District Manager for the 1st, 2nd and 3rd call areas. This was early in 1970. Later, when it was established that each call area would have its own District Manager, Lee became the manager for the 6th district.

The original Records Manager was Claude Martin, W6LRY (now an SK), 10-10 #309. In 1978, due to Claude's failing health, Lee took over the Records Manager job. At the time, 10-10 was issuing numbers in the 19000 series. So in just a short 10 years, 1978 to 1988, Lee has been responsible for issuing over 30,000 10-10 numbers!

As you may already know, 10-10 issued #50000 on August 28, 1988. Each month, when Lee gets the reports from each District Manager, he edits, corrects and prepares the necessary forms that he sends to our computer service for processing into the master computer record of 10-10. From this computer record, the address labels for the mailing of the 10-10 International News are generated, information for the roster is generated, and dues-when-due lists are received.

Lee does not use a computer to keep his records, but he does maintain all of the records in notebooks, including the original handwritten ones kept by our first Records Manager, Claude Martin.

Our computer records also contain a complete SK listing of all known SK members. At one time, when a member became a SK, it was the practice to

delete his call from the records. This has now been discontinued, and we now list the call with the notation that the member is a SK.

In 10-10, once a number is assigned, it is attached to the person and his call forever. One of the hardest jobs is to obtain and verify that a member has become a SK. To help in this task, Grace Dunlap, K5MRU — in addition to her other duties of 5th District Manager and VP Certificate Manager — provides a valuable service to 10-10 by checking QST and other sources for lists of SK's, and then checks these lists against the 10-10 roster to determine if the call was ever issued to a 10-10 member.

These lists are somewhat limited and do not necessarily list all hams who become a SK. Grace compiles a list of Silent Keys each month and forwards this to Lee for inclusion in the master records of 10-10. Each of us could help in maintaining our SK Membership List accurate and current by notifying Grace if you become aware of one of our members who has become a SK. Grace's address is Box 455, La Feria, TX 78559.

As you can see, even after the original issue of your number, it takes a lot of follow-up effort to keep the records current. Although keeping

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10-10's records is not a "one-person" job, as I have outlined above, one man does an extremely efficient and dedicated job in bringing it all together. Without Lee Pasewalk, WB6MGM, 10-10 could very well be chaotic as far as numbers go.

We all pride ourselves on our very own unique radio call, and the same is true about our very own unique 10-10 number. We owe a big "thank you" to Lee Pasewalk for his devoted volunteer effort of from 40 to 50 hours



Hard work earns him a radio license

Imagine the excitement of listening to Amateur Radio operators from all over the country! Although there are thousands of hams, this represents a dream come true for Michael Papa, 34, a disabled resident of Cheshire Home in Florham Park, New Jersey. Mike recently passed his Technician test with flying colors!

In order to learn the skills necessary to achieve this milestone, Mike worked for 2½ years with Cheshire Home volunteer George H. (Hank) Cooke, W2LOP, of Morris Plains. Mike has cerebral palsy, has no use of his hands and uses an electric wheelchair to get around. But this didn't stop him from doggedly pursuing his quest for a license.

To prepare for the test, George quizzed Mike every week on the intricacies of radio frequencies, electronic theory and Amateur Radio rules. Since Mike must use his mouth and head rather than his hands, they even jointly devised a mouthpiece which Mike could use to send Morse code!

Knowledge of radio lore is not Mike's only special talent. An active member of the Foot and Mouth Ar-

each month for keeping our numbers straight, our calls current and our addresses correct.

Finally

If you have not received your copy of the *10-10 International News* lately, it could very well be that your dues have expired. It is important that we all keep our dues current.

If you cannot find your District Manager's address, an SASE to me will get you the information. Forgot

your 10-10 number? I can help you with that also. Send me your current call (and any former calls), and I will send you your number. Again, an SASE please.

If you are new to 10M and wonder what this 10-10 number thing is all about, a "green stamp" (\$1) will get you an Information Package and Application Form. My address is 18130 Bromley Street, Tarzana, CA 91356-1701. Enclose an address label if you have one. 73 es cu next month. □

tists' Association for Disabled People, Mike paints landscapes using a mouth stick holder. He has taken several art courses in nearby community schools and has sold over 50 paintings to overseas buyers.

Mike has lived at Cheshire Home, a residential community for physically disabled adults, since its opening in

1981. He even met his future wife, Alice Fech — another resident — at Cheshire Home. The two were married in June 1986.

Alice and Mike live together in a "two-room suite" at Cheshire Home; one entire room is taken up with Mike's ham and computer equipment.

Plan ahead

Start planning now to attend the 1989 Dayton HamVention, to be held April 28-30. Hotel reservations are now being accepted; accommodations are placed on a first-come first-serve basis. In past years, rooms have been

completely booked by the beginning of the year.

Just one week prior to Dayton — April 21-23 — will be the 40th International DX Convention held at the Holiday Inn in Visalia, California. Sponsor of the convention is the Northern California DX Club. □

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Computers and Amateur Radio

Part V

Getting started in packet radio

VERN VALERO, ND1Z

The last installment of this series will describe what is involved in setting up a packet station. It will not explain the theory of how packet works or how one operates a packet station, only what is involved in getting a packet station on the air.

Why operate packet radio? Besides learning about digital communications, packet has a lot going for it. It is an error-free mode. Received information is not displayed until it is correct. It is also spectrum efficient. Due to the orderliness of the protocol, a single channel can support many concurrent QSO's. Finally, it is inexpensive to get started in packet radio these days. Many households already have home computers or terminals that can be used for display. The basic "packet box" price ranges from \$120 to \$300.

Let us assume that the decision has been made to become involved in packet radio. I would first suggest "playing" with either a friend's station or becoming involved in one of the frequent packet demonstrations given at Wellesley ARS meetings. This will give you the flavor of packet and an opportunity to learn some of the simple commands and procedures.

There are three major components to any packet station. They are the Terminal Node Controller (TNC), computer or display unit, and an amateur rig.

The TNC is a "black box" that handles all the protocol aspects of packet communications. The TNC maintains connections with other stations, retransmits when necessary, and of course, chops your messages into packets. The TNC has a small computer inside with a program to make it all work.

You communicate with the TNC with commands to do various actions (such as connecting to another station or listing out the call signs of the stations that have been heard recently). There are a number of "parameters," or values, that can be adjusted to make communications smoother.

The question of which TNC to buy is open to debate. Some TNC's not only perform packet, but also RTTY, CW and AMTOR. There is even one that will interpret weather satellite data and print it on your computer screen. For VHF operations, the less expensive TNC's perform quite well. Buy a TNC that has a good reputation among your friends. There is no substitute for real experience.

