

## Tragedy strikes Saragosa

Bill Brooks, KE5OG  
Dave Cockrum, N5DO

What began as a very special occasion turned to tragedy in the small West Texas town of Saragosa on May 22. A preschool graduation ceremony for 30 4- and 5-year-old children was interrupted by a vicious tornado with winds estimated at 260 miles per hour. The toll of dead and injured was the highest to hit Texas in recent years.

Twenty-nine people, including six children, were killed and over 120 were injured. Most of the dead and injured were participating in the graduation ceremony which was being conducted in the community center.

Threatening weather in the area had caused the Skywarn system of the Midland weather service to be activated. Net control for the Midland Skywarn is W5QGG, the call of the Midland ARC. Charlie Towry, W4LCC, was watching the weather from the east of Saragosa. Glenn Humphrie, WD5COG, was watching from the west. Both are residents of Balmorhea, located about 8 miles from Saragosa.

Also monitoring the weather was George Toone, WB5FBJ. Toone is a blind amateur, but with the help of his brother and father he was able to report from his parents' farm, about 1 mile east of Saragosa.

At 8:16 p.m., with 21 minutes warning by W5QGG and the Midland, Texas WSO, the twister touched down in the heart of Saragosa. Saragosa had no warning system.

WB5FBJ began describing the disaster using the West Texas Connection, a linked 2M repeater system that covers the vast West Texas area. Immediately, amateurs from all over the region mobilized to provide assistance.

WD5COG, W4LCC and Bob McDaniel, WO5K, immediately began to assist in the search for victims. At the same time, Bob Ward, WA5ROE — net manager of the Big Bend Emergency Net — activated the net on 3922 kHz from his home QTH in

Alpine, about 75 miles south of Saragosa.

Rick Sohl, WB5MPX, who had been listening on 2M began loading gasoline, water and other supplies and moved them to WA5ROE's residence. Sohl then began operating as net control on the West Texas Connection using WA5ROE. James Cook, K5FD, also arrived at Ward's to assist.

Cook notified Bill Brooks, KE5OG, and Dave Cockrum, N5DO, to roll the Big Bend ARC's emergency communications van. KE5OG, N5DO, K5FD and Jim Thomas, N5JOE, arrived in Saragosa at 10:53 p.m. with the van and some supplies.

The van was located near the com-

mand post of law enforcement officials at the disaster on a site selected by the Reeves County Civil Defense Director. Within minutes, a generator was set and running, a wire dipole was strung and traffic was being passed from Saragosa.

Another station was established, also using an emergency generator, at the Balmorhea School where shelter was being given to homeless Saragosa residents. W4LCC moved to Balmorhea to man that station using his call. He had assistance from Banks Campbell, AE5J, Doug Otapal, N5HYD, and Ken Clouse, who had passed his Novice exam just two  
*(please turn to page 6)*



Sheila Lucas, KB6PIN (foreground), and Don Bozarth, WA6PBN, keep busy making contacts for the Sacramento Railroad Museum's special event station (Photo by Chris Wilson, KA6TAL; see story, page 15)





# Worldradio

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Worldradio (USPS 947000) is an international conversation. You are invited to participate.

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

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## Survey results

As a result of our "Readers' Survey" which ran in the February and March issues, and in an effort to better meet our readers' interests, we've decided to make some changes.

Some of you may have noticed that we are not running a *TRAFFIC* column this month. That is because it will be run in the "odd-numbered" months (i.e., 7th month, July; 9th month, September). *CODE MATTERS* and *WITH THE HANDI-HAMS* will run in the even-numbered months, beginning with this issue. *MARS* will probably run on a quarterly basis, also beginning with this issue.

You may have noticed that, as of the June issue, we have a new *QRP* columnist — Rich Arland, K7YHA, of Langley AFB, Virginia. We are glad to have him as part of the Worldradio team, but sorry to see Fred Bonavita, W5QJM, go. Fred was our *QRP* columnist for four years.

Many of the readers responding to our survey said they like the magazine as it is, but several made constructive criticisms and suggestions which we plan to look into. One suggestion has already produced fruit. Kurt N. Sterba

is back — in reruns of his *AERIALS* columns, beginning with this issue.

We always welcome your letters and suggestions for improving Worldradio. Please don't wait for another "Readers' Survey" to voice your opinions.

CHRIS WILSON, KA6TAL  
Editor

## Solutions wanted

Do you have a solution to operating radio equipment or computers that may benefit those with disabilities? How about answers or unique approaches to everyday types of problems? Success stories, hints and tips can be shared via the newsletter and on the air.

Write up your favorites and send them to Jack Olsen, K7EGL, P.O. Box 633, Bostwick, GA 30623.



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Send tape or film to The New World of Amateur Radio, c/o Bill Pasternak - Associate Producer, 28197 Robin Ave., Saugus, CA 91350.

## CONTENTS

### FEATURES

Dayton — 3  
Tragedy strikes Saragosa — 1

### COLUMNS

Advertisers' Index — 62  
Aerials — 51  
Amateur "Hi" — 22  
Amateur Radio Call Signs — 8  
Awards — 24  
Bob's Corner — 48  
Clubs — 40  
Code Matters — 44  
Contests — 56  
Digital Bus — 46  
DX World — 28  
FCC Highlights — 8  
Hamfests — 54  
MARS — 52  
MART Classifieds — 61  
Mobile — 36  
New Products — 57  
Off the Air — 17  
Propagation — 30  
Public Service — 16  
QCWA — 43  
Silent Keys — 18  
Six Shots! — 50  
Special Events — 11  
Station Appearance — 26  
Subscription, Worldradio — 9  
VE Exams — 12  
With the HANDI-HAMS — 45  
10-10 International News — 38

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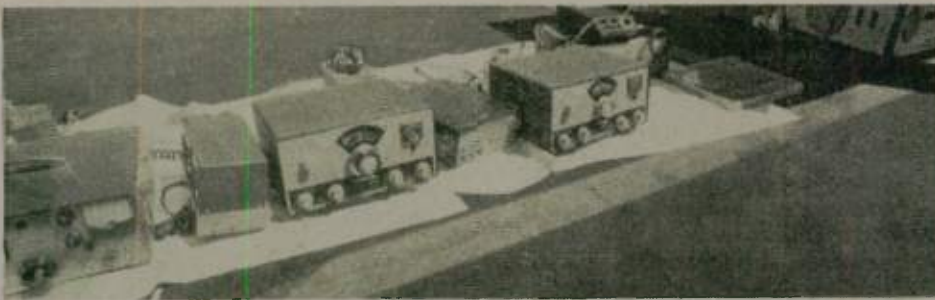




You want to know about the Isopole? Well, just sit a spell with its designer, Dr. Al Chandler of AEA. Oddly enough, his Ph.D. is in low-frequency propagation.



When you go to Dayton, you get the straight technical scoop on the products. Here the honcho of HAL, Bill Henry, K9GWT, answers the questions.



The flea market. The thrilling radios of yesteryear. Those glorious days when you could peer into the cabinet and see which one didn't light up. Suspect a weak one? Take it to the "tube checker" that was at the drugstore. Nostalgia.



This must be some sort of East Coast inside joke. A monster coil with W2ONV QRP! sign attached. Hmmmm, we think we figure it out.

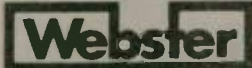
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(Photos by Armond Noble, N6WR)

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The ever-popular Ellen White, WIYL (left), mugs for the *World-radio* camera. Lew McCoy, WIICP (right), was pleased to hear that the going rate is three Wayne Green autographs get one Lew McCoy autograph in trade. Lorry Evans, KAIKOY, is in the center.

Noise Bridge? You want to know about the Noise Bridge? The man to ask is indeed Jack Althouse, K6NY, of Palomar Engineers. If he gives the wrong answer, XYL Lila gives him an under-the-table swift kick.



In the wake of incidents at the Moscow embassy, the State Department had a booth trying to recruit good loyal hams to run the electronic sweep gear.



Wayne Green (center) listens while Phil Anderson, W0XI (left), king of Kantronics talks. Why, it's worth the price alone of admission to Dayton just to see Wayne listening for a change.



QRP cult figure, the Rev. George Dobbs, G3RJV, came all the way from England to conduct a seminar. The above picture was taken of the guru as he was asked why anyone would want to run over 5 watts.

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# Tragedy

(continued from page 1)  
weeks earlier.

Both stations were manned through the night, although the KE5OG station was shut down from 3 to 6 a.m. Saturday morning, when the search was temporarily discontinued. But sleep for the operators in Saragosa and Balmorhea was almost impossible.

Over 236 messages were passed over the HF net, including administrative traffic and health and welfare. Hundreds more messages were passed via 2M.

The KE5OG station was secured about 3 p.m. Saturday afternoon and the van returned to Alpine. W4LCC remained on the air through Sunday to continue to handle health and welfare traffic.

It is impossible to list all the amateurs who assisted in this disaster, but special thanks should go to Noel Johnson, KE5NO; Don McCarty, K5CFA; Dick Ellis, W5YCK; and Kevin Hogan, KA5STE, who all helped with net control and relays. Also Jim Jefferies, WA5QMJ, who sponsors and maintains the West Texas Connection — a very valuable asset to the West Texas community.

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And to the operators of W5QGG.

Hundreds of emergency volunteers from a wide variety of agencies poured into Saragosa Friday night and Saturday. Amateurs stood out as being one of the more "professional" groups in terms of their preparedness and getting the job done. This was particularly true on Friday night.

In the case of the Big Bend ARC based in Alpine, it was no accident we were able to activate an emergency net on 3922 kHz or that we had a van

from Ojinaga, Mexico using the call XE2JVR. And of course, the van always goes to Field Day. Each of these events was a great deal of fun, but members of the BBARC had to spend several nights preparing the van for each trip. This preparation paid off when a real emergency arrived.

Since we had never been to the scene of a major disaster before, we didn't know what to expect. We took lots of water, food and fuel. These items were

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**... it was no accident we were able to activate an emergency net on 3922 kHz or that we had a van equipped to provide communications service from virtually anywhere.**

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equipped to provide communications service from virtually anywhere. The net has been in existence for 10 years. It has provided training for net control operators, experience in operating on a directed net and established a frequency that most West Texas amateurs know to monitor in an emergency.

In the case of the van, the BBARC — even though a relatively small club — committed itself three years ago to being able to provide emergency communications services anywhere in West Texas. Through our fund-raising efforts, we have gradually been able to equip the van to do the job. Even now, plans are underway to add a mobile repeater system to the van — a capability that would have been useful at Saragosa.

Additionally, we use the van whenever possible both to train our members in its use and to insure everything in the van is operating properly. For instance, a special event station was run from the van in Valentine, Texas in February, and in March the van was used as a contest station during the ARRL SSB CX contest

necessary when we first arrived. We had no trouble getting into the disaster site because of our highly visible van and because officials were waiting for us. Other amateurs, however, were turned away. Later, amateurs with ham license plates on their vehicles were allowed into the site.

In the future, we will try to have some official identification — such as RACES stickers, magnetic signs for personal cars, membership cards, etc.

We also could have used more amateurs at places away from the actual disaster site as area hospitals. We did have plenty of volunteers, but just didn't realize all the needs until later. We also learned not to try and position the net control station at the disaster site. There was too much local activity to try and handle net control functions properly.

All in all, we did prove we were ready and capable. It was yet another case where Amateur Radio was a vital link in a public service role. □

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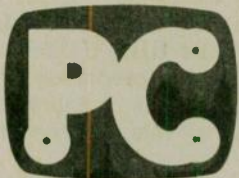
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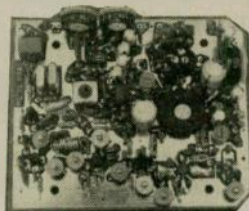
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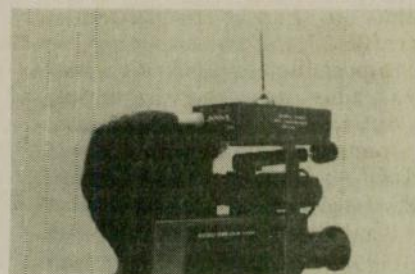
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### KPA5 APPLICATIONS:

- PORTABLE CORDLESS TV CAMERA. Think of it as a video HT. Place the KPA5 in one of the Hammond Dicast aluminum boxes. 1/4 wave (6.5") whip on top or half wave at the end of 50Ω coax attached to a headset. Plug into a 12-14 v source such as the Radio Shack 12v 5Ah battery power pack (23-182). Depending on terrain & receiving antenna DX is typically over 1 mile. With KLM 440-27s at both ends DX is 22 miles snow-free line-of-sight.
- Transmit the video to a remote VCR rather than lug it.
- Great for public service events: marathons, parades, damage assessment, search & rescue, CAP, etc.
- Mount in a R/C airplane or robot to enable remote control when the vehicle is out of sight.
- Put it in your own cabinet for base, portable or mobile. When more power is needed, connect to the Mirage D24N or D1010N-ATV amps for over 50 watts.
- Place a KPA5 in a dicast box with a VOR (video operated relay) to make a hill top video repeater. Repeat other ATVers, weather radar or Space Shuttle video.