You don't actually need a computer to operate packet radio. What is required is a terminal. The TNC performs all the work. It takes your inputs from the terminal keyboard and displays data to the terminal screen.

A good terminal can cost \$400 to \$1,000. A home computer can cost as little as \$150 if an old TV set is used for display. So on a cost basis, one finds many home computers used as the "terminal." Of course, terminals are available on the used market. In any case, a terminal capable of generating the ASCII character set is required.

If you are using a computer as the terminal, you will need a terminal emulator program that makes your computer act as a simple terminal. These programs are available for purchase from ham outlets. You might choose to write your own emulator program. My TNC manual has a listing of programs that can be run on some of the more popular home computers.

When starting the terminal emulator program or setting up your simple terminal, be sure to pay attention to all the details. The TNC manual will instruct you on such terminal parameters as parity setting, baud rate, ASCII set, etc.

The amateur rig can be the one currently in your shack. VHF operations should be with an FM rig. HF operations require either the SSB or AFSK mode. Operating packet on HF is a little tricky and slower, so this discussion will be limited to VHF. Your VHF rig should be operated in the FM mode on simplex. It helps to have an antenna on the roof and moderate power, but that is not necessary. There will be other packet stations that act as repeaters or "digipeaters" to help you out.

Let us assume that a TNC has been purchased. The first thing to do is to

read through the manual in its entirety. Pay close attention to the installation procedures. Hopefully the TNC manual has specific instructions on how to hook up your type of computer or terminal. Follow these instructions carefully.

We must tie together the TNC, computer (or terminal) and rig. Most TNC's come with the necessary cables. The drawback is that those cables only have connectors at one end — the TNC end. You must buy a connector for the computer end (a DB25 connector, or whatever your computer takes) and a microphone connector for the rig end.

The Commodore and VIC computers, which are very popular in Amateur Radio, do not interface well with TNC's. A TNC expects signals in the RS-232 standard. The Commodores provide "1" and "0" with the TTL standard. There are a few ways to get around the problem.

One is to build a converter to do the translation. Another is to buy the converter from a manufacturer such as Jameco. Some TNC's (such as Kantronics) optionally do the translation internally. You must remove the TNC cover and solder a jumper into place to select this option.

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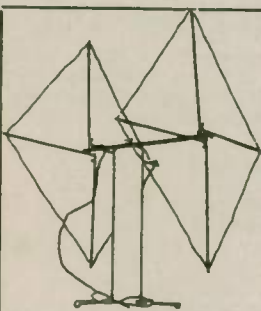
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Computers

Most computers and terminals use RS-232, and the TNC's tend to expect this standard. In most cases it is necessary to tie-in only three lines of the RS-232 cable: "Transmit-Data," "Receive-Data" and "Ground." There are two other lines ("Clear-To-Send" and "Request-To-Send") that the TNC manual might call for. You can try connecting them initially.

These lines deal with controlling the flow of data. The TNC makes an assumption about how your computer handles this flow control. If the assumption is wrong, you will not be able to communicate with the TNC. In that case, cutting the two extra lines should yield good results.

Connecting the TNC to the rig should be a snap, but it sometimes is not. The connections that are required are ground, audio-in, push-to-talk (PTT) and audio-out. Audio-out connects to the speaker jack of the rig. My VHF rig (Kenwood 7950) refers to the PTT line as the "Standby" line. It might also occur to you that hand-held transceivers do not have a jack for PTT. Some TNC's have a jumper for that case. Just wire the jumper and omit the PTT connection. Your TNC manual should provide advice for this case.



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So let us assume that everything is hooked up. The first step is to talk with the TNC. If the TNC manual specifies a certain baud rate between it and the computer, set it up. Some TNC's have "auto-baud" detection. On power-up you will see a message on the screen instructing you to type a certain character. The TNC detects the baud rate, and now you are set. Now that you can talk with the TNC, use the command to permanently set the baud rate.

use this station as a digipeater to connect to ourselves.

Be sure to use the call sign command to set the call to your call sign. The TNC automatically identifies for you on every packet, but it must know what your call sign is first.

Now we will attempt to connect to ourselves. If the strong station that was previously heard was W1XYZ, submit the command CONNECT (put your call sign here) VIA W1XYZ. A few minutes later this message should

... it is inexpensive to get started in packet radio these days. Many households already have home computers or terminals that can be used for display. The basic "packet box" price ranges from \$120 to \$300.

There are two operating modes of the TNC: command mode and conversation mode. In command mode, the commands described in the manual can be submitted. In conversation mode, messages that you type on the terminal are transmitted.

First we want to listen for packet messages. Tune to one of the popular packet frequencies such as 145.01, 145.07 or 145.09 MHz. Set the TNC to the monitor mode so that we can eavesdrop. Adjust the volume control on the rig over several minutes until messages are seen on the screen. There is a command to list the call signs of stations heard recently. If any call signs are displayed, the audio level is probably OK.

After a good deal of monitoring, take notice of a station that seems particularly strong (if your rig indicates received strength). We will want to

be seen: *** CONNECTED TO (your own call sign). Now any text you type on the computer will go through W1XYZ and back to your station.

Everything you type will eventually be echoed out on your computer. This is a good test of your packet station. When you are done, go back to the command mode and perform a disconnect.

If you are having trouble connecting to yourself, there might be a few possibilities. The digipeater may not hear you well enough. Try connecting through several other stations. If there still is no success, then perhaps the audio tones from the TNC are not loud enough. The TNC manual should specify a resistor change to make the tones louder.

In any event, that is what is involved in setting up a packet station. Good luck and we hope to hear you on packet soon! □

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MAXCOM Incorporated
Mr. Sonny Irons, President-CEO
Fort Lauderdale, FL

Re: MAXCOM 2000 #31005907
Purchased 10-12-87

Dear Sonny:

I have had the above "2000" in operation for nearly 2 months now after securing same from you on 10-12-87. I'm pleased to report that all is working exceptionally well - in all services. As I indicated on my warranty card earlier, this station is involved in mutiple services (i.e., USAF MARS [now Indiana State MARS Director] AFAIMU/AFFIN; USAF CAP [Major] Great Lakes Region Staff [Communications] as Great Lakes service (FCC FOB AA/00; AIRS; involvement in the amateur radio service operation on many RACES; ARES etc). These services require very active specific freqs between 1.8 and 30 MHz. The broadband multimode ICOMs and the single MAXCOM 2000 are fully serving these requirements.

I have been pleased with the results and happy to receive very acceptable signal reports (band propagation permitting hi) from all stations with just 100 watts of power. I have a multiple position station for these services and am planning to install yet another antenna with the MAXCOM 2000 in the very near future. I have the system with 70' sides (140' overall) in an inverted "U" configuration up about 40'.

I am pleased with your product Sonny-in spite of some bad press I've seen in the past. Proof is in the performance - and the satisfaction of this customer!

Thank you for your past courtesy and an excellent introduction to this outstanding antenna matcher product.

73,

Jack D. Forbing
Jack D. Forbing, K9LSB
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USAFCAP GL-14
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QRP
Rich
Arland,
K7YHA

Seven o'clock Sunday morning and I was soaked. To say it was raining hard would be an understatement. When the Emergency Coordinator told me I would be assigned to an ambulance crew, I naturally assumed I would be inside the ambulance!

The Murgas ARC was providing communications for the 1988 Wilkes-Barre (PA) triathlon. With a pre-race registration of almost 1,200 people, this year's triathlon was to be the biggest ever.

The Murgas ARC had been contacted by the triathlon committee early on to provide communicators at strategic points along the swimming, biking and running courses. In addition, the Murgas mobile comm van would provide a central communications point for race officials.

Saturday's temperatures in the mid-70's lulled me into a false sense of security. Battery packs for the HT were charged, ear/mic and spare antennas were handy, fresh 9V batteries were in my old PRO-4 hand-held scanner, and the bright red Murgas ARC windbreaker was clean. I was ready.

At 0630 Sunday, seven amateurs piled into my Toyota van and headed for Harvey's Lake, the site of the swimming event. By the time we had reached the lake, the rain had increased to a decent-sized downpour. Everyone in the car had their rain gear... everyone but me, that is. That was OK. I was assigned to an ambulance crew; I wouldn't need rain gear.

After wandering around for about 10 minutes in the pouring rain, I finally located my ambulance. The windows were all fogged over, so I grabbed the side door handle and pulled. The ambulance door swung open to reveal a packed house. My ambulance was full of paramedics,

firemen and EMT's. Alas, no place in the inn.

Just before the first wave of swimmers entered the water to begin the race, the ambulance emptied out and I was afforded a seat at last.

We were using the 147.00 machine for communications on the lake. The 146.61 machine was being used by the bike and running courses. Since we were all using HT's and could not override some malicious interference on the 147.00 repeater, we QSY'ed to 146.52 simplex and resumed operations.

The K3YTL mobile comm van (located at the race headquarters) was unable to communicate with anyone at the swim course on .52 simplex, so they relied on the 147.00 repeater to contact amateurs at the lake. No big deal, except that now we had two frequencies to monitor (.52 and 147.00).

Since my Alinco ALX-2T Micro-HT had the capability to monitor a priority channel, 147.00 became the priority channel and 146.52 was the guard channel. Problem solved. However, another way to approach this problem is to use a separate hand-held scanner. Now this is *NOT* a bad idea, for several reasons.

In an emergency communications scenario, it would not be unusual to


have need to monitor several EMA/fire/police frequencies, along with a handful of 2M, 220 or 70 cm frequencies.

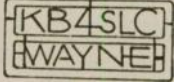
During Hurricane David in 1985, I was stationed at Langley AFB, Virginia. Not only did I monitor the local ARES repeater frequencies, but I had my scanner tuned to the Base, Coast Guard and local police/fire/emergency frequencies, as well.

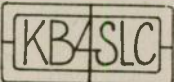
In addition, my Sony 2001 portable HF receiver was tuned to the Hurricane Hunter aeronautical frequencies. With this I could obtain updates directly from the Hurricane Hunter aircraft in the eye of the storm as they were being relayed to the National Hurricane Center in Miami! Approximately an hour later, this same information found its way to NOAA for transmission over the NOAA VHF weather radio system.


Since my old Radio Shack PRO-4 (4-channel crystal-controlled scanner) has seen better days, I have settled on a new replacement, the AR-800 by AOR. The AR-800 covers 30-50 MHz, 118-175 MHz, 436-526 MHz and 800-1000 MHz in both AM and FM modes. The AR-800 is *tiny*, measuring 5" x 2.25" x 1.75" (H/W/D) and weighs only 19 ounces.

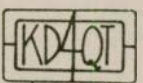
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quencies along with fire/police/sheriff and EMA frequencies in the 20 memories provided. Scan rate is a fast 13 channels per second, and it can search any predetermined frequency spread in 5, 10, 12.5 and 25 kHz steps. Sensitivity is very good using either of the two rubber duckie antennas supplied with the rig.

The AR-800 coupled with my Sony 2010 (100 kHz through 30 MHz) receiver has greatly increased my comm flexibility. These two receivers, power supplies, Datong FL-3 active audio filter, micro tape recorder, and Sony AN-1 active HF antenna system all fit into a padded case. In short, I can monitor all the frequencies that count between DC and daylight during an emergency.

Why am I writing about scanners and general coverage receivers in a QRP column? Emergency preparedness fits into all aspects of Amateur Radio. Everyone — be they DXer, ragchewer, QRPer or VHFer — needs to be ready for the time when they may be called upon to furnish emergency communications for the local community, state or national officials.

A scanner and a general coverage receiver are tools for the radio amateur. They allow the emergency communicator more flexibility and put them in touch with the "Big Picture" during a disaster.

Lessons learned:

1) Develop a check list of all the items that will be necessary to function as an emergency communicator. Separate lists for radio equipment, clothing, camp gear, etc. should be included.

2) Prepare for the weather. Dress accordingly. Keep a rain suit/cold weather gear (including blankets) in the vehicle at all times.

3) Include a programmable handheld scanner and general coverage receiver in the emergency comm kit. NOTE: More metropolitan areas around the country are moving from the traditional hi-band VHF and UHF frequencies (for EMA, police and fire) and going to 800 MHz trunked systems. As the migration to 800 MHz increases, the need for 800 MHz coverage on a portable scanner will become crucial.

4) Be prepared to aid whoever you are supporting in completing tasks not directly associated with communications. Case in point: I provided blankets (that are normally carried in my van) to the ambulance crew (which didn't have any), to help warm up the hypothermia cases.

5) Obtain training in advanced first aid (including CPR) to enhance your net worth to medical and disaster management personnel during a disaster or emergency comm exercise.

6) Never, never, NEVER take anything for granted. Always try to anticipate those things that will "never happen" (until you are on the scene) and plan accordingly. Remember: Edsel Murphy lives!

Being ready to use your talents and equipment in support of emergency communications is a mandate from the FCC. Identify weaknesses in your abilities/equipment, and correct them before you are called upon to deploy to a disaster site.

As an emergency communicator, you are providing the reins of command for the disaster management teams, medical personnel and Red Cross relief teams. Your part is vital. Don't get caught short by not being prepared. Somebody's life just might hang in the balance.

Questions/comments: SASE to Rich Arland, K7YHA, 25 Amherst Ave., Wilkes-Barre, PA 18702.