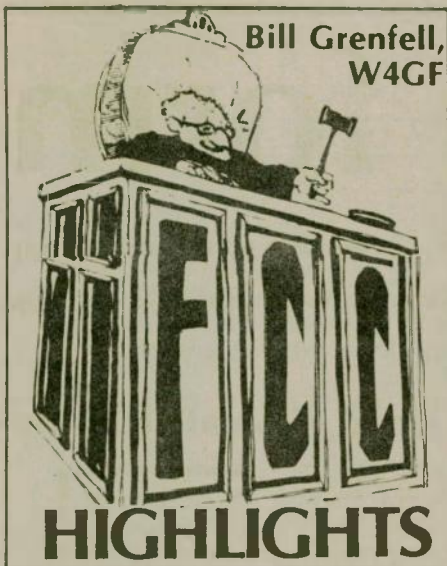
**WHAT IS REQUIRED FOR A COMPLETE OPERATING SYSTEM?** Either a TVC-2G or TVC-4G downconverter connected to any TV set tuned to channel 3, and coax cable to a good 70cm antenna to receive. Connect up the TX70-1 or package up the KPA5, add 12 to 14 vdc, antenna, and any home TV camera, VCR, or computer with composite video output. **It's that easy!**

### ACCESSORIES:

- TVC-2G GaAsfet downconv. board wired & tested.....\$59  
varicap tuned, 420-450 MHZ to ch3. Req 12vdc
- TVC-4G (TVC-2G in cabinet with 120vac supply).....\$99
- TVCX-70 crystal controlled GaAsfet downconv.....\$99  
specify in freq. & out on ch 3 or 45mhz IF. 2 freq.....\$114
- Hammond 1590D Use for KPA5. 7.3x4.7x2".....\$17
- 1590C 4.6x3.6x2" aluminum box. Fits TVCX-70.....\$11
- 800J 10 pin VHS color camera chassis connector.....\$10
- VOR Video (horiz sync) operated relay board.....\$25

- MIRAGE D24N-ATV1in / 50 out all mode amp.....\$219
- 450 ISOPOLE omni 4dbd vert. gain antenna.....\$65
- KLM 440-6X 8.9dbd ant., 28" boom, >50 deg BW....\$51
- KLM 440-10X 11.2dbd, antenna, 64" boom.....\$65
- KLM 440-27 14dbd, 36 deg. BW antenna.....\$107
- SAXTON 8285 100ft 50 ohm coax 3.5db/C loss.....\$41
- COLUMBIA 1180C 100ft coax, 2.6 db/C loss.....\$59
- UG21 type N male connectors for larger ID coax.....\$5





On April 30, the ARRL petitioned the FCC to issue a Cease and Desist Order against Aerotron, a company which has advertised the availability of Land Mobile Service equipment in the 216-222 MHz range.

"In its petition, the ARRL states that FCC rules prohibit the advertising, display, sale or lease of equipment which cannot be legally operated under the FCC rules, and requests that FCC issue an Order prohibiting Aerotron from marketing such equipment.

"Aerotron is a strong supporter of the FCC proposal to give 2 MHz of the 220-MHz (amateur) band to the Land Mobile Service. At last count, approximately 1,500 comments had been received (by FCC) in opposition to the proposal, with only a handful of comments filed in favor of it." (ARRL Letter, 05/05/87)

FCC's General Docket 87-14 proposal to allocate the lower 2 MHz of the 220-225 MHz amateur band to the Land Mobile Services is "... due for Report and Order on/about September 30, 1987."

The FCC answered ARRL's request for a Cease and Desist Order with a letter declining "... to take such action on the grounds that it received assurances the violation will not be repeated." (ARRL Letter, 05/21/87; W5YI Report, 05/15/87; Westlink Report, 05/29/87)

In regard to the 04/29/87 Denial of



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Reconsideration of the change to private maintenance of the question pools, PR 85-196, the FCC indicated it was intended that everyone must use the same question pool. It amended Rule Section 97.521 "VEC question pools" as follows: "All VEC's must cooperate in maintaining one standard question pool for each written examination element. Each standard question pool must contain at least 10 times the number of questions required for a single examination. See Section 97.21.

"No question in a question set may be used for a written examination in an examination session coordinated by any VEC unless it appears on the standard question pool. The standard question pools must be published and made available to the public prior to their use for making question sets. However, FCC declined to continue to maintain the question pools, saying it had the authority to allow the VEC's to assist it with the amateur examination workload."! (ARRL Letter, 05/21/87)

The previous rules that examinees must know and *could* be tested on all of the alphabet, 10 numerals, period, comma, question mark and procedure signs (AR, SK, BT and DN) were changed to require that they *must* be examined on *each* of these characters. (W5YI Report, 06/01/87)

Under consideration at FCC's Special Services Division is "instant Novice licensing." If the Novice candidate passes the exam, the examiner would issue the examinee a temporary call sign consisting of the examiner's call followed by a fraction bar, the letter "N" and a serial number (e.g., W4XXX/N1, W4XXX/N2 etc.). The examinee would have to certify to the examiner that he did not already hold a similar temporary permit and was not in trouble with the FCC. The 30-day comment period for a petition (RM-5924) — filed for this purpose on April 27, 1987 — ended on June 20, 1987. (W5YI Report, 06/01/87)

The FCC declines to decide repeater coordinator jurisdictional conflicts. At the Dayton HamVention's FCC Forum, the Special Services Division Chief, Ray Kowalski, "... suggested that it was not the FCC's position to decide which group was more legitimate than the other. It was up to both groups to work toward an agreement. If an agreement could not be reached, he suggested that the groups agree to binding arbitration." (ARRL Letter, 05/05/87)

In answer to a May 13 telephone query, Kowalski said, "If a method like arbitration cannot be found or agreed upon and it does come down somehow to the FCC to decide (who is 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 June 1, 1987.

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 17325.

Radio District	Group A Am. Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
0	NY0P	KE00A	N0IBB	KB0ASP
1	NK1I	KC1EB	N1EXH	KA1QMW
2	NW2W	KE2AE	N2HFZ	KB2DVC
3	NG3V	KD3CR	N3FOG	KA3RUX
4	AB4BK	KK4NB	N4QFI	KC4APY
5	WZ5P	KF5YS	N5KSJ	KB5DRJ
6	AA6CP	KI6TM	N6PNJ	KB6SYY
7	WB7Z	KF7AS	N7JJJ	KB7CGM
8	NW8Y	KE8LX	N8IKG	KB8CRL
9	NS9O	KE9EN	N9GOF	KA9YZW
N. Mariana Is.	AH0E	AH0AC	KH0AI	WH0AAG
Guam	KH2D	AH2BQ	KH2CN	WH2AKY
Johnston Is.	AH3A	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Palmyra, Jarvis Is.	AH5A			
Hawaii		AH6HW	NH6JN	WH6BSS
Kure Is.			KH7AA	
American Samoa	AH8C	AH8AC	KH8AD	WH8AAW
Wake Wilkes Peale		AH9AC	KH9AD	WH9AAF
Alaska		AL7IY	NL7KP	WL7BOZ
Virgin Is.	KP2S	KP2BE	NP2CC	WP2AFO
Puerto Rico	**	KP4NJ	WP4HO	WP4HEV

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



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## FCC Highlights

(continued from page 8)

the legitimate coordinator), I'll tell you how we will probably decide — by lottery." (*Westlink Report*, 05/29/87). However, in the same issue, *Westlink* reports, "The FCC is looking into the activities of a California 220 MHz repeater owner who one coordinator says is in conflict with the local band plan."

Kowalski is reported to have written the owner to "... provide proof that this repeater is not causing undue interference to other repeater operations" and "... to provide proof that the repeater council with which he is coordinated is the valid coordinator

for the 220 band in southern California.

The FCC has decertified four more VEC's. "The decertified organizations are Adirondack ARC VEC (New York), AE4N/Mark4 VEC (North Carolina), Dunedin VEC (Florida) and Director of MARS VEC (Puerto Rico).

"According to the FCC, these VEC's were decertified due to inactivity or failure to provide the FCC with the required annual Cost of Recoupment Certification. This now leaves 21 different VEC organizations of which four — ARRL, W5YI, Central Alabama and DeVry — conduct 85% of the testing." (*ARRL Letter*, 05/05/87; *Westlink Report*, 05/29/87)

The seventh edition of ARRL's *The FCC Rulebook* should be available in early June. In addition to the text of the rules, "This (and past) edition contains hundreds of commonly asked questions which are answered in a style that is easy to read and understand." (*ARRL Letter*, 05/05/87)

"The ARRL/VEC has invalidated the code tests for five persons who tested at a recent examination session. An unusually high pass rate — 91% of 33 candidates —" caused the review which resulted in the invalidation of the examinees. (*ARRL Letter*, 05/21/87)

The FCC's Gettysburg facility reports that additional part-time help has been authorized to assist in the processing of amateur applications. (*W5YI Report*, 05/15/87)

According to ARRL, "... it's soon-to-be-released 1987-1988 Repeater Directory will contain over 12,000 listings. This is an increase of 13% over the current book." (*Westlink Report*, 05/01/87)

"... Amateur Radio is completely exempted from submitting any RF radiation environmental statements" according to FCC's Second Report and Order on the Effects of RF Radiation. "The FCC agreed with comments filed by the ARRL that Amateur Radio operations would create little likelihood of major public exposure to RF radiation due to the relatively low power levels involved and the intermittent nature of the use of Amateur Radio stations." (*Westlink Report*, 05/15/87)

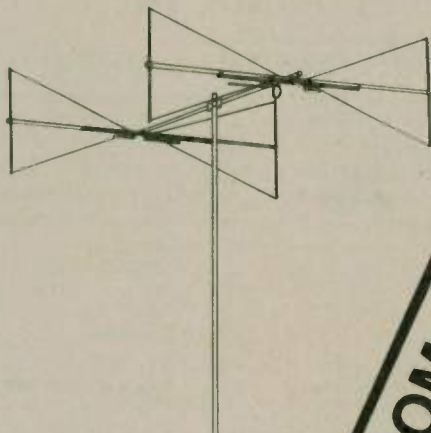
"... protection for amateur frequencies has been written into the franchise agreement between a city and a cable-TV company. The agreement with the city of Torrance, California provides that "... Amateur Radio frequencies shall not be used on the cable system unless such channel capacity is needed to provide services to (the cable company) customers. Channel E is in the amateur 2-meter band, J and K near the bottom of the 220-band. WW and XX are in the 440 band." (*W5YI Report*, 05/15/87)

As reported in last month's *FCC HIGHLIGHTS*, cable operations are required by the FCC to have a program for detecting and correcting leaks.

In support of FCC's denial of the petition for 500 kHz of the 220 MHz for a reading service for the blind, ARRL cited limited support from

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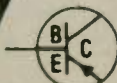
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reading services, complete absence of support from print-handicapped persons, . . . "leads inescapably to one of two conclusions: either there is no demand for the separate radio service proposed by ARRS, or there is no demand for additional radio reading services generally." (ARRL Letter, 05/21/87; W5YI Report, 04/07/87)

The FCC has received a petition to move the Novice band lower limit to 222.0 "so that Novices can use repeaters that lie below the current 222.1 MHz cutoff." (Westlink Report, 05/29 and 04/17/87; last month's FCC HIGHLIGHTS)

The ARRL has petitioned the FCC to amend Section 97.313 of its rules governing station identification by alien amateurs operating in the United States under a reciprocal agreement "... for reciprocal operations in the United States to put their prefix first, followed by their call sign." For example, "W4/DL6TJ" instead of "DL6TJ/W4."

In its May 14 petition, ARRL stated "that this identification method has been endorsed by the International Amateur Radio Union (IARU), and many countries worldwide are already using this method of identification." (ARRL Letter, 05/21/87)

During the week of May 24-30, FCC's Ray Kowalski was in Mexico City working on a hemisphere-wide Inter-American Amateur Radio (Reciprocal) Operation Convention. If approved, the amateur operating arrangements would include all nations in North, Central and South America.

"We are putting the final touches on a treaty which would facilitate reciprocal operating agreements throughout the hemisphere. It would not be something akin to what the Europeans have come up with — the concept of a universal license — but it could be a step in that direction. It could well result in finally having reciprocal amateur operating arrangements with Mexico."

Kowalski is chief of the Special Services Division of FCC's Private Radio Bureau.

### END-OF-MONTH LICENSE TOTALS

March	1987	April
41,443	Extra	41,634
97,429	Advanced	97,504
115,015	General	114,015
85,760	Technician	86,118
81,045	Novice	82,734
420,692	Totals	422,933

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# SPECIAL EVENTS

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The South Hills Brass Pounders and Modulators will operate W3PIQ on Sunday, August 2, to commemorate their 50th hamfest and the 200th anniversary of Allegheny County.

Operation will be in the 20, 15 and 10M General phone bands. For certificates, send QSL and SASE to Bill Gardiner, N3DXE, 4756 Child Dr., Pittsburgh, PA 15236. □

## Detroit Arsenal


The Detroit Arsenal, U.S. Army Tank-Automotive Command will hold their annual Summer Outing on July 25. The TACOM ARC (W8JPW) will

operate a special event station as a part of the festivities.

Operation will be from 1400Z to 2100Z on 7.250, 7.275, 21.400 and 146.55 MHz. For an 8½" x 11" QSL certificate, send SASE to: U.S. Army Tank-Automotive Command, AMCPM-GCM-O, ATTN: CPT David I. Ifflander, Warren, MI 48397-5000.

## Flat Hammock Isle

For only the fourth time in history, HF Amateur Radio is going to Flat Hammock Island in Long Island Sound. The Tri-City ARC will mount its annual expedition on Sunday, (please turn to page 14)




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World Radio History

WORLD RADIO, August 1987 11



# VE exam schedules

As a service to our readers, **Worldradio** presents a feature listing those VE exams, times and locations which are sent to us. Please remember that our deadline for publication is two months in advance. For example, if your VE group is scheduling an exam for September, please have the information to us by mid July.

Our address is **Worldradio**, 2120 28th St., Sacramento, CA 95818. Please mark the envelope "VE Exams".