The AOR AR-800 scanner is available from ACE Communications, 10707 E. 106th St., Indianapolis, IN 46256. Write for their catalog, and tell them you read it in Worldradio. □

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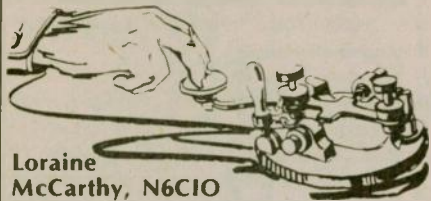
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Code Matters



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Code exams — status report

Changes are occurring in some of our code exams! Many students have called to indicate concern over recent variations they have encountered when testing.

Some students have reported an 8-minute examination when testing with some ARRL-coordinated groups. In talking with the ARRL, I was told that some 8-minute exams are circulating at this time. Their goal is to settle on a 6- to 6.5-minute exam to allow more material from which to draw questions.

At the exam session, the student is notified prior to the actual test that the test will run 8 minutes. There is a code copying endurance factor here that would make it helpful for the student to have more advance notice for practice purposes!

The style of the text is also changing in some cases. It varies from the more traditional QSO that discusses rigs, antennas, class of license, etc. Whether it be a conversation on the radio or a conversation designed for a code test QSO, information that the

student does not understand — even if the copy is a good 13 wpm — can be more difficult to deal with than typical text when answering the 10 questions.

Discussions about moonbounce and satellites, or an operator giving his class of license and talking about passing his driver's license test at the same time might be examples of this.

Questions have usually been asked on the 10-question test in the order that they appeared in the text in the past. At this time, on some exams, the student may find that the questions will not always appear in order. A sending operator's name that comes at the beginning of the QSO may be question 7 or 8.

Finally there are a few — fortunately, very few — situations where text like this might be sent: The weather here is "hot and snowing." In most cases, the examiners see this as a way to test the student's real ability to copy the code.

I find that most students are very pleased with the volunteer examiner program, and my overall experience in contacts with the examiners has been very positive. There are, however, a few current trends that I would like to see modified or changed.

If you are a student or an examiner and would like to discuss ideas or changes that you'd like to see occur, write to me or give me a call at the address and phone below. I would like to talk to you!

If you are a student and currently preparing for an exam, remember there is no substitute for your ability to copy the code. You may wish to practice some sessions of code longer than 5 minutes if you are preparing for an ARRL exam, in the event you may need to copy longer.

Also, remember to review your practice QSO's after you copy and to get experienced at looking for your answers and the key topic areas that each sentence talks about. If you do not get a passing score on one examination, be sure to schedule yourself for the next available test and try again!

More updates on the examinations will be coming.

If you are studying for a theory exam in addition to one of your code exams, Radio School theory tapes are available. The Novice, Technician and General theory sets are comprised of two 90-minute cassettes for \$9.95 each, plus \$2 for P&H. The Advanced and Extra theory courses on cassette are made up of four 90-minute cassettes for \$15 plus \$2 P&H.

Morse Tutor from GGTE is also available for \$19.95 plus \$2 P&H if you need code practice for your IBM and compatible computer.

If you would like to write to me or order any of these items, you may write to: Loraine McCarthy, N6CIO, Code Programs Manager, 315 1/2 Ruby, Balboa Island, CA 92662, or call (714) 979-CODE between 9 a.m. and 4 p.m.

Ferrite beads & RFI

There is an excellent handout on "Using Ferrite Beads to Keep RF Out of TV Sets, Telephones, VCR's, Electronic Equipment, Burglar Alarms and Other Equipment," available with an SASE from the Stanislaus Amateur Radio Association, P.O. Box 4601, Modesto, CA 95352.

Many of us have been bedeviled with HF-SSB interference on EOC telephone lines from RACES, CAP, MARS and other transmitters. If you have or have had similar problems, this handout has a wealth of information for serious troubleshooters. (Thanks to the SARA; Bernard Pelletier, N6OCV, and Palomar Engineers. —Stan Harter, KH6GBX)

Correction

Andrew Young, recent Silent Key and former resident of Pitcairn, went by the call VR6AY. His call was omitted from the article we ran on page 28 of our November issue. □

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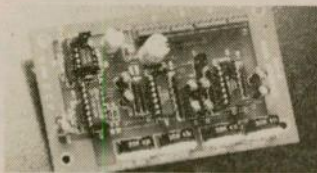
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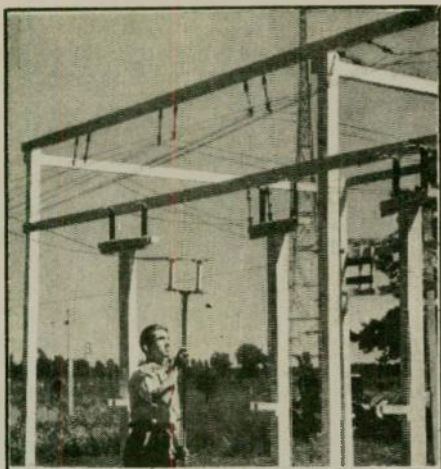
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AERIALS

KURT N. STERBA

WARNING! October 1988 issue of *23 Skidoo* has a bad mistake on page 83. In *Figure 2*, the top of the twin-lead feedline shows — alas — a direct short. It was most likely a drawing error.

Old-timers would catch it immediately, but I fear the newcomer would not. At the top of the feedline take out the rounded wire and insert an insulator.

I was recently amongst a group of hams and what did I hear? "A tuner just fools the transmitter." Gadfly! Can't we get rid of that awful piece of disinformation?

I'll make this statement: if you are concerned about the SWR, use a transmatch and eliminate all worries about power transfer and maximum signal strength.

There! Those who wish to snort and wheeze may do so, and we'll await the usual avalanche of poison pen letters. An amateur will come up to the Worldradio staffers at a convention and say, "He's hurting your magazine."

OK, for those who wish to tar and feather me, and ride me out of town on a rail, here is another statement:

Your feedline is 100 feet of 300Ω twin-lead. Your transmitter is at 3.505 MHz. The SWR is 10 to 1. The operator at the receiving end will not hear the difference between this condition and a perfect match!

There it is! Oh, I can hear people reaching for their crayons now. Going to write me a real scorcher, huh? Go right ahead, but after writing the letter . . . address the envelope to W1ZZ

People reach people
through Worldradio

at ARRL because I just took all that from page 26-1 of the new *ARRL Antenna Book*, and my earlier statement is also from the same book.

"Even a 6' vertical on 7 MHz can produce an exceptional signal."

Getting the lynch mob out? Send them to Newington, Connecticut — same book.

I could go on. I think the column I got the most swamp gas on was one in which I just took about 10 statements from previous ARRL books. HAH, HAH!

I've taken charts and put the plots into words and seen apoplexy as the result.

I'd also like to thank the nice people who comment, some at the conventions attended by Worldradio staffers who pass them on to me, and particularly most recently, the comments from the "cub."

Many have written in that I should do a book. That is indeed flattering, and I thank you for the thought. Actually, I considered it, but since Doug DeMaw, W1FB/8, has such a good book out now, there is really no reason for me to do so. I agree with about 99.999% of what he says, so buy his.

I do have a small booklet for \$2 which is titled, "Why a single-element vertical has a poor front-to-back ratio."

Also, I now manufacture antennas. These are guaranteed to be the finest isotropic antennas on the market. Prices: 80M, \$8; 40M, \$4; 20M, \$2; 10M, \$1. Tax is included. Enclose an SASE in which your isotropic radiator will be shipped. Cash only.

I'm writing this one week before the CQ WW Phone Contest. I'll be in it with (for those who remember) "Son of . . . shopping carts." It's back to antennas of the absurd.

Having gone through loading up metal ladders, automobiles and the like, this time it will be a true "disguise" antenna. I'll be writing about it — an antenna that nobody thinks is an antenna. That is, if it works.

Ending with a little tip. Should you need more bandwidth than the average dipole gives you, use 300Ω line or 600Ω open wire instead of just putting wire on each side of the center insulator. Short both ends of your ¼-wave sections and feed in the usual manner. The extra width does broaden

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the frequency traverse between the 2:1 SWR points.

Letters are always appreciated; all are answered, eventually. All your antenna problems are solved.

(Kurt N. Sterba, Worldradio's man of mystery, residing in Shangri-La, maintains anonymity so he can even, on occasion (besides hooting), praise the good guys without quid pro quo expected nor desired. Being nom de plume prevents any semblance of influence by mentioned parties or products.) □

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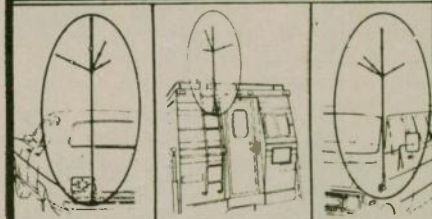
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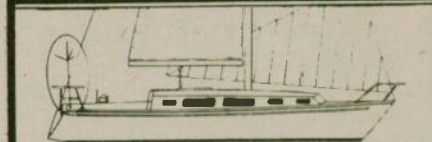
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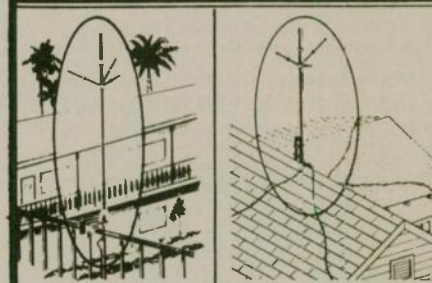
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'Dream' shack

Ken Kolthoff, K8AXH/6

When I was a kid bitten by the Amateur Radio bug, a paper route kept me supplied with funds for sodas and baseball, and tubes, etc. for my homebrew rig. Push-pull 6L6's plus a 3-tube "wonder receiver" out of *Popular Electronics* were the best I could muster, but they put me on the air. The 1R5's only lasted a couple of hours until I figured out that the "1" really meant 1.5V on the filaments, not 3V like the 3V4!

There was no Elmer within 20 miles, so my first real look at a 1950's ham shack across town came as a real shock. I was so thrilled I couldn't sleep for a week thereafter! There they were, neatly lined up on a desk and in racks: ARC-5 transmitters, receivers, a Super Pro, an R390, and for real AM clout, a BC610. This guy even had a pair of ARC-5's in his car, with a huge floppy whip on the bumper.

Well, that did it. My dream was fixed. Time went by, and designing and operating missile systems for the Air Force took up 25 years so fast that I had little time outside my family, which grew to six kids, for my dream to become a reality. I did keep up with a little activity on the air, though, and managed to keep my license current.

Now with a few more bucks than my paper route and different priorities, I've become a compulsive buyer and fixer of those beautiful old sets of my youth. I show up at ham auctions and hamfests from Ohio to California, with stops at Kansas City, Denver, Omaha and Boulder—anywhere the Air Force would place me near, I go. I start out to come home with a new Kenwood or

ICOM, but somehow it never works out that way. I guess my idea of a ham shack will always be the one that was fixed for me in the 1950's.

ARC-5's, NC183, Central Electronics, SP600, Viking, and the ultimate—a Collins S-Line—are still my dream. The rest of the fun is in finding tubes, parts, coils—all those missing or broken things that make up these sets. The friends I've made and fellow hams I've met in my quest are a super bonus.

Quite frankly, I'm happy with my Collins S-Line. My "itch" is satisfied when I find and fix an old set, put it on the air, and maybe trade it off at the next swapmeet for another one. Call it an odd quirk, but I've carved out this niche for myself in the wonderful, complex and exciting world of Amateur Radio.

(Originally entitled "Satisfying An Old Itch," by Ken Kolthoff, K8-AXH/6, as told to Key Klix, October 1986 Edition, Santa Barbara ARC. Kolthoff is currently assigned to Vandenberg AFB as Deputy Director of the Environmental Task Force.) □

Don Wallace Museum

The Don Wallace Museum will be a repository for memorabilia, artifacts and technical displays commemorating the operations of Press Wireless and pioneer radio amateur operator, Don Wallace, W6AM, at "Radio Ranch," atop the Palos Verdes Peninsula.

The museum will be built on the original site, 22 miles southwest of downtown Los Angeles.

In 1938, Press Wireless constructed an HF receiving station, 1,200 feet above the ocean on a parcel of land leased from the Vanderlip family. The station — a splendid example of radio technology of the era — included the first, diamond-shaped "rhombic" antennas on the hill. The transmitting

site was at Playa del Rey, 15 miles to the north.

When World War II erupted, the Press Wireless news gathering system, with its trained operators, was pressed into service, providing vital long-distance military communications between the War Department and Allied forces fighting in the Pacific.

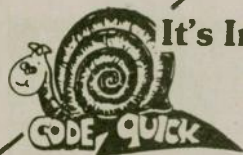
In 1947, pioneer Amateur Radio operator Don Wallace purchased the entire 126-acre Press Wireless facility from the Vanderlip family. He began expanding its capabilities for worldwide communications.

Eventually, a total of 13 rhombics and one "curtain" antenna covered 24 acres of "radio ranch." A complex switching system allowed selection of an antenna aimed at nearly every land mass of the Earth. The rhombics were constructed of wire strung between wooden poles, some as tall as 140 feet.

Following the death of Don Wallace in 1985, the remaining 24 acres were sold by Don's heirs to Wallace Ranch Associates, who intend to build additional luxury homes. The developers have agreed to set aside 30,000 square feet of the extremely valuable property as a city park.