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

Date	City	Contact	Notes
July 31	Topeka	NA0F (913) 828-3317	
Aug 1	Parsons	KA0CUQ (316) 421-3445	
Aug 15	Olathe	NK0B (913) 764-6347	
<b>Maryland</b>			
July 26	Baltimore	Jim Kessler (301) 953-1065	w/i
Aug 9	Goddard Space Ctr.	Rick Penc (301) 776-9312	w/i
Sept 12	Germantown	John Muller (301) 564-0178	some w/i
<b>Massachusetts</b>			
Aug 19	MIT/Cambridge	WA2EYC (617) 646-1641	p/r by 8/17; w/i OK
Aug 21	Holyoke	KO1R (203) 623-4850	w/i OK
Sept 1	Acton	W1QLT (617) 263-8742	p/r by 8/25 no w/i
<b>Minnesota</b>			
Aug 9	St. Cloud	(612) 252-0414	
<b>Missouri</b>			
Aug 8	Camdenton	N0GRD (314) 346-2944	
<b>New Jersey</b>			
Aug 8	Cranford	N2XJ (201) 635-7686	30-day p/r some w/i
<b>New York</b>			
Aug 8	Long Island	W2NL (516) 541-2450	
<b>Ohio</b>			
Aug 8	Maumee	KU8B (419) 729-5245	
Aug 8	Mentor	KO8O (216) 951-7985	
Aug 8	North Olmstead	KB8A (216) 267-5083	
<b>Oregon</b>			
Sept 5	Portland	KZ7T (503) 649-5066	30-day p/r some w/i
Aug 27	North Bend	WA7PHI (503) 756-6846	30-day p/r some w/i
<b>Pennsylvania</b>			
Aug 1	Erie	W3NR (814) 825-2539	w/i OK
<b>Tennessee</b>			
Aug 22	Memphis	WD4LFD (901) 386-2502	p/r by 8/20
<b>Texas</b>			
Aug 1	Midland	KT5G (915) 694-9450	w/i OK
Aug 8	San Antonio	NS5I (512) 681-0702	w/i
Aug 10	Brady	WD5H (915) 597-2561	7-day p/r
Sept 5	Harlinger	WM5S (915) 597-0614 WA2VJL (512) 399-0328	30-day p/r some w/i
<b>Vermont</b>			
Sept 12	Windsor	WB1GXM (603) 543-1389	p/r by 8/12 some w/i
Sept 19	Montpelier	WB1AJG (802) 433-6172	p/r by 8/19 some w/i
<b>Virginia</b>			
Aug 22	Vienna	Nancy Draheim (703) 691-0078	w/i only
Aug 23	Chesapeake	AA4MB (804) 487-6526	30-day p/r some w/i
<b>Washington</b>			
Aug 8	Seattle (North)	W7WHT (206) 282-1438	w/i only call first
Aug 15	Seattle (South)	N7IL (206) 242-6501	10-day p/r some w/i
Aug 21	Bellingham	K7IWX (206) 734-0577	p/r by 8/19 no w/i
<b>Wisconsin</b>			
Aug 13	Milwaukee	W9RH (414) 781-8616	in advance some w/i
Sept 5	Racine	N9DMP (414) 658-8390	30-day p/r some w/i

Date	City	Contact	Notes
<b>California</b>			
July 21	Eureka	KB6FIW (707) 442-9245	
July 21	El Toro	(714) 951-0336	
Aug 18			
July 25	Hawthorne	(213) 316-2758	
July 27	Montclair	(714) 875-6472	
July 30	Long Beach	(213) 434-8278	
Aug 1	Burbank	W6JEP (818) 848-9340	w/i OK
Aug 1	Eagle Rock	WB6PSY (818) 710-1705	w/i
Aug 1	Van Nuys	N6JFG (213) 258-9127	
Aug 2	Pleasant Hill	(818) 988-7165	
Aug 8	Downey	WX6A (415) 932-0491	w/i only
Aug 8	Vandenberg AFB	(213) 869-6683	
Aug 8	Los Altos Hills	(805) 937-4220	
Aug 8	Los Altos Hills	W6NLG (408) 255-9000	w/i only
Aug 15	Santa Monica	(213) 475-0383	
Aug 20	Fountain Valley	(714) 775-6095	
Aug 21	Long Beach VA Hospital	(714) 951-0336	
Sept 12	Santa Barbara	W1UUQ (805) 964-7432	30-day p/r some w/i
<b>Colorado</b>			
Aug 8	Denver	W0IJR (303) 366-9689	p/r pref; w/i OK
Aug 22	Estes Park	WB0NUL (303) 988-7222	w/i OK
Sept 5	Pueblo	WB0YES (303) 948-2291	30-day p/r some w/i
<b>Delaware</b>			
Aug 22	Wilmington	WB3DPJ (302) 478-2757	w/i OK
<b>Florida</b>			
Aug 1	Sunrise	AK4Y (305) 476-8761	w/i only
Aug 20			
Aug 15	Melbourne	WB9IVR (305) 724-6183	w/i OK
<b>Hawaii</b>			
Aug 12	Kona	NH6N (808) 325-5475	
<b>Illinois</b>			
July 23	Chicago	W9WBY (312) 929-6550	
Aug 1	Oak Forest	NF9N (312) 448-9432	30-day p/r w/i OK
Aug 7	Springfield	WD9EBK (217) 629-8190	w/i OK
Aug 15	Bolingbrook	(815) 886-5135	
Aug 15	Loves Park	(815) 874-6867	p/r pref; w/i OK
Aug 18	Aurora	(312) 892-1252	w/i
<b>Indiana</b>			
Aug 1	Speedway	KA9H (317) 241-1272	in advance
Aug 3	Plymouth	KB8V (219) 784-8540	
Aug 8	Fort Wayne	NB9F (219) 485-6177	
Aug 8	Hammond	AJ9C (219) 962-5512	
Aug 15	Mishawaka	K9WSX (219) 255-3889	
Aug 22	Rushville	KI9R (812) 372-5006	10-day p/r
Aug 22	Evansville	KA9EIV (812) 424-9182	30-day p/r; some w/i
<b>Iowa</b>			
Sept 26-27	Des Moines (Midwest Conv.)	NA0R (515) 967-3890	p/r by 8/26
<b>Kansas</b>			
July 31	Kansas City	NC0M (913) 262-0631	





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Let's face it. It's easy to bump, drop, or get rain on an HT. ■ But if your HT is Yaesu's mini 2-meter FT-23R or 440-MHz FT-73R, such mishaps are a lot less worrisome. ■ They're built to last, with rugged aluminum-alloy cases that prove themselves reliable in a one-meter drop test onto solid concrete. Plus, their moisture-resistant seals really help keep the rain out.

**Built for the realities of operating.** Despite their miniature size, both radios have all the operating capabilities of larger microprocessor-controlled HTs. Yet operating them couldn't be easier. Consider: ■ You get a 7.2-volt, 2-watt battery pack. (Optionally, a 12-volt, 5-watt pack, or 7.2-volt miniature 2-watt pack.) 10 memories that store frequency, offset and PL tone. (7 memories can store odd splits.) Memory scan at 2 frequencies per second. Band scan at 10 frequencies per second. Tx offset storage. Priority channel scan. Tuning via tuning knob, or up/down buttons.



Radios above shown actual size.

PL tone board (optional). PL display. External PL selection. Independent PL memory per channel. PL encode *and* decode. Expanded Rx coverage.\* LCD power output and "S"-meter display. Battery saver circuit. Push-button squelch override. Eight-key control pad. Keypad lock. High/low power switch (½ watt on low power.) ■ Options available: Dry cell battery case for 6 AAA-size cells. Dry cell battery case for 6 AA-size cells. DC car adapter/charger. Programmable CTCSS (PL tone) encoder/decoder. DTMF keypad encoder. Mobile hanger bracket. External speaker/microphone. And much more. ■ So get the intelligent mini HT that's built for life's realities. Yaesu's 2-meter FT-23R, or 440-MHz FT-73R.



# YAESU

Yaesu USA 17210 Edwards Road, Cerritos, CA 90701 (213) 404-2700. Repair Service: (213) 404-4884. Parts: (213) 404-4847.  
Yaesu Cincinnati Service Center 9070 Gold Park Drive, Hamilton, OH 45011. (513) 874-3100.

\*Modification required. Prices and specifications subject to change without notice. PL is a registered trademark of Motorola, Inc.



# Special Events

(continued from page 11)

August 2, and will operate from this unique uninhabited location from about 1300Z to 2000Z on that date.

Look for KA1BB in the lower 20 kHz of the General Class phone and CW 40, 20 and 15-meter bands and (hopefully) the center of the 40-meter Novice band. QSL with SASE via Tri-City ARC, P.O. Box 686, Groton, CT 06340. □

## World Hiroshima Day

All Amateur Radio operators are encouraged to take part in the 3rd Annual World Hiroshima Day Telephone Project on August 6, to be held in conjunction with the Peace Memorial Ceremony.

The idea for this project occurred in 1985, as plans were being made for the 40th anniversary of the atomic bombing.

Every year, on the morning of August 6, broadcasting companies in Hiroshima fill the local airwaves with live coverage of the Peace Memorial Ceremony in Peace Park. The Peace Bell is rung at 8:15 a.m. (the time the bombing occurred), followed by the reading of the city's Peace Declaration by Hiroshima's mayor.

Last year, the telephone project reached at least 16 countries in 11 different languages. One of the highlights was the Hiroshima Day World Youth Telecongress — a global communication event created and funded by the Washington Research Institute in San Francisco, California. The telecongress brought together 18 groups of young people who spoke to each other via a conference telephone call — via Amateur Radio, thanks to the efforts of Mary Duffield, WA6KFA.

Amateurs interested in participating in this year's project may write to World Hiroshima Day Telephone Project, P.O. Box 122, Central Post Office, Hiroshima, JAPAN 730-91. □

## Soap Box Derby

The Cuyahoga Falls ARC will operate special event station W8VPV at the 50th running of the All-American Soap Box Derby, August 10-15. Times of operation will be from 2200Z to 0300Z, Monday through Friday and from 1100Z to 2000Z, Saturday.

Frequencies: 3860, 7230, 14240 and 28420. For certificate, send large SASE to W8VPV, P.O. Box 614, Cuyahoga Falls, OH 44222. □

## Pro-Football Hall of Fame Greatest Weekend

The Canton (Ohio) ARC will operate special event station W8AL to celebrate the Pro-Football Hall of Fame Greatest Weekend, August 3-7, 2200-0200 UTC and August 8-9, 1700-2300 UTC. Operating frequencies will be: SSB—7.270, 14.270 MHz; CW—7.060, 14.060 MHz. RTTY and

Novice operation possible also.

For an unfolded certificate, send your QSL and a 9" x 12" SASE with 2 units of first class postage. For a QSL or folded certificate, send your QSL and a #10 (business-size) SASE to Randy Phelps, KD8JN, 1226 Delverne Ave. SW, Canton, OH 44710. □

## W9 Pan American Ten

The station W9PAX (W9 Pan American Ten) will be operational during the 10th Pan-American Games being held in Indianapolis, Indiana, August 7 through 23.

The special event station began operation on an unscheduled basis in May, and will be on the air from 0001 UTC, August 1 to 2359 UTC, August 23. Frequencies: CW — 30 kHz from the bottom of each band, 1.8 through 28 MHz; SSB — 1.850, 3.850, 7.250, 14.250, 21.350 and 28.550.

You may receive a colorful QSL card for all contacts. Certificates will be given for working W9PAX on three different bands, or working W9PAX once and one station each from any three of the participating Pan-American Nations, or working W9PAX once and three Indiana stations.

Send QSL card and SASE to W9PAX, P.O. Box 18495, Indianapolis, IN 46218-0495 USA. For certificate, send list of contacts, call, date and time to the same address. □

## Sea Scouting's 75th

The South Jersey Radio Association, K2AA, will operate from 1400Z, August 15 until 2100Z, August 16. To help commemorate the 75th anniversary of the Sea Scouting (Exploring) program of the Boy Scouts of America from Treasure Island Scout Reservation, the first Scout camp in America.

Frequencies: low end of 75, 40, 20 and 15M General phone bands and 10M Novice band. Send SASE for QSL to SJRA, P.O. Box 1026, Hadonfield, NJ 08033. □

## Club turns 40

The East Bay ARC Inc. will operate W6CUS on Sunday, August 16, 1900Z-2300Z, to celebrate the club's 40th anniversary and annual picnic. Suggested frequencies: SSB — 7.290 and 14.340 MHz; CW — 7.125 and 14.065 MHz. Also, W6CUS-1 triple port BBS packet connections will be accepted from 1500Z to 1800Z on 7.093, 144.97 and 223.58 MHz.

For a special commemorative certificate, send QSL and SASE to EBARC Inc., P.O. Box 1393, El Cerrito, CA 94530, by October 16, 1987. □

## Township of Norway

The Fort Herkimer ARC will operate WB2TKD as a special event station during the bicentennial celebration of the founding of the Township of Norway from 1300Z to 2000Z on August 23.

Operation will be in the General Class phone portions of 40 and 20 meters with some operation in the Novice/Technician 10-meter phone band. For certificate, send QSL and SASE to: M. Harodecki, RD#1, Newport, NY 13416. □

Barth's distinction - there are two types of people: those who divide people into two types, and those who don't.

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 KENWOOD - Order Model L for TH-21/31/41AT, Model K1 for TR-2500, 3500, 2600 series. Slides on bottom of radio. Model K for TR-2400. Thru battery plug.  
 YAESU - Order Model Y for KT-207R, Wilson. Fits in battery compartment. Model N for FT-203R, 208R, 209R, 727. Powered thru plug on radio bottom.  
 ICOM - Order Model I for all Icom (2AT/02AT). Slides on bottom of radio.  
 TEMPO, SANTEC - Order Model T (Simple mod). Write for spec sheet/info on other radios.  
 \*\*\*\*\*  
**HANDI-TEK**  
 P.O. BOX 357 • PINON HILLS, CA 92372  
 \*\*\*\*\*  
 World Radio History



# Steam train trips

Docents (volunteers) from the California State Railroad Museum in Sacramento operated a special event station, May 2-3, in celebration of the fourth anniversary of the running of steam excursion trains in Old Sacramento State Historic Park.

Station WB6RVR/6 made 418 contacts during the two-day operation, including 40 states and four countries (Canada, Japan, New Zealand and Australia). Equipment used to get these contacts: a Yaesu FT-101 (40 meters), and an FT-757 and FL-2100 Linear (20, 15 and 10 meters). Antennas used were

an inverted Vee (on a flagpole) and a TA-33 tribander (on a cherry picker).

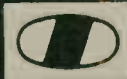
Operating the station were: Don Bozarth, WA6PBN; John Pesely, W6EFM; George Robison, K6JIK; Norm Lucas, WB6RVR; and Norm's XYL — Sheila, KB6PIN. All are volunteers at the Railroad Museum. Guest operators (not associated with the museum) were Mike McCorduck, WR6A, and Al Thearle, WB6RUU.

The steam excursion trains (Sacramento Southern Railroad) are run annually by museum volunteers. The season begins the first weekend in May and ends the first weekend in September (excluding July 4th weekend). Last sum-

mer, over 50,000 passengers were carried during the 37 days of regular operations. □



Passengers watch as steam engine moves to the front of the train.