The developer will construct a 2,400 square foot building to house the museum. The total estimated value of this effort is \$1 million.

This generosity carries with it the *(please turn to page 59)*



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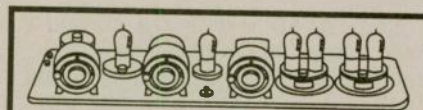
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Product Review

Sparky J-10 antenna

SPENCER POFF, N7KZI

After seeing a demonstration of the Sparky J-2 (2M version), there was little question that it worked far better than a rubber-duck, a ¼-wave or even a ½-wave antenna for an HT. The 10M version was small enough to hang down from my apartment window, so it was worth a try. Some of my friends have used one pulled up in a nearby tree, which almost completely hides the fact they have an antenna at all.

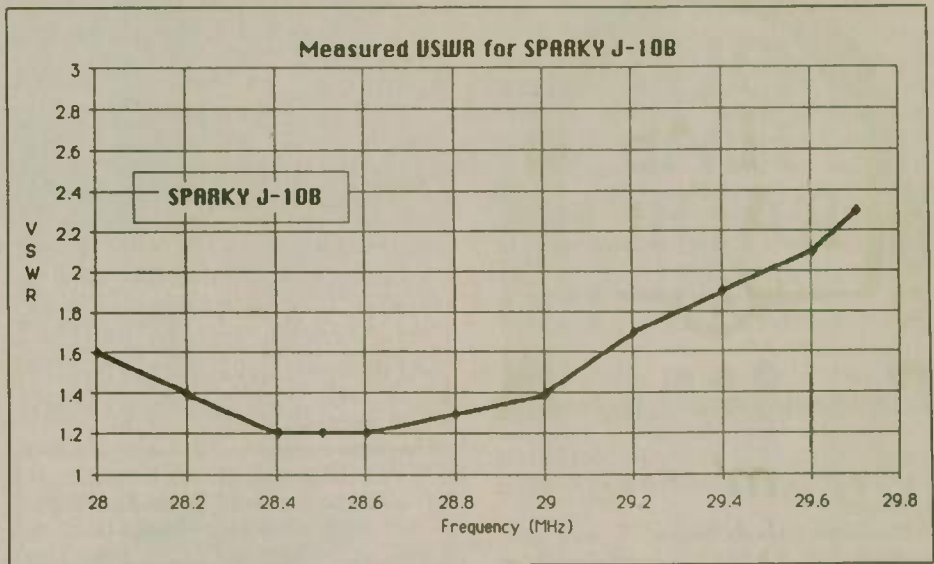
The Sparky J-10 is a unique adaptation of the standard J-Pole antenna design. It is intended to be used whenever a fixed antenna is unavailable or impractical to effect good communication such as in backpacking or an emergency in rough terrain. In such situations, the user would toss it up in a tree as high as possible and then simply connect the coax to the rig.

I found the instructions well written and easy to follow. The antenna was made well with all wiring covered with insulation. The PL-259 connector was of excellent quality, as was the matching section and radiator element. The antenna came fully assembled with about 24 feet of foam-type RG/58 coaxial line.

There was little trouble in putting the Sparky J-10 on the air. I unpacked the antenna and simply pulled it up about 32 feet on a tower with light twine. The total length of the radiator and matching section was about 25 feet. The lead-in coax was of sufficient length to reach the shack without any additional cable. It was connected to a Daiwa NS-660A Cross needle VSWR meter and then to a Kenwood TS-430S transceiver set at 10W output. The VSWR readings were taken without incident and are shown in the graph printed with this article.

Notice that the 2:1 bandwidth was more than 700 kHz around a center resonance frequency of 28.750 MHz. The directions suggest an easy way to shift the frequency for minimum VSWR by varying the end loop of the radiator. The amount of variation is stated to be about $\pm 0.5\%$, or nearly 150 kHz either way.

The first time I used the Sparky J-10 on the air was late one fall evening. I'm a new ham so when I answered a CQ from a fellow in Georgia, my heart was beating like crazy. My power was only 4W but he came right back and gave me a 559 report. Not bad for my first-ever 10M contact. Boy was I surprised at the "DX." We



talked for a few minutes before the band went sour.

I am completely sold on the ease of getting on the air with the Sparky-type antenna. Had I been in an emergency situation, I feel I could have been up and going in less than 10 minutes with a pretty potent signal even from my QRP rig. Because the antenna rolls up in a small coil, I don't think I'll travel without having it in my mobile. I never know when I'll

need something better than the ¼-wave whip.

Spencer Poff is a Junior in Electrical Engineering and a newly licensed Technician amateur. His address is: Department of Electrical Engineering, Brigham Young University, Provo, UT 84601. The Sparky J line of antenna is manufactured by Sparrow Hawke Communications, 450 Westfield Road, Alpine, UT 84004; (801) 756-7842. It is distributed by Antennas West, 1971 North Oak Lane, Provo, UT 84604; (801) 373-8425. □

Product Review

Alinco Dual Bander

RICH ARLAND, K7YHA

The folks at Alinco Electronics have done it again. Yep, they have managed to shoehorn a 2M and a 70 cm transceiver into one box. I'm talking about the Alinco ALD-24T Dual Bander. This is one heck of a fine radio. Small enough to fit inside my wife's Honda (5.5" x 2" x 6.5" ... the radio, NOT the Honda!!) and loaded with features that makes life on the road very pleasant.

Alinco sent me my review radio just prior to the spring VHF contest. While using the ALD-24T in the car one afternoon, I heard several of the Murgas ARC members lamenting the lack of a 70cm FM transceiver for the upcoming contest on Red Rock Moun- (please turn to next page)

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tain. What the heck, if the radio was good, I'd find out on Red Rock. If it was not so good, I'd find out about that, too. This would be one product review done under the heat of fire. Besides, I knew that Mark Morisato of Alinco wouldn't mind. After all, what he didn't know . . .

Dave Doiron, WA1MKE, took the ALD-24T up to the mountain where it became the prime mover on 70cm FM. The little dual bander was driving a 100W amplifier feeding a 25-element array up 2,500 feet ASL!

The ALD-24T was set up and on the air with no difficulties. There was a kilowatt on 144 MHz and a kilowatt on 432 MHz, both within 30 feet of the tiny dual bander throughout the entire weekend.

The receiver on the ALD-24T performed fantastically. No intermod or breakthrough was noticed by any of the 70cm FM operators. Talk about a "bullet-proof" front end!

The radio performed flawlessly during the entire contest weekend. If it can withstand the rigors of a Red Rock contest, this little rig can withstand anything.

The only complaint concerning the little rig was the size and placement of the squelch control needed to be made larger for easier operation. One other

comment: while the power output on 2M and 70cm was listed as 25W, the actual power output on 70cm was slightly less.

As for specs for features, this little jewel is loaded. Approximately 25W output on high power and 5W output on low power on both bands. The ALD-24T has a built-in CTCSS encoder/decoder and a 16-button TT pad on the back of the mic. The tiny rig features 21 memories, scanning, cross-band operation, dual VFO's (which can be set up for odd splits) and large LCD readout, which is very easy on the eyes. Frequency coverage on 2M is



The Alinco ALD-24T Dual Bander

140-149.995 MHz and on 70cm is 440-450 MHz, which means the radio can be programmed for MARS and CAP frequencies without any modifications.

Bottom line on the ALD-24T by Alinco Electronics: Terrific radio for the money. Small, rugged (field-tested at a Red Rock contest), very flexible and with a front end that is crunch-proof.

For more information and prices, contact your local Alinco dealer or write Alinco Electronics, Inc., 20705 South Western Ave., Suite 104, Torrance, CA 90501. My thanks to Mark Morisato of Alinco Electronics for furnishing the ALD-24T for this review. Don't forget to tell 'em you saw it in Worldradio. □

HF FLEAS: West Virginia University Agriculture and Forestry Experiment Station researchers have discovered that fleas communicate with each other by high frequency sound signals.

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Texas State QSO Party

The Texas State QSO Party, sponsored by the San Benito ARC (#2247 SSC), will be held from 0001 UTC, December 3 to 2359 UTC, December 4.

Rules: Texas stations may contact any station; non-Texas stations contact only Texas stations. Three contacts per band permitted (one each — CW, RTTY and SSB).

Bands: All amateur bands, except WARC.

Suggested frequencies: 40 kHz up from band edge for CW, and 1.890, 3.885, 7.285, 14.285, 21.360 and 28.405. Novice segment CW operation, 25 kHz up from low band edge.

Exchange: Texas stations send RS(T) and county. Others send RS(T) and QTH. A valid contact requires the complete exchange. Portable or mobile stations changing their location during the contest may be worked for points in each new county they are in.

Scoring: All stations count as 1 pt. for SSB; 2 pts. for CW/RTTY; and 3 pts. for each Novice contact. Bonus points of 100 for QRP; 100 pts. for contacting the club station (N5GNK or WA2VJL).

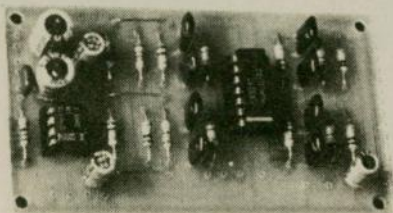
Multipliers: For Texas stations, the multiplier is the sum of Texas counties, other U.S. states, Canadian provinces and other DX countries, and any bonus points. Texas mobile stations multiply total valid QSO's by the sum of multipliers earned at each county of operation and any bonus points. All other stations, the total of Texas counties worked (max. 254) plus any bonus points.

Certificates: Awarded to highest score for each mode and band; highest single-op; highest multi-op; Texas single op or club operating from the rarest Texas county; and highest Novice and Technician entry scores.

Send logs and claimed score total by December 31, and an SASE for results to: San Benito ARC (#2247 SSC), P.O. Box 1382, San Benito, TX 78586-1382. □

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NEW PRODUCTS

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

Gray Line DX Advantage for personal computers

MFJ Enterprises, Inc. announces the release of new DX software for IBM PC/XT/AT and compatible computers.

The new MFJ-1286 Gray Line DX Advantage/Terminator is a computerized DXing tool. It predicts DX propagation by giving users instant access to Gray Line positions for any place in the world at any time, and any date from 1980 to 1999. Even the casual DXer can work rare DX by knowing exactly when conditions are best for DX.

You get a high-resolution world map that displays the Gray Line as a moving area of day and night that changes with time.

The Gray Line is the day/night divider line that indicates a path for DX propagation. With the MFJ-1286 Gray Line DX Advantage, you'll know exactly when to take advantage of the Gray Line. It shows you the moving Gray Line, UTC times, time zones, sun position over the Earth and latitude/longitude markers.

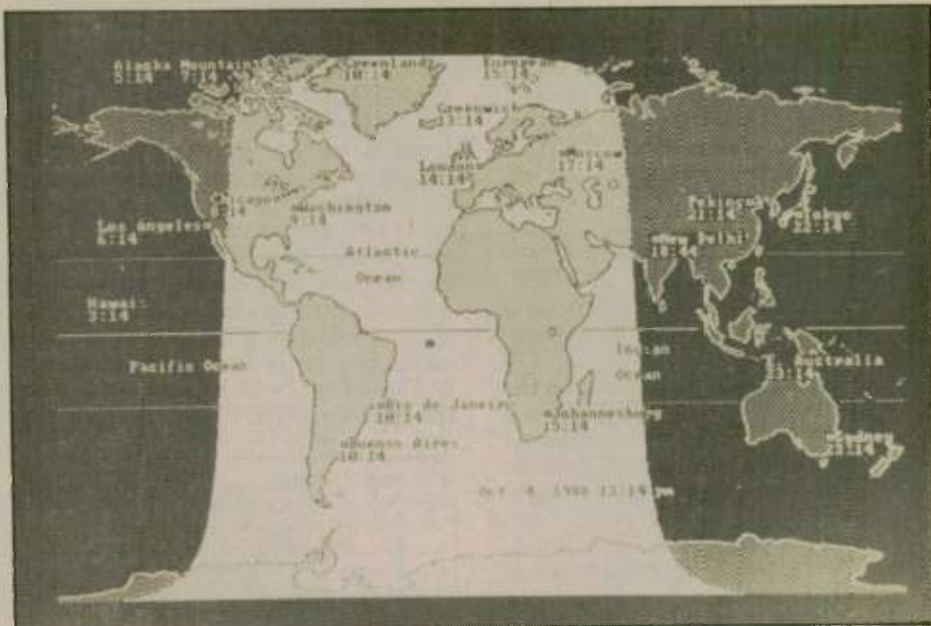
You can customize the MFJ-1286 Gray Line DX Advantage and display time and location for any QTH in the world — it makes DXing and skeds precise and easy.

You can run it by itself or as a memory resident program in conjunction with your beam header or other software. It works with all graphics: Hercules, CGA, EGA and composite.

It comes with three maps: a default Land Mass Map, a map that shows the latitude/longitude markers and a third map that displays the division of time zones throughout the world. CGA works with the Landmass Map and lets you send the display to your printer.

It also corrects for the north/south position of the sun and the curvature of the Earth, making it perhaps the most accurate Gray Line predictor yet.