# ICOM

# KENWOOD

# YAESU



IC 735

HF Equipment	List	Juns
IC-761 New Top Of Line	\$2499	Call \$
IC-735 Gen. Cvg Xcvr	999.00	Call \$
IC-745 Gen. Cvg Xcvr	1049.00	Call \$
IC-751A Gen. Cvg. Xcvr	1649.00	Call \$
<b>Receivers</b>		
IC-R7090 25-1300 + MHz Rcvr	1099.00	Call \$
IC-R71A 100 kHz-30 MHz Rcvr	949.00	Call \$
<b>VHF</b>		
IC-275A All Mode Base w/PS	1199.00	Call \$
IC-275H All Mode Base 100w	TBA	Call \$
IC-271A All Mode Base 25w	859.00	Call \$
IC-27A FM Mobile 25w	429.00	Call \$
IC-27H FM Mobile 45w	459.00	Call \$
IC-28A FM Mobile 25w	429.00	Call \$
IC-28H FM Mobile 45w	459.00	Call \$
IC-38A FM Mobile 25w	459.00	Call \$
IC-2AT FM HT	299.00	Call \$
IC-02AT FM HT	399.00	Call \$
IC-μ2AT Micro HT	329.00	Call \$
<b>UHF</b>		
IC-475A All Mode 25w	TBA	Call \$
IC-471A All Mode Base 25w	979.00	Call \$
IC-47A FM Mobile 25w	549.00	Call \$
IC-48A FM Mobile 25w	459.00	Call \$
IC-4AT FM HT	339.00	Call \$
IC-04AT FM HT	449.00	Call \$
IC-μ4AT 440 FM HT	TBA	Call \$
IC-3200A FM 2m/70cm 25w	599.00	Call \$
<b>220 MHz</b>		
IC-375A All-Mode, 25w, Base Sta.	TBA	Call \$
IC-38A 25w FM Xcvr	459.00	Call \$
IC-37A FM Mobile 25w	499.00	Call \$
IC-3AT FM HT	339.00	Call \$
IC-03AT Deluxe HT	449.00	Call \$
<b>1.2 GHz</b>		
IC-1271A All Mode 10w	1229.00	Call \$
IC-120 1w, FM, Xcvr	579.00	Call \$
IC-12AT Deluxe 1w HT	459.00	Call \$



TS-440S/AT

HF Equipment	List	Juns
TS-940S/AT Gen. Cvg Xcvr	\$2249.95	Call \$
TS-940S Gen. Cvg Xcvr	2049.95	Call \$
TS-930S/AT Gen. Cvg Xcvr	1849.95	Call \$
TS-830S Xcvr	1099.95	Call \$
TS-430S Gen. Cvg Xcvr	859.95	Call \$
TS-440S/AT Gen. Cvg Xcvr	1199.95	Call \$
TS-440S Gen. Cvg Xcvr	999.95	Call \$
TL-922A HF Amp	1499.95	Call \$
<b>Receivers</b>		
R-5000 100 kHz-30 MHz	899.95	Call \$
R-2000 150 kHz-30 MHz	649.95	Call \$
<b>VHF</b>		
TS-711A All Mode Base 25w	899.95	Call \$
TR-751A All Mode Mobile 25w	599.95	Call \$
TM-221A Compact FM 45w	399.95	Call \$
TM-2530A FM Mobile 25w	429.95	Call \$
TM-2550A FM Mobile 45w	469.95	Call \$
TM-2570A FM Mobile 70w	559.95	Call \$
TH-21-BT FM, HT	259.95	Call \$
TH-205 AT, NEW 2m HT	259.95	Call \$
TH-215A, 2m HT Has It All	349.95	Call \$
<b>UHF</b>		
TS-811A All Mode Base 25w	1049.95	Call \$
TR-851A 25w SSB/FM	699.95	Call \$
TR-9500 10w All Mode	649.95	Call \$
TM-421A Compact FM 35w	419.95	Call \$
TM-411A FM Mobile 25w	449.95	Call \$
TH-415A 2.5w 440 HT	359.95	Call \$
TH-41BT FM, HT	269.95	Call \$
TW-4100A, 2m/70cm FM	649.00	Call \$
TR-50 1w 1.2GHz FM	549.95	Call \$
<b>220 MHz</b>		
TM-3530A FM 220 MHz 25w	449.95	Call \$
TH-31BT FM, 220 MHz HT	269.95	Call \$



FT 757GX

HF Equipment	List	Juns
FT-ONE Gen. Cvg Xcvr	\$2859.00	Call \$
FT-980 9 Band Xcvr	1795.00	Call \$
FT-757 GX II Gen. Cvg. Xcvr	1079.95	Call \$
FT-767 4 Band New	1895.00	Call \$
<b>Receivers</b>		
FRG-8800 150 kHz - 30 MHz	599.95	Call \$
FRG-9600 60-905 MHz	679.95	Call \$
<b>VHF</b>		
FT-211RH FM Mobile 45w	459.95	Call \$
FT-270RH FM Mobile 45w	439.95	Call \$
FT-290RH All Mode Portable	579.95	Call \$
FT-23 R/TT Mini HT	299.95	Call \$
FT-209RH FM Handheld 5w	359.95	Call \$
<b>UHF</b>		
FT-711RH FM Mobile 35w	TBA	Call \$
FT-730R 10w 440 FM	399.95	Call \$
FT-770RH FM Mobile 25w	479.95	Call \$
FT-73 R/TT Mini HT	314.95	Call \$
FT-703R/TT 440 HT	299.95	Call \$
FT-709RH FM HT 4w	359.95	Call \$
<b>VHF/UHF Full Duplex</b>		
FT-726R All Mode Xcvr	1095.95	Call \$
HF/726 Module for 10,12,15M	289.95	Call \$
430/726 430-440 MHz	329.95	Call \$
440/726 440-450 MHz	329.95	Call \$
SU-726 Sate Duplex	129.95	Call \$
FT-690R MKII, 6m, All Mode, port.	569.95	Call \$
<b>Dual Bander</b>		
FT-2700RH FM 2m/70 cm 25w	599.95	Call \$
FT-727R 2m/70 cm HT	479.95	Call \$
<b>220 MHz</b>		
FT-109 RH New HT	379.95	Call \$
<b>Repeaters</b>		
FTR-2410 2m Repeaters	1249.95	Call \$
FTR-5410 70cm Repeaters	1289.95	Call \$

## JUN'S BARGAIN BOX SPECIALS-THIS MONTH ONLY

YAESU	FT-270RH 2m, FM, 45w	\$289.95
ICOM	IC-27A Compact 2m, FM, 25w	\$349.95
	IC-28A, FM, Mobile	CALL! CALL!
KENWOOD	TH-215A Full Featured, 2m HT	SPECIAL SALE
	TH-205 Affordable, 2 mHT	CALL FOR PRICE

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# PUBLIC SERVICE

## CA youth found

On Sunday, May 3, the Amador County ARC and the Blue Mountain Search and Rescue team participated in the search and rescue of Scott Rice.

Scott was camping with his family at Salt Springs Reservoir. He got lost Saturday and was reported missing at 3:45 a.m. Sunday. Scott was found at 10:18 a.m. the same day.

Thanks to local hams and authorities, Scott is safe and sound. — *Bill Philpott, KB6NJV* □

## Hams serve SEATAC

### Vic Zum Brunnen, WB7TBR

About 20 operators from the '08 Repeater Group and the Mike & Key ARC ran the Amateur Communications Center at the SEATAC Airport (Seattle, Washington) for about 72 hours between December 19 and December 26.

A booth was set up near the Alaska Airlines ticket counter, while an "abandoned" HF station in the penthouse above the terminal was reactivated using equipment loaned from ICOM, AEA and Tandy.

Over 230 messages were taken from incoming and outgoing passengers. Various means were used to pass the traffic, including 2-meter packet, HF nets and MARS.

Problems? A few, including RFI at the airport, an incomplete antenna system at the HF station, insufficient operator experience with packet and traffic handling, and insufficient time prior to the operation to line up a wide variety of nets to handle that much traffic.

The Port of Seattle personnel's cooperation was outstanding. Electricians were assigned to upgrade the HF antennas; a phone line was run to the booth; a secretary and copy machines were made available; tables, chairs and floor space were assigned to the operation.

This was a "first-time" try at this, so considering the circumstances, the operation was a huge success. Hundreds of people were exposed to Amateur Radio (some expressed real surprise to find the service was free). Volunteer operator and XYL support was great. A big thank you goes out to those who supported this worthwhile activity. □

Check your license expiration date.

## Radio in 10th Pan American Games

Athletes from 38 Pan American countries will begin arriving in Indianapolis, Indiana in late July 1987, to participate in the 10th Pan American Games being held in August. As they arrive, they will receive information in their own language, describing how they can send messages back to their home towns. They may send either a numbered ARRL Radiogram or a message they write, up to 15 words. They will also be shown where the Village Message Center is located. It is from this message center that traffic will be collected, sent out and received.

In the Village Message Center, there will be an Amateur Radio station — W9JP. W9JP is the club call of the oldest Amateur Radio club in the area, the Indianapolis Radio Club. Mike Galloway, WA9AVQ, and his committee have worked with the village mayor to set up this part of the Amateur Radio participation in games. The village station will have 2M FM, packet and 440 FM capability.

Inside the village parameters, security is being maintained at a very high level. Only the individuals necessary to operate the village are allowed in, and only when they are per-

forming a valid function. Amateur Radio operators will be there. Visiting athletes, coaches and their staff who hold valid licenses may stop by and operate if there is a reciprocal operating agreement with their country. Visitors from outside the village will not be allowed in.

To overcome this minor inconvenience, the primary station, W9PAX (W9 Pan American Ten), has been set up in Indianapolis outside the security area. It will have contact with W9JP by 2M and packet. W9PAX will have three rigs capable of operating on HF bands simultaneously. There is room at this station for visitors, and anyone visiting from any of the 38 countries will be welcome to stop by and operate, depending on their license and reciprocal agreements. Kurt Pauker, KT9M, and his committee have worked for several months to set up the station, build a parking facility and to make sure the antennas and rigs will operate properly.

Traffic originated from the Village Message Center will be routed to W9PAX, or the Indianapolis American Red Cross ARC station, WB9LGQ. From these stations, the traffic will be placed into the ARRL National Traffic System, or, in some cases, direct to the participating country. The same stations will be used to bring traffic back in.

Incoming traffic should be addressed to the individual athlete, coach or staff member, naming the country they are representing, c/o W9JP, PAX Athletes Village, Indianapolis, Indiana.

Because of the large number of visitors in Indianapolis during the games and the requirement for providing security for these individuals, communications between the athletes and their loved ones back home will be limited. This service provided by the amateurs will help overcome this inconvenience and at the same time test our capabilities of handling traffic in other emergencies.

The stations to be used, W9SU for W9PAX, WB9LGQ and W9JP have been used in the past for emergency communications between the United States and our friends in other Pan American countries.

This will also be a time to enjoy our hobby. During the time of the games, you might want to collect QSL cards from each of these stations: W9PAX, The Official Pan American Games Station; W9JP, The Athletes Village Station; WB9LGQ, Traffic Outlet; and WA9MPV, Operation Net Station. — *Cornelius M. Head, WB9ZQE* □



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If you don't have time to read books & take notes at home for the theory exams or spend hours copying code practice you can learn them by simply listening at your leisure. You will learn not only the exact questions and answers on your test but the detailed theory behind each one. You will thoroughly understand what you are being asked and why the answer is correct.

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(714) 990-8442





Jon Westveer, ID9EUH

## ID9 request

I am Navy Retired RMC and need a host of things: Phones (WWII), keyboard, transceivers/receivers, iambic code keyers, sideswipers, amplifiers, beams, etc. I had a stroke and am wheelchair-bound. Can't talk, but I have retained use of my left hand.

(I am the only one at Lipari Island, if you want an ID9 — I am on 14050.)

**JON WESTVEER, ID9EUH**  
P.O. Box 20  
98055 Lipari Island (ME)  
ITALY

## NEEDED: MM nets for Novices

Without a doubt, the section by Gordon West on *MARITIME MOBILE* (Ed: now called *MOBILE*) is the best, if not only, of its kind. It provides my rationale for subscribing to *Worldradio*.

During the last few months I was able to assist two yachtsmen in obtaining their Novice Class licenses. Both of these are about to embark on circumnavigations (starting from the West Coast) and plan to use Amateur Radio in the process. Timing is such that neither one has the time to study for upgrading to General.

I know of other yachtsmen in the same boat (no pun meant), and I'm certain that West does also. Unfortunately, none of the maritime mobile nets that I know of fall inside the Novice bands; there is one CW net, but that also is outside their parameters.

If you or any of your readers know of such a net, especially any covering

the Pacific, I would appreciate hearing about it. Meanwhile, assuming there are no such nets, and given all the noise being made about Novice enhancement and added privileges, it seems timely that assistance be extended in helping establish maritime mobile nets in the Novice sub-bands.

I am not in a position to be Net Coordinator (and besides I am not a Novice), but — in the event there are no immediate volunteers — I could assist in the preliminary stages including receiving and directing correspondence and helping to locate a coordinator(s).

**JOHN A. MENZ, NT6M/MM**  
P.O. Box 2508  
Novato, CA 94948

*JOHN — A good idea, and I hope we can get a lot of help from seaside hams. — Gordon West, WB6NOA* □

(please turn to page 20)

### MULTI BAND TRAP ANTENNAS

TRAP DIPOLES:			
Model	Bands	Traps	Length
D-42	10/15/20/40	2	55'
D-52	10/15/20/40/80	2	105'
D-56	10/15/20/40/80	6	82'
D-66	10/15/20/40/80/160	6	163'

TRAP VERTICALS -- "SLOPERS" --			
Model	Bands	Length	Price
VS-41	10/15/20/40	1	28'
VS-52	10/15/20/40/80	2	49'
VS-53	10/15/20/40/80	3	42'
VS-64	10/15/20/40/80/160	4	73'

\* Can be used without radials  
\* Feed line can be buried if desired  
\* Permanent or Portable Use

ALL TRAP ANTENNAS are Ready to use - Factory assembled - Commercial Quality - Handle full power - Comes complete with: Deluxe Traps, Deluxe center connector, 14 ga Stranded CopperWeld ant. wire and End Insulators. Automatic Band Switching - Tuner usually never required - For all Transmitters, Receivers & Transceivers - For all class amateurs - One feedline works all bands - Instructions included - 10 day money back guarantee!

SINGLE BAND DIPOLES (KH form):			
Model	Band	Length	Price
D-15	15	22'	18 95
D-20	20	33'	19 95
D-40	40	66'	22 95
D-80	80/75	130'	25 95
D-160	160	260'	34 95

Includes assembly instructions, Deluxe center connector, 14 ga Stranded CopperWeld Antenna wire and End Insulators.

**COAX CABLE:** (Includes PL-259 connector on each end)

Type	Length	With antenna purchase	Separately
RG-58	50'	\$8.00	\$11.95
RG-58	90'	12.00	16.95

**DELUXE CENTER CONNECTOR**

- NO RUST Brass Terminals
- NO Jumper Wires Used
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- Built-in Lightning Arrestor
- With SO-239 Rearplugs
- Handles Full Power
- Completely Sealed, Weatherproof
- Easy Element Adjustments
- Commercial Quality

CE-1 \$8.95

**DELUXE ANTENNA TRAPS:** Completely sealed & weatherproof - Solid brass terminals - Handles Full Power - NO jumpers - NO Soldering - Instructions included.

- For 4-band Dipole Ant. 40/20/15/10 \$36.00/pr.
- For 5-band Dipole Ant. 80/40/20/15/10 \$38.00/pr.

ORDER DIRECT FROM FACTORY. All orders shipped US Postpaid. VISA/MC - give card #. Exp. date, Signature

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Here's how it works:

1. Turn on the Tuner-Tuner. You'll hear a loud S9+ noise.
2. Tune your tuner until the noise drops out completely.
3. Turn off the Tuner-Tuner.
4. Start transmitting. SWR will be 1:1.

What could be simpler? You can tune up while listening to the other station call CQ. No need to move off frequency to tune up. No need to cause interference while tuning. No need to operate your rig into anything but 1:1 SWR.

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# Silent Keys

## Hugh Garner, W4YZF

In the course of our lives, we occasionally come in contact with someone who becomes a special friend — one that is caring and helpful to others. My special friend was Hugh Garner, W4YZF, of Valley Station, Kentucky.

Hugh died Tuesday, May 19, of a heart attack. He was 59 and a retired engineer for WHAS-TV, Louisville. Whenever one of Hugh's friends had a technical problem, they always knew Hugh was there. He will be sadly missed by his many friends. — *Harold Marlette, K9JYA* □

## Cancer victim dies waiting for license

Walt Baranger, N6HKD

Confined to his house by cancer, Robert B. Harrod, Sr. waited each afternoon for the mail to bring his lifetime dream — an Amateur Radio license that would open a window to the world.



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Complete kit includes winch, 100 ft. of cable, hardware and instructions. For Rohn 20 and 25 G Towers.

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Ball Thrust bearing TB-25 for any of above \$42.50 ppd.

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When the license didn't come, his senator intervened.

"Your license will be issued May 6," Sen. Peter Wilson, R-San Diego, proudly informed him at the end of April. The letter went on to say that Harrod should receive the document a few days after that.

So Harrod waited anxiously, bedridden with the ham radio sitting next to him. He was buried May 12.

"He lived each day for it," said his widow, Gloria. "He said, 'Well, that's like the whole damned system. They never do anything right.'"

Wilson aide Ira Goldman called Harrod on May 5 to tell him his call sign, KB6RXL, had been issued. But he also was told he could not use his radio until the yellow and white piece of paper got there.

"He knew the rules say he has to have it in hand, so he never went on the air," Goldman said. "The fact that he didn't go on the air, waiting for that certificate, makes it doubly sad."

An FCC official, as of the 12th, did not know exactly where the license was — except that it should be in the mail. Darlene Reeder confirmed it was issued May 5, when the computer assigned the call letters. After that, it had to be printed out and mailed.

When asked why the license couldn't have been speeded up or why Harrod couldn't start using the radio without the piece of paper, Reeder answered repeatedly: "There's nothing we can do."

"I know the FCC is so backed up, they will have issued a call sign, but it will be awhile before the license is issued," said John Hennessee of the American Radio Relay League. "Two people do the processing for all of the services."

He said attempts to speed up licensing for humanitarian reasons usually

fail. "It's been to no avail. There's nothing that can be done to speed up the licensing process."

Without the license, Harrod's world ended at his front door.

The shortwave transmitter, which would have allowed him to talk to radio amateurs around the world, was never used. A large antenna erected by friends over his San Ysidro house never sent a radio signal.

"He wanted so much just to say a few words," said Mrs. Harrod. "He was still able to talk until the last two days."

Harrod began his trek for the license in March, when he took the two-part Amateur Radio examination.

"I spent 29 years in the Navy (as a radioman), and I was always gone when it came to taking the test," he said last week in an interview as he waited for the FCC license to arrive. His extensive travels as a Navy civilian employee later kept him from taking the test.

In September, he collapsed on the job and cancer was diagnosed.

"They gave him six to nine months," Mrs. Harrod said. "They were right."

"I'd been studying for years for my ham license, but I forgot all my formulas," he said. "I lost 50% of my (Morse) code, but I took the test at 16 wpm and then took the rest of the test. It got me through, and that was the main thing."

When Mrs. Harrod realized her husband might not survive the two- or three-month wait, she contacted Wilson's office on April 14.

Reeder said the application was handled faster than usual, but still had to wait its turn to be processed by the computer. "There really wasn't a way to bypass the computer, she said.

While his application was stalled in Pennsylvania, Harrod waited and dreamed of a chance to visit the world by radio.

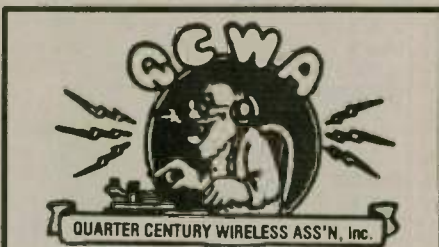
"I'll be able to talk to all the guys," he said during the interview, looking at his computer-assisted radio. "... There are a jillion things it can do.

"I have a brother-in-law, a licensed ham, in Moscow, Idaho. I can talk to him."

Harrod waited and spoke of obtaining a higher-class amateur license.

"All you can do is take things one day at a time. I'll keep studying ... I'm not going to give up."

—*San Diego Union; submitted by Paul Hower, WA6GDC* □



An organization of amateurs licensed over 25 years who are interested in preserving the history and traditions of Amateur Radio and in pioneering the developments of the future.

For Information, write:

Quarter Century Wireless Association

1409 Cooper Drive Irving, TX 75061

Our mother-in-law used to check our radio log to see if we were in church Sunday mornings.



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Tune up fast, extend life of finals, reduce QRM! Rated 1KW CW or 2KW PEP for 10 minutes. Half rating for 20 minutes, continuous at 200 W CW, 400 W PEP. VSWR under 1.2 to 30 MHz, 1.5 to 300 MHz. Oil contains no PCB. 50 ohm non-inductive resistor. Safety vent. Carrying handle. 7 1/2x6 1/4 in.



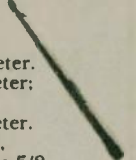
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# Off the Air

(continued from page 17)

## Chicago BBS grows

I am happy and proud to announce an expansion to the "Need A New Name" Amateur Radio computer bulletin board service. Founded just over a year ago, the "NANN" BBS is fast growing into one of the more popular Amateur Radio-related BBS's in the Chicago area.

In addition to the usual message base we have the following features on a regular basis: The ARRL Gateway Packet Newsletter, The W5YI Report, The ARRL Letter, Hamfest information, W1AW schedule information, Chicago area radio club meeting notices, Amateur Radio classes, Volunteer exam information, Selected special event stations, Selected contests and Monthly "event" calendars.

Now we have added Amateur Radio downloads. These are public domain programs suitable for many different types of computers.

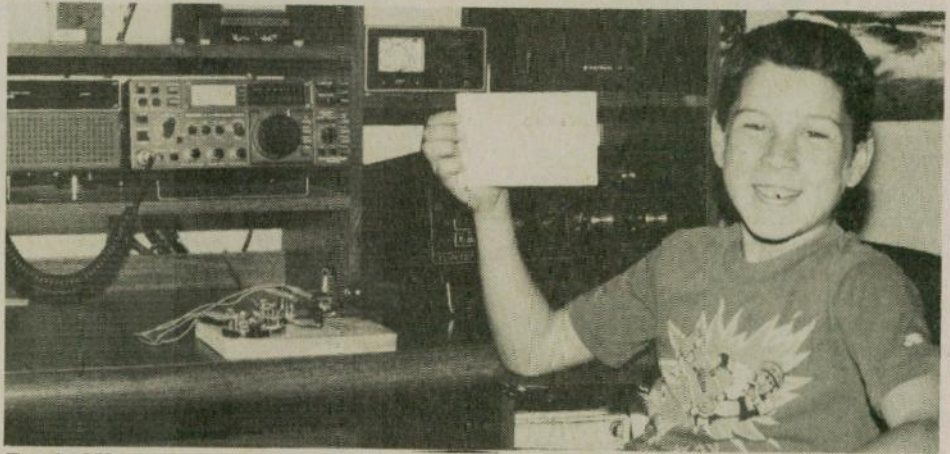
The "NANN" BBS operates on a TRS-80 Model IV utilizing the TBBS (The Bread Board System) communications package. We are not restricted to TRS-80 equipment, though. Any make of computer is able to access our system. Our system parameters are 300 or 1200

baud, 8 bit word length, 1 stop bit and no parity.

All Chicago area clubs are welcome and encouraged to use this BBS for all of their Amateur Radio and/or club-related activities. The 24-hour number is (312) 529-1586. For more information, please leave me a message on the system or write to me at the address shown below.

Club bulletin editors are welcome to make use of any information posted on the board as long as proper credit is given. I would appreciate the dissemination of this notice to your club members via nets or newsletters.

**RICHARD BAUER, N9DKO**  
151 Algonquin Street  
Park Forest, IL 60466



Ronie Weaver, KB6OLU, proudly shows off the QSL card he received from Hermann Atzlinger, OE5AHL — his first on-the-air contact!

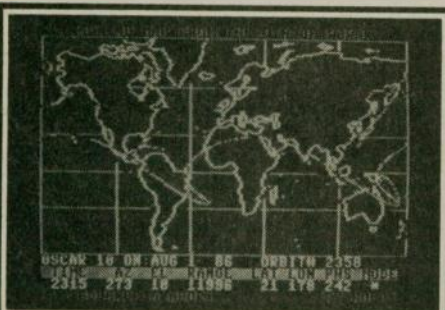
## New ham already busy making contacts

Hello. My name is Ronie Weaver and my call letters are KB6OLU. I got my Novice ticket October 14, 1986. My first QSO was with OE5AHL (Hermann Atzlinger) in Austria and I have worked Canada, Japan, Washington, Indiana and Nebraska as well. My rig is an IC745 and a 4-element beam on 10 and 15 meters with dipoles on 40 and 80 meters.

My age is 9, and I live in Irvine. I play football in the Irvine Junior All-Ameri-

can Football League as a fullback. My dad is N6VO and the reason I got interested in radio and DXing, since he is a DXer and goes on trips around the world and visits many hams. I want to be a policeman or pro football coach when I grow up.

Thank you for the chance to tell you about myself. QRZ DX DE KB6OLU.  
**RONIE WEAVER, KB6OLU**  
Irvine, California



## SUPER VR-85

A Satellite Tracking Program  
For the Commodore 64

VR85 is the most popular software tracking aid in use for the C-64, and now SUPER VR-85 continues the tradition of bug-free operation, strong user support, and ongoing development. New features include graphical and tabular representation of the mutual acquisition zone, and user port output for automatic antenna steering when using an AUTOTRAK™ board. Much of the program is now in machine code and operates with a more professional feel.

### FEATURES:

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- But if you have a problem just give us a call.

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AUTOTRAK™ is a trademark of NH Enterprises.

## Old-timer voices his opinions

The continuing section "Code matters" is BAD BAD BAD! Of all of the Left Wing Radical thinking, this is almost the tops. Give all a license; don't ask for a test of any kind. After all, "Are not all people entitled to everything on an equal basis, deserving or not?" BAH BAH BAH!

Please read page 10 of the April issue. Anyone who cannot copy a code test better than shown, *does not* deserve a ham license. "Class oll iyenseis a v nce" If an applicant, at 5 wpm, can't copy better than that, do you mean to tell me they should get right on the ham bands clutching their HT's and yelling, "I'm going to save the world. I'm a ham — I can talk"? NUTS. If this is the way things are going, then forget any license at all. Just let everyone go out and buy an HT. Have someone show them how to change and charge the battery (most

don't know any more than that) and turn 'em loose.

The February 20th issue of *Westlink* has a story about Slowcode Backlash at the Wheaton, Illinois hamfest — idiots selling off their 220 rigs because the Novices now have authority to operate on 220 and other bands. BOY OH BOY am I happy I don't live there. What a strange group. Cry babies fear the Novices will take over. I hope they do! It might be a welcome change in that area.

In the last 50 years, I have seen it all, I thought, but no... there is always something new under the sun.

**BART PAINE, K7CC**  
Tucson, Arizona

Almost any Amateur Radio club publication will work — if the editor will.



## We need more hams like Carole Perry

I am not a person prone to writing letters unless moved enough to do so, and this "YL" has done just that. This letter is overdue. I belong to three of the radio clubs here on Staten Island — NYCARA, SIARA and SIARC. I am privileged to claim membership in the same clubs as one Carole Perry, WB2MGP.

If ever there was someone who typified the true spirit of our "hobby", it is Carole. She has appeared in numerous articles (Worldradio included) throughout the years, describing her work with her classes in Amateur Radio at I.S. #72 on Staten Island, New York, but I feel much more needs to be said.

One can't go too far on Staten Island without "bumping" into a neighbor, a parent, a colleague or a fellow ham who hasn't had a contact with Carole, or who hasn't had a child in her program. More important than the "Amateur Radio experience" these kids are getting is the enormous value of the good will toward our hobby and toward people all over the world, via Amateur Radio.

I had the honor of being one of the volunteers to participate in the NASA contact with the space shuttle *Challenger* with Tony England, W0ORE, aboard in 1985 at I.S. 72. It was one of the first times all the hams on Staten Island put their differences aside and worked together as a team to help Carole with her venture. She was the "figure head and spark plug" that got all of us to work together as a team.

Let me tell you, it was some experience for me. I'm no kid, a grandpa don't you know, but I found myself caught up in the excitement of it all, and it will stay with me a long while.

Now listen to this. Re: getting hundreds of kids to come to school (an amazing feat) . . . during their summer vacation, to help with preparation for the space shuttle contact. At every major parade or fund-raiser on the "Island", you know you will see Carole and her kids.

Kids . . . our kids — yours and mine — are the greatest natural resource America has, and Carole WB2MGP is showing us all just what can be done if we try. I, for one, think the time has come for this "YL" to expand her teaching technology, and make it available to others in the field. Over 300 youngsters a year go through her "magic program." Of course, not all the young people become hams, but WB2MGP's success rate is considerably above the average, and the students leave feeling good about themselves and about Amateur Radio.

We need many, many more like WB2MGP.

EDWARD LA TOUR, KA2TXL  
Staten Island, New York



Carole Perry, WB2MGP, shows students a "base station" that was constructed out of shoe boxes and cartons. The rigs were used as props in Archie comic book skits.



## Remember Anred?

Some time a few months back, a friend of mine purchased some old 1920 radio equipment. The equipment was from the estate of an old man, age 94. The friend found that the man was an Amateur Radio operator. I have enclosed his QSL card, as perhaps some of your readers knew him.

According to an old brochure I have, he serviced radios in San Francisco at his store, Anred Radio Electronics Company, 4366-17th Street. His name was E.M. Helmsdoerfer and his call was 9EAK.

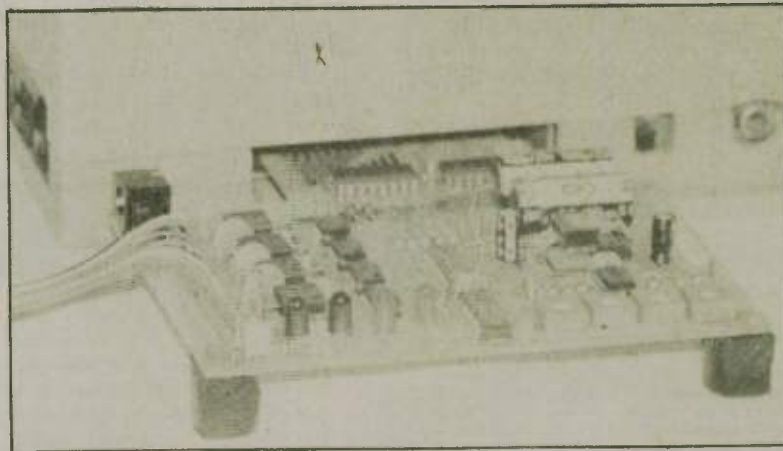
WALT SCHIVO, KB6BKN  
Novato, California

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for C64 and VIC20

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AUTOTRAK module for C64 or VIC20. Plugs into user port of your computer. This module interfaces to many popular rotors, such as any Kenpro, HD73 etc. Comes complete with board, power supply and K7NH tracking software. A small modification of your controller may be required. Write for details telling us what computer and rotors you're using.

AUTOTRAK — \$129.95 complete and tested. 1 week delivery. \$20.00 PCB only w/instr and parts list. Add \$15 to substitute new SUPER VR85 tracking program.

Satellite tracking programs by K7NH. Colorful with world map, realtime operation, AOS, scheduling, printer, etc. Exceptionally easy to use and update.

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N H Enterprises, 22104 65th Ave W. • Mountlake Terrace, WA 98043.  
Washington residents add 7.8% sales tax.



## Weekend Novice - voice class

Gordon West, President of Radio School, Inc., announces the continuation of their popular series of weekend Amateur Radio classes for beginners.

"These are not cram courses," comments West, WB6NOA, recent recipient of the ARRL "Instructor of the Year" award. "These seminars are simply an accelerated compression of learning information for our many students who cannot take our regular college evening classes."

Three weekend classes are planned for this summer: *July 31, August 1-2* — Orange County, CA; *August 7, 8, 9* — Atlanta, GA; *October 30-31, November 1* — Marina Del Rey, CA.

"West's evening ham classes are always a sellout, so our one weekend class is a natural," comments a Coastline Community College spokesperson. Recent Novice enhancement publicity has caused a flood of inquiries to the local college district for more beginner classes than Gordon West has time to offer in the evenings.

A complete code and theory program with over 20 hours of instruction will be provided in these seminar settings. Beginner code will be generated at 13 wpm, but spaced to 5 wpm — meeting ARRL and FCC code teaching guidelines. Students will practice with furnished code keys and oscillators, and all code sessions will also include actual on-the-air sending and receiving for added practice. Loraine McCarthy, N6CIO, amateur Extra Class, will supervise the integrated code program.

Are these courses just another bash

of rapid licensing schemes? Gordon West says, "No."

"We have carefully planned our code and teaching syllabus that integrates actual equipment operation into every hour of our instruction. Local hams are invited to come down and see for themselves that these weekend classes will be run just like our regular three-hour evening college classes — instruction in both code and theory to pass the examination as well as equal amounts of instruction on how to be good hams and how to operate properly on the air," adds West.

West encourages volunteer examination teams to vie for testing his students. "We will accept volunteer examination teams under the ARRL or W5YI system. We specifically don't examine our own students to assure the ham community that we are teaching more than what might be on a single test," comments West.

All instructional subject matter parallels the FCC syllabus and the ARRL instructor guidelines.

Gordon West best sums up these weekend classes by indicating that good Amateur Radio operators begin the true process of learning the material they have just learned to pass the test while actually operating on the air.

For more information about the beginner classes, as well as weekend seminars that may soon be scheduled nationally, contact Gordon West, Radio School, 2414 College Dr., Costa Mesa, CA 92626. Call (714) 549-5000, Monday - Friday 10 a.m. to 4 p.m. □

## Amateur "Hi"

*Ever had a funny or strange experience with Amateur Radio, either on or off the air? If so, type it up (or print neatly) and send it to us for consideration in our monthly AMATEUR "HI" contest. You could win a free year's subscription to Worldradio!*

*Paul Gardner, N4NXM/AE, of Destin, Florida wins AMATEUR "HI" this month. Congratulations, Paul! You'll be receiving a free year's subscription to Worldradio.*

I was very excited the day I got my Amateur Radio Novice license and could hardly wait to operate CW on the air. I'd bought a keyer and transceiver at our hamfest right after passing the exam, and listening to QSO's every night whetted my appetite to communicate.

My "Elmer" — Leonard Waechter, WD4KKV — generously volunteered to help hook up the new rig and check it out. But covenants for the subdivision where I lived restricted outside "broadcast-type" antennas, and I cautioned Len *not* to tell my neighbors that I would be a budding ham in the area. So we decided to install an unobtrusive wire dipole antenna in the attic. Unfortunately, lots of other wires are up there.

In spite of all the sweat and struggle getting around in the hot attic, full of fluffy pink insulation that itched so much I almost quit, we finally got the job done . . . and I was very pleased when Len checked the SWR at 1:2 on 40M.

Unfortunately, such was not the case on the 80 and 160M bands, where it was over 3 — too high for safe continued operation of my rig. And when I transmitted, the high RF energy rattled the wiring strung in the walls. Consequently, we decided to use only the higher frequencies that were within tolerance.

We tuned up, made some calls, and everything seemed to be working fine (thanks to good propagation). After several QSO's, Len decided to leave, satisfied with the set-up. He missed the panic that ensued that night.

Sometime after 10 p.m., my XYL turned off the TV and went to bed. I locked up the house, set the burglar alarm, and slipped quietly into my shack in the den for one last look at my new pride and joy. I put on the headset, quickly tuned up, and found nothing but heavy QRN on the band. I'd never heard so much noise!

## Are you radioACTIVE?



Dean LeMon, KRØV sure is! Dean got active in Amateur Radio when he was 16 years old and earned his Extra Class license in less than four years! "It's a fascinating hobby and a great

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

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



Call or write the Courage HANDI-HAM System WØZSW at Courage Center, 3915 Golden Valley Road, Golden Valley, Minnesota 55422, phone (612) 588-0811.



Just as I was about to QRT, curiosity got the best of me and I dialed down to 80M. Lo and behold, someone was sending "CQ" — a clear and readable signal at a nice easy pace! Without a second thought, I keyed to send a reply as soon as the station stopped calling. RF energy bristled the hair on my arms and I immediately had an uneasy feeling that something was wrong. A moment later my XYL burst into the room, pulled my headset off and screamed: "What are you *doing*? You've set off the alarm . . . that siren will wake the whole neighborhood!" She was right.

I dashed into the hallway where the security control box was located to disarm the system. Too late. The doorbell started ringing and someone pounded loudly on the front door. I ran and yanked it open. There stood my neighbor from across the street . . . a retired Air Force colonel . . . shivering in his bathrobe. He had a small birdshot rifle tucked under his arm. Alarmed, I looked around to see lights coming on in houses everywhere in the neighborhood!

"Need some help?" he asked with a sagacious grin.

Before I could stammer an answer, a sheriff's vehicle whipped around the corner and screeched to a halt in front of the house, blue lights flashing. A uniformed deputy jumped out of the car, drew his revolver and cautiously advanced toward us. He glanced around to sum up the situation. Satisfied there was no real threat, he holstered the weapon and confronted me . . . hands on hips and a sneer on his face.

Needless to say, I had lots of explaining to do. It became more embarrassing as I rambled on. An endless stream of curious neighbors came to see what was going on. Darn it! My *ham secret* was out.

Around midnight, after I'd signed the last county investigative form and answered all the questions from well-meaning neighbors, I quietly closed the door and let out a sigh of relief. Somewhat depressed, I slunk back to the shack to turn off my rig. And you can bet that I wasn't *about* to answer the plaintive "CQ" — chirping loudly through the speaker — as I walked in to the den!

*NOTE: Paul Gardner is a retired Air Force Brigadier General who earned his first license as a Novice (KB4RWO) early last year.* □

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## Dxer visits States

Bruce Egalka, D.M.D., WT4T

Phil Weaver, VS6CT, a well-known Dxer residing in Hong Kong for the past 12 years and employed by the Hong Kong government as a top-echelon Marine Department administrator, spent some two months on holiday here in the States.

I had the pleasure to meet Phil originally in 1984 when he was net control for XU1SS in Cambodia.

During Phil's three-week stay in the St. Petersburg area, he was able to keep in touch with his many worldwide friends by operating my station (WT4T), using his reciprocal VS6CT/W4 license!

After leaving St. Petersburg he visited John Ackley, KP2A, in St. Thomas in the American Virgin Islands, where he made some 4,000 contacts and worked 136 countries.

I'm sure this news item will be of interest to the large number of hams who worked Phil from KP2A. □



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# AWARDS

## Art contest 'Youth in Amateur Radio' winners

The three grand prize winners in ARRL's "Youth In Amateur Radio" contest are: Daniel Wolfgang, age 11, Middletown, Connecticut; Brian Turney, KB4JZG, age 15, Niceville, Florida; and Dorian Custodia, age 18, Sellersville, Pennsylvania.

Each grand prize winner received a \$100 savings bond and had their artwork exhibited at the national "Youth in Electronics" contest, which is sponsored by the National Telecommunications and Information Administration. This contest is part of a worldwide contest sponsored by the International Telecommunication Union in Geneva, Switzerland.

All three ARRL entries were chosen at the national contest to represent the United States in Geneva where they will compete for additional awards. — *The ARRL Letter* □

## Sesquicentennial

To celebrate Michigan's 150th birthday, the Monroe County Radio Communication Association is offering a Michigan Sesquicentennial Certificate. The certificate is printed on heavy parchment and is suitable for framing. Every confirmed contact with a station located in the state of Michigan is worth 3 pts. A minimum of 150 pts. is necessary to earn the certificate.

Contacts may be made on any band and any mode. However, no station may be worked more than once, and "store-and-forward" BBS systems may not be used. (This does not eliminate repeater or digipeater contacts.) A special endorsement is available for working all 83 Michigan counties. Contacts must be made between January 23, 1987 and January 23, 1988.

To apply for the certificate, send a list of stations worked including call, name, band, mode and time/date, and a letter from a local club officer verifying your QSL cards to MCRCA, P.O. Box 384, Monroe, MI 48161. Please include \$1 to cover return postage and handling (no IRC's). Applications for the certificate must be postmarked no later than June 30, 1988. □

## Kilo-QSO Certificate

ARS N6NKN will be sponsoring the California Kilo-QSO Certificate award. The certificate will be offered to amateurs working enough California stations to accumulate 1,000 QSO pts., from January 1, 1988 through December 31. All bands and all modes are allowed, but each California station may be worked only once for QSO credit.


All contacts must be verified by QSL cards. Contacts made on 0001Z January 3, 1988 through 2400Z January 3, 1988 are worth 5 pts. and contacts made thereafter are worth 1 pt. Contacts made with Orange County, California stations on January 3 are worth 10 pts. and 2 pts. thereafter. (Orange County QTH must be stated in log.)

A plaque will be awarded to the first station to submit verification of 1,000 QSO pts. and to the first station to submit verification of 1,000 QSO pts. by working only Orange County stations. Numbered certificates will be awarded to all stations who accumulate 1,000 QSO pts. within the calendar year 1988. Special certificates will be awarded to stations who accumulate 1,000 QSO pts. by working only Orange County stations.

Each contact must be verified by QSL, but QSL's need not accompany application. Your logs need only be certified by yourself and two other Amateur Radio operators.

For applications and official log; send #10 SASE to: ARS N6NKN, R.J. Zolla, 3106 Ginger, Apt. D, Costa Mesa, CA 92626. □

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## The NR1LID Award

At the risk of trodding on a few toes, the NADXA (Northern Arizona DX Association) proudly announces a prestigious new award — the NR1LID Award.

This award is the brainchild of the well-known and respected (feared by some) amateur, known out here in the West as the "Cactus Kid" — I mean "Cactus Lid." His call "NR1LID" was the last "special call" issued by you-know-who before they went to computer generated calls.

Cactus has given the NADXA his special blessing to issue the award. The only iron-clad rule he insists on is that there be no nominations for the award. It must be applied for by the individual.

To earn this outstanding award, you must use the following chart and come up with a total of 25 points. (Points earned during 2M operation do not count for this award for obvious reasons.)

1) Calling "QRL" followed by "CQ" within 3 milliseconds — 6 pts.

2) Calling "QRZed the frequency" — 4 pts. Tech. license — 0 pts.

3) Repeating everything the guy sent you as "ur QTH is . . . ur name is. . ." 2 pts.

4) Using "By Golly" on any band other than 10M fone — 4 pts.

5) Tossing your call in a pileup when you don't even know who they're calling — 2 pts. SSB — 1 pt.

6) Holding down the key on an interfering station (unless it's on a Mexican weather net on low end of 40M) — 5 pts.

7) Calling someone else a LID (even if he is) — 5 pts.

8) Sending "SK" after your call at the end of the QSO — 2 pts.

9) Sending CW faster than you can receive — Novice exempt, General 5 pts., Advanced 3 pts., Extra 0 pts.

10) If you use QSB as an excuse for paragraph 9 — 1 pt.

11) Sending a QSL with both PSE and TNX checked — 2 pts. If you use local time instead of UTC — 3 pts.

12) Failing to keep an SASE on file with the good guys at the buro — 4 pts.

13) Using 73's instead of 73 — 3 pts.  
Award will be available on 4' x 8' x 3/4" sheetrock, unsuitably framed (U-pickup).

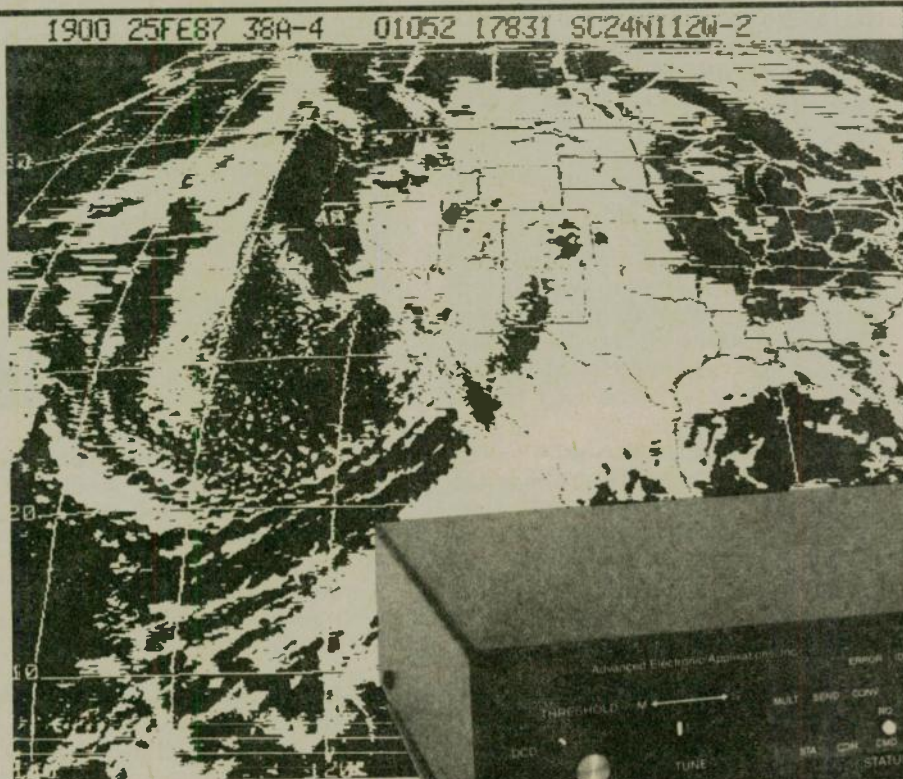
\*NOTE: The Cactus Lid is the sole approval authority for this award. Other outstanding practices/procedures which you think may qualify may be submitted for approval (in triplicate, of course). Good luck, and as all good Lids say: 73's CL. — *Bill Schuchman, W7YS* □

*I resolve never again when engaged in radio communication to use the plural pronoun "we" when what I really mean is "I". — Sterling Rock Falls, IL*



New PK-232 Breakthrough

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Your home computer (or even a simple terminal) can be used for radio data communication in six different modes. Any RS-232 compatible computer or terminal can be connected directly to the PK-232, which interfaces with your transceiver. The only program needed is a simple terminal program, like those used with telephone modems, allowing the computer to be used as a data terminal. All signal processing, protocol, and decoding software is in ROM in the PK-232.

The PK-232 also includes a no compromise VHF/HF/CW modem with an eight pole bandpass filter, four pole discriminator, and 5 pole post detection low pass filter. Experienced HF Packeteers are reporting the PK-232 to have the best Packet modem available.

Operation of the PK-232 is a breeze, with twenty-one front panel indicators for constant

status and mode indication. The 240 page manual includes a "quick start" section for easy connection and complete documentation including schematics. Two identical back panel radio ports mean either your VHF or HF radio can be selected with a front panel switch. Other back panel connections include external modem disconnect, FSK and Scope Outputs, CW keying jacks, and RS-232 terminal interface.

The RS-232 connector is also used for attaching any Epson graphics compatible parallel printer for printing Weather Fax. Weather maps and satellite photos, like the one in this ad, can be printed in your shack.

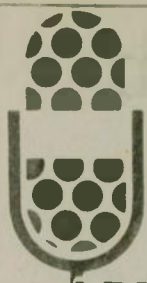
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**KE7IE**

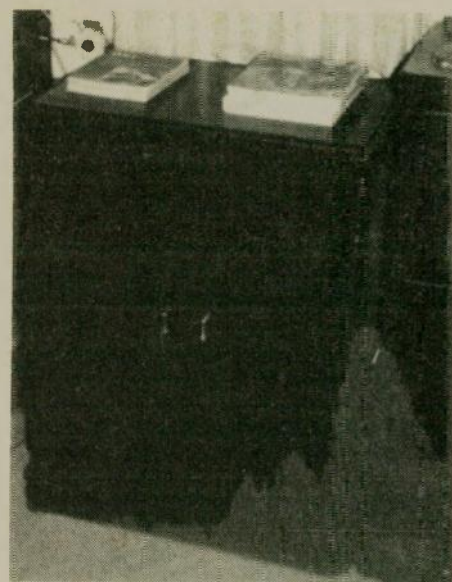
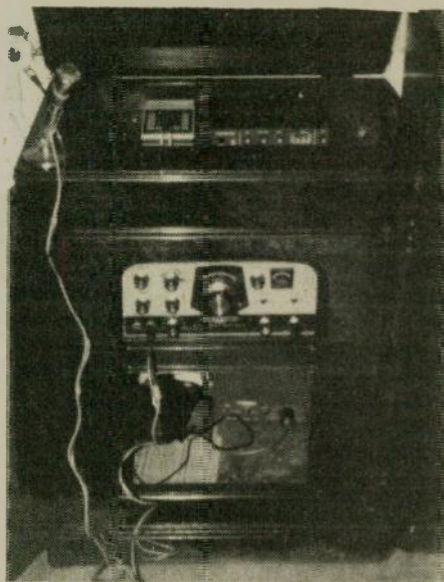
# STATION APPEARANCE

Frank Allard, KE7IE, of Twin Falls, Idaho is our August STATION APPEARANCE (SA) winner. Despite the loose wires, we thought this deserved the SA award because of the unique set-up.

My HF rig is housed in an antique cabinet, which protects the equipment from dust. With the cabinet opened up, the top level holds (left to right): the microphone, Heathkit keyer SA-5010, Heathkit active audio filter HD-1418 and a loudspeaker. The middle level contains a Heathkit SSB/CW transceiver HW-100. The lower level has my homebrew dummy load (converted from a carbon-type sewing machine foot control), headset and power supply for the HW-100.

"A Radio Shack SWR meter, MFJ-901 transmatch and Heathkit HD-1234 coax switch are visible to upper left of the cabinet. The antenna presently in use is a Butternut HF6V. My first antenna was a homebrew 15-meter helically wound dipole, still hanging from the ceiling out of sight above the photo. I put it into action during an Idaho January!

"When operating, I sit on a stool in front of the cabinet, taking notes on my lap. Subsequent to these photos, I homebrewed a "single-action" paddle



which I use with the keyer. Although my rig has SSB capability, I operate it predominantly on Morse code, preferring to "ragchew." To this end, the single-action paddle permits my stiff fingers to exercise better control over the keyer.

"If anyone is interested in plans for

the dummy load, helically wound dipole or single-action paddle, I would be glad to provide plans in exchange for an SASE, plus 10¢ for each plan requested (to cover photocopying charge). My address is: Rt. 2, Box 5250, Twin Falls, ID 83301." □

**If a foreign amateur visits your area, do a picture story for WORLDRADIO.**

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For convention information — call (408)243-8349

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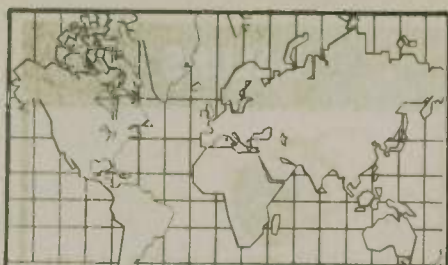
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# DX WORLD

John F.W. Minke III, N6JM

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## Activities Calendar

- 18-19 July LCRA Colombia DX Contest
- 18-19 July MARTS SEANet Contest (CW)
- 25-26 July RCV Venezuelan Contest (CW)
- 25-26 July Pacific Northwest DX Convention
- 01-02 August FRR Romanian DX Contest
- 08-09 August DARC European DX Contest (CW)
- 15-16 August WIA Remembrance Day
- 15-16 August MARTS SEANet Contest (SSB)
- 22-23 August JARL All Asia DX Contest (CW)

## W-100-N

The following DXers have been awarded Worldradio's Worked 100

Nations certificates for successfully working and confirming contacts with at least 100 different nations:

- 314. WD4HRO Dennis L. Cornell
- 315. WB5TED Richard E. Pruitt
- 316. PA3BWQ Burghart A.W. Aries (All CW)
- 317. OZ1KFQ Hans Christian Jensen
- 318. N6ZU Cliff Kurtz (All 20M SSB)

The W-100-N rules state that there are no endorsements to this award. However, I will endorse such certificates for all CW, all RTTY and all single band. The only endorsement for SSB will be if it were all one band, such as that for Cliff, N6ZU.

## Easter Island (CE0)

If you need a YL contact from Easter Island, look for Pat, CE0GHO, She has been worked on various spots on the 20M band recently. Try 14.215-14.225 MHz after 0100 UTC.

Two other stations reported active include Jaime, CE0ZIG, and Henri, CE0FFD. Both of these stations have been reported on CW. Look for both of them 14.001-14.023 MHz from 2345 UTC. When the band is open, also check 21.001-21.030 MHz.

## New Caledonia (FK8)

Several stations have been reported from New Caledonia — at least 11 of

them. Three of them have been reported numerous times and have been on more than one band.

On 15M, FK8FN appears to be the most busy. Look for this one between 21.018 and 21.035 MHz after 0100 UTC. This station has also been found on 40M working the West Coast around 1300 UTC on 7.009 MHz.

Also on 15M CW, FK8FF has been found near 21.015 MHz at 0200 UTC. On 20M this station shows on SSB near 14.216 MHz around 0400 UTC working the Midwest. Then it was back to CW again on 40M where he was found on 7.016 MHz at 1000 UTC.

The third active station was FK8DD, who pleased a few East Coast types in the New York City area by showing on 14.016 MHz around 2045 UTC. This station is mostly active on 40M CW near 7.006 MHz after 1000 UTC. He has also been on SSB around 0300 UTC on 21.289 MHz.

As for the other eight stations reported from New Caledonia, their activity is nowhere near as plentiful as the above three. However, we will list them with frequencies and times in MHz and UTC, respectively:

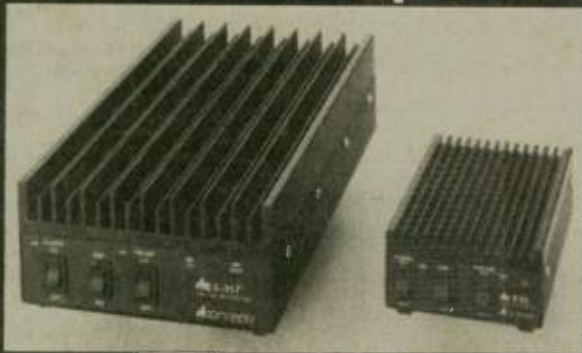
FK8EA	7.003	1115
FK8EJ	7.006	1045
FK8FG	14.017	0745
FK8FI	14.155	0600
FK8FL	14.036	0345
FK8FS	14.002	0245
FK0AT	14.004	0400
FK0AW	7.009	0730

## Minami Torishima (JD1)

Rick Henry, 7J1ACH, was scheduled to leave Minami Torishima the end of June for a possible reassignment to the Caribbean area. Charlie Carpenter, KA2CC, reports that he will be back on the island for a week in August. He will be on 20 through 10M and will be looking for contacts with Novices on SSB. Look for Charlie, August 14-21.

Charlie says that the Coast Guard Station on Minami Torishima will be closing down in the very near future. When it does close, there will be no more 7J or KA operation from the island. The Japanese will have full control of the island and it will be closed to all visitors. Japanese nationals assigned to the island for duty will be the only operators heard, provided they are radio amateurs, of course.

When sending your QSL requests to Charlie, you may QSL via the ARRL DX QSL bureau as Charlie's KA2CC call is a DX call. If you QSL direct, provide an SASE with standard postage (not airmail, as it goes via airmail as all other long-haul stateside



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" 2-117	10W	IN = 170W OUT	" 3-112	10W	IN = 120W OUT
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mailings). Charlie's direct route is USAISC-J Box 1133, APO San Francisco, CA 96343.

### Faroes (OY)

This one has been well represented recently with much of the activity divided between OY8I and OY9JD. The first one, OY8I, appears to prefer the net route from what we gather from the reports. Look for this SSB type on 14.160 MHz around 2300 UTC or 14.227 MHz after 1630 UTC.

The other active station, OY9JD, likes to move about working both CW and SSB. Look for this one on 7.001 MHz around 0430 UTC, or up on SSB near 14.158 MHz after 0030 UTC.

Other stations reported from this island nation include the following (frequencies and times in MHz and UTC as usual):

OY1CT	14.011	2200
OY1R	14.030	2145
OY2J	14.009	2045
OY7ML	14.025	0115
OY9J	14.034	2100

### Ivory Coast (TU)

A few stations have been reported from this one recently. A surprise on the bands was Sig, TU4CN, who handed out contacts to the deserving earlier in May. Sig was worked on 20 and 15M, both CW and SSB. From what we understand, he has left and is on to another country.

Long-time Worldradio subscribers will remember Sig — or Charles, whatever you want to call him — was our DX Editor. He was active with the 1978 Clipperton DXpedition when I took over as DX Editor. If you worked TU4CN, send your QSL to his home call, WA9INK.

Also active from the Ivory Coast we have TU2AX, who has been found often on 14.160 MHz between 2030 and 0030 UTC. Also near this frequency we have TU2QZ, who was worked by the western Canadians around 2130 UTC and TU4CG who was found around 2200 UTC.



Say hello to Hamed, CN2AH, from Tanger, often found on the ET Net on 14.160 MHz after 2200 UTC. Former calls assigned to Hamed included CN8HA and CN2AI. The younger man to his rear is his son, Omar, who signs CN8LE. Omar also has a stateside call of KA2RFX. (Photo courtesy of CN2AH)

Also active on 20M SSB was TU2QQ, who was worked often between 14.191 and 14.243 MHz between 1700 and 2200 UTC.

TU4CG also gets down on CW as he has been worked on 14.016 MHz around 1730 UTC and 21.001 MHz at 1400.

### U.K. sovereign bases — Cyprus (ZC4)

As this one recently became a new DXCC country, perhaps you can pick up one of the four stations that have been reported this past spring. In the region near 14.183 MHz, ZC4AK has been active between 1700 and 1930 UTC.

Also on 20M SSB, ZC4AP has been found after 2000 UTC. He has been reported both on 14.160 and 14.193 MHz. He has also been reported on CW on the 15M band as he has been worked on 21.000 MHz around 1400 UTC.

Two other stations have been reported, both of them on CW near the lower reaches of 20M. Try ZC4DO on 14.022 MHz around 2030 UTC and ZC4EE on 14.009 MHz after 2300 UTC.

## GIVE YOUR EARS A BREAK!

(And the XYL's too!)

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### FEATURES

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### North Cook Islands (ZK1)

Ronald "Bing" Crosby, VK2BCH, signed ZK1XV from Penrhyn Island in the North Cook Islands during the month of June for about three weeks. If you worked Bing from Penrhyn and desire a QSL card to confirm the contact, send your card direct to P.O. Box 344, Forster, New South Wales 2428, AUSTRALIA. Be sure to provide funds for return postage. No QSL cards via the bureau will be accepted.

### Equatorial Guinea (3C1)

This one has been represented by Manuel, 3C1MB, who reports into the ET Net often on 14.160 MHz. Manuel works elsewhere, though, including CW. If you need this one on CW, look for 3C1MB near 14.008 MHz after 2300 UTC. He has also been worked further up in the band as he has been worked on the East Coast near 14.049 MHz.

## Propagation

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SEPTEMBER 1987

UTC	AFRI	ASIA	OCEA	EURO	SO AM
0100	13.2	20.5	21.9	9.2	20.5
0200	9.8	20.1	22.0	8.5	17.0
0300	9.3	17.8	21.8	8.0	13.6
0400	11.8	16.3	21.1	8.2	12.0
0500	11.0	14.5	17.5	9.8	12.2
0600	10.3	13.8	14.6	10.3	12.7
0700	9.6	12.8	13.5	10.0	12.4
0800	9.0	12.3	13.2	9.7	10.5
0900	8.5	12.0	13.0	9.9	12.5
1000	8.3	11.6	13.2	9.1	12.6
1100	9.0	11.0	13.1	9.2	11.4
1200	10.6	10.2	12.2	10.1	11.9
1300	12.7	10.0	11.1	11.9	14.6
1400	14.7	11.3	12.1	13.9	17.6
1500	16.1	12.6	13.1	15.6	19.1
1600	16.9	12.1	12.1	16.3	19.5
1700	17.1	11.9	10.1	16.1	20.4
1800	17.2	12.2	9.4	15.9	22.2
1900	17.4	13.4	11.4	15.4	24.2
2000	17.5	15.5	15.0	14.3	25.8
2100	17.6	17.9	18.0	12.7	26.4
2200	18.0	19.6	19.6	11.1	25.2
2300	17.1	20.2	20.6	10.1	23.0
2400	15.9	20.5	21.4	9.6	21.0

QRZ DX reports that Manuel is a radio and TV engineer on Bioco Island and should be there for another year or so.

During July for about 10 days, there is a planned DXpedition to Equatorial Guinea by a team consisting of Jacky Calvo, F6GXB, who will be operating as 3C1CW; Jean-Louis Domange, TR8JLD, operating as 3C2A; and Roland Cailleau, TR8CR, operating as 3C3CR. This is to be mostly a CW affair with some SSB. The operating schedule is reported to commence around July 10.

### Algeria (7X)

Very active from Algiers is Sadek Laskri, 7X2LS. Sadek has often been found on the ET Net on 14.160 MHz. Try looking for him after 1900 UTC. The procedure for this operation — whether or not you care for lists — is to wait for the head list-taker to take a list and get on it. If you hear a call, you need to wait for the leader to finish and get on his next list.

From the reports we see that Sadek has made contacts elsewhere, such as 14.192 MHz at 0100 UTC, 14.205 MHz at 0300 UTC, 14.220 MHz at 0315 UTC and 14.236 MHz at 1900 UTC. The latter two are net frequencies again.

Also keeping Sadek company at times is 7X2DS, and from the indications this is a net person too.

There have been several other reports of stations active from Algeria, such as 7X2FL who has been found at various places on the 20M band, and much of it net operation. For those who care to work on their own, try 14.177 MHz around 0015 UTC. This station has been as high as 14.300 MHz. Try this spot around 0130 UTC.

The reports also include about five

other stations which we have listed below (frequencies in MHz and times UTC):

7X2FK	14.197	0130
7X2HM	14.205	0130
7X2LX	14.227	2330
7X2VMK	14.244	2030
7X5AB	14.206	2130

The call 7X2LX may be an error and could be Sadek, 7X2LS.

### Kuwait (9K2)

Much activity has been reported from this one, and believe it or not, this DX editor still needs this one. The most active from Kuwait recently is 9K2KW, according to the reports. He has been found between 14.155 and 14.241 MHz beginning as early as 1900 UTC.

Also active is 9K2DZ who gets on the bands between 0100 and 0400 UTC in the 14.200 MHz area. Other active stations include 9K2SH who has been reported between 14.165 and 14.223 MHz after 0100 UTC, and 9K2YA found between 14.207 and 14.237 MHz after 0030 UTC.

Other stations include the following in the standard format:

9K2AN	14.202	0130
9K2DS	14.176	0200
9K2DT	14.216	0000
9K2DX	14.203	0045
9K2FR	14.218	0015
9K2MJ	14.218	0015

Notice that not one of these 9K2 stations has been reported on CW. Too bad!

### Sierra Leone (9L)

Not much to report on this one as only a couple of reports have been made. On 20M CW, 9L1GG is reported to be active between 14.008 and 14.014 MHz after 2300 UTC. This station is also reported to be active on 40M.



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Another station, 9L1IS, was up on 14.160 MHz being worked around 2245 UTC. This report was from Saskatchewan. As this is the frequency for the ET Net, most likely this station was worked by others.

During the month of May, all amateurs in Sierra Leone were authorized to add the "2" to their call (i.e., 9L1IS became 29L1IS), to celebrate their country's 29 years of independence. We heard one of those calls on and were skeptical of the whole thing as the 29L prefix did not belong to that country. Chod Harris in his *The DX Bulletin* also commented on the affair and said that those 29L calls were not legitimate. The "2" call sign block is assigned to the United Kingdom.

### New IARU member

The national Amateur Radio Society of Liechtenstein — Amateurfunk Verein Liechtenstein (AFVL) — was recently elected to the membership of the International Amateur Radio Union. As of May 20, this brings the total membership of the IARU to 125 societies. The IARU, with its international headquarters at ARRL headquarters, has been going strong since 1925 representing the interests of Amateur Radio worldwide.

As most of you know, the WAC (Worked All Continents) award is issued by the IARU, not the ARRL, even though you may have sent your application to Newington.

### Hungarian Districts Award

There are several awards sponsored by the Hungarian Radioamateur

Society — or Magyar Radioamator Szovetseg (MRASZ). Unfortunately, most of them appear to be a bit unreasonable in the requirements. We have selected the Worked Hungarian Districts (WHD) award, which should be obtainable by those DXers who concentrate on working Hungarian stations.

To qualify for this award, you must have worked and confirmed at least five of the Hungarian call areas (HA1, HG1, 2, 3, etc.). A total of 10 contacts are needed to qualify. The statement "two cards need from each call areas on two bands" is included with the requirements. We assume that they mean five contacts on one band and five on the other.

If you qualify for this award, prepare a list of contacts giving the station's call, name and location, date, time, band, mode and report. Do not send your QSL cards, but have your list certified by at least two licensed amateurs that you do have the cards in your possession. Send your application, with a fee of 5 IRC's, to Janos Retkes, HA8UB, P.O. Box 22, H-6061 Tiszakecske, HUNGARY.

### DX net listing

Dieter Konrad, OE2DYL, informs us that his 1987 edition of *DX-Nets Around the World* is now ready. The volume contains full information concerning over 100 active DX nets.

In addition, Dieter also publishes another item, *DX-Beam Headings*, a list that shows the bearing and distance for more than 45 locations from around the world.

The cost of the net listing is \$3 (U.S.) or 4 IRC's. The list will be sent via airmail. If you desire the list of beam headings, it will cost you \$10 (U.S.) or 12 IRC's. This item will be sent surface mail. If you wish it sent via airmail, add \$3 (U.S.) or 4 IRC's. Send your requests to Dieter Konrad, OE2DYL, Bessarabierstrasse 39, (please turn to page 34)

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2. USA	2,614	419,258	421,872	128,284
3. West Germany	1,626	54,910	56,897	41,113
4. United Kingdom	1,000	54,000	55,000	27,500
5. USSR	5,200	43,000	47,200	11,651

Notice that our neighbors to the north are not in the top 10. Canada placed 11th with 23,600 total stations. Licensed membership in the CRRL is only 5,090.

Now some of you are going to argue with us on who is number 1, based on the number of listings for Japan in the

Amateur Radio Union (IARU) prepared a list gathered from the information supplied to them from the various member societies. We are only listing the top 10 here to save space.

Country	Club Stations	Individual Stations	Total Stations	Licensed Members
6. Indonesia	-	40,000	40,000	40,000
7. Spain	-	-	36,137	12,660
8. Argentina	-	-	35,000	2,162
9. Italy	3	28,000	28,003	10,500
10. Brazil	67	24,000	24,126	24,000

The last column is the membership of that national society (i.e., the ARRL for the USA, etc.).

Country	Club Stations	Individual Stations	Total Stations	Licensed Members
6. Indonesia	-	40,000	40,000	40,000
7. Spain	-	-	36,137	12,660
8. Argentina	-	-	35,000	2,162
9. Italy	3	28,000	28,003	10,500
10. Brazil	67	24,000	24,126	24,000

Callbook. The reason all the JA stations are not listed is that the JARL information is in Japanese, and what

is in the Callbook comes from various other sources. Besides, we would need a third Callbook just for Japan.

## DX World

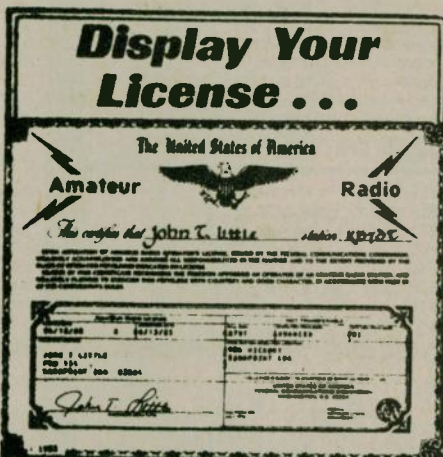
(continued from page 31)

A-5020 Salzburg, AUSTRIA.

### Antique QSL Department

These oldies come from the collection of Al Phillips, W7HS. The first one, from ZS6DY (See next page), was worked by Al almost 50 years ago when he was signing W6NPU. No, Al wasn't in California then. At that time, Utah was included in the 6th U.S. call area. Al worked this station

on October 10, 1938 on 10M phone — that was AM and not SSB. The operator was indicated as C.E. Lowe, ex-ZU6U. The operator noted on his QSL card that he had worked 79 countries and 45 states since September 14, 1937. We wonder which three he didn't work.



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Here is another 10M AM contact, this one with the Belgian Congo. The operator of OQ5AB was listed as A.F.M. Schrovens of Elisabethville for this November 22, 1939 contact. At that time there was much unrest in the world and Amateur Radio was soon to be quiet for a few years while the world worked out its differences.

In 1954 the operator was listed in the Callbook as Chef de service, U.M.H.K., at the same address. As to the whereabouts of the former OQ5AB, we do not know. The Belgian Congo no longer exists with the territory presently that of Zaire.

Joe Slattery, W9DRL, writes to us regarding our comments in the May issue on the whereabouts of Rundy, W3ZA. Rundy is now a Silent Key, having died on March 13, 1986, and is

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4 BAND SLOPER - 160, 80, 40, 30, or 20M	60 ft. long	\$ 48 ppd
3 " " " " " " " " " " " "	60 ft. " "	\$ 43 " "
2 " " " " " " " " " " " "	40 ft. " "	\$ 35 " "
3 " " NO-TRAP DIPOLE - 160, 80, 40M	113 ft. long	\$ 71 " "
2 " " " " " " " " " " " "	85 ft. " "	\$ 55 " "
9 BAND SPACE-SAVER DIPOLE - 160 thru 10M*	45 ft. long	\$ 85 ppd

\* Requires wide-range tuner (80, 40, 20, 15M without tuner)

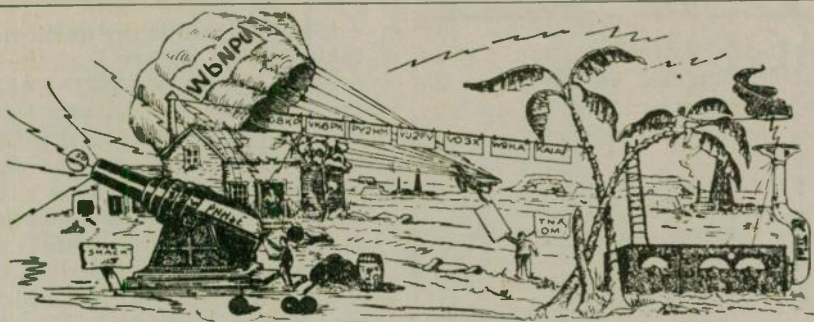
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W  
A  
C

W  
B  
C  
N



CONFIRMING OUR  
QSO 10-10-38  
AT 7:52 PM  
S.A.S.T. ON 21 M.C.  
YOUR SIGNALS  
Q.S.A. 4-3-2-5  
S.A.R.R.L. 4-3-2-5

**ZS6DY**  
EX ZUGU

THANKS FOR THE  
QSO OM. AND  
HOPE TO CONTACT  
YOU AGAIN.  
73 OM AND  
PLEASE Q.S.L.

DX 11 COUNTRIES W.A.S. 40 STATES.  
SINCE 14-9-31  
C.E.LCWE 8. EIGHTH AVE., PARKTOWN NORTH. JOHANNESBURG. S.A.

buried in Arlington National Cemetery. He was an active county hunter up to his death, signing K4ZA. Rundy received USA-CA #311 for working all U.S. counties.

Mike at 212 North Columbus Ave., Fremont, OH 43420.

**QSL