It retails for \$29.95 and is available from

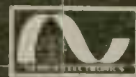


any MFJ dealer or direct from MFJ Enterprises, Inc. For more information, contact MFJ Enterprises, Inc., P.O. Box 494, Missis-

sippi State, MS 39762; (601) 323-5869, FAX: (601) 323-6551, Telex: 53-4580 MFJ STKV, or order at (800) 647-1800. □

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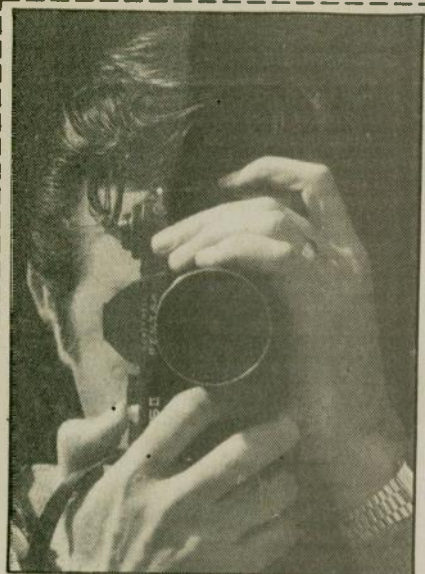
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"It's perfect for my condo," comments John Connell, KJ6JY, co-founder and developer of what he describes as the Covenants, Conditions and Restrictions beater — now becoming popular in many new housing developments.

The electric antenna raiser designer — Jim Cook, WA7YVW — comments, "The motor and base assembly weighs 25 lbs. It is securely fastened to any flat surface, horizontally, vertically or at an angle with four 1/4" carriage bolts, and requires a mounting surface space of approximately 12" x 11".

The antenna mounting mast simply hose-clamps into the stainless steel mast saddle. Grounding systems are easily added to the base. This whole affair goes together easily in a single afternoon.

An AC motor is utilized to minimize voltage drop; 6-conductor, #18 wire is required. All terminals are easily identified. Runs up to 250 feet pose no problem for the remote control device. Red and green LED's indicate when the antenna is up, down or pivoting into hidden or up placements.

A white fiberglass cover seals out moisture and dust. Routine lubrication and maintenance are not required in most installations. All electrical lines are fused for safety.

Just flip the switch and your 20'-30' antenna silently raises for unrestricted communication capabilities. Some California landlords are also allowing the occasional use of an Amateur Radio antenna on their properties when the antenna may be layed down after

"occasional" use. A flip of the switch, and your antenna pivots down, silently disappearing from view.

This device could be marketed for approximately \$600-\$700, including complete instructions for installation, operating and maintenance.

John and Jim would like to know if there is sufficient interest in the ham world for a



device of this nature, to determine whether it would be practical for them to make this device commercial. Readers and anyone in the ham world interested, please drop them a card: John Connell, KJ6JY, Box 1350, Costa Mesa, CA 92628. —Gordon West, WB6NOA

Correction

On page 59 of our November issue, in "Radio Shack wants more amateurs," Leon Lutz, WB5IUW, and Dave Wolf, WD5H, are listed as being Radio Shack buyers. Larry Garens, WD5H, has informed us that WD5H is HIS call.

We checked the Callbook and sure enough, he was right. Dave Wolf is actually WO5H. Our apologies to both Dave and Larry.

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Kilo-Tec announces the availability of the Nevada High Power Roller Inductor.

The Model RC-26 variable inductor is intended for use in high-power antenna tuning units and transmitter output stages. The unique design minimizes "contact bounce" and insures the best possible contact between roller and coil during adjustments. Losses are

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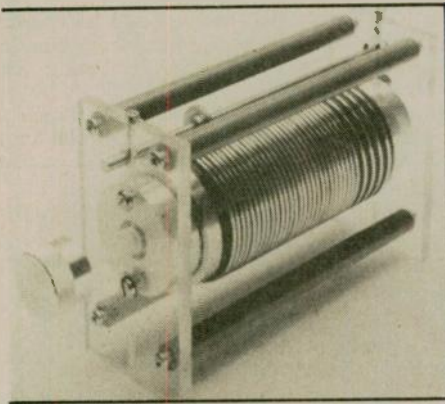
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minimized by using silver-plated wire and a special RF transparent Tufnol Former.

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Don Wallace Museum

(continued from page 54)

proviso that adequate private funding be found to develop the interior of the museum, construct exhibits and finance continuing operations.

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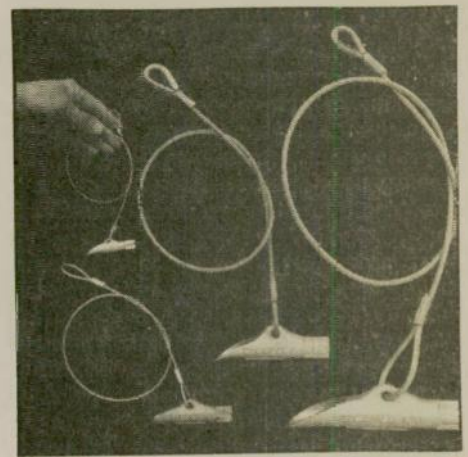
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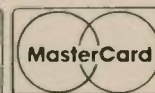
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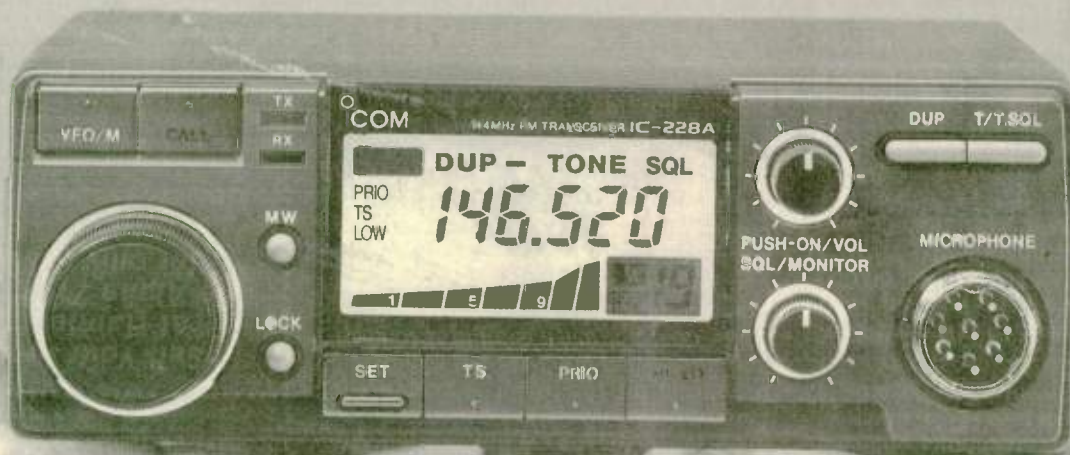
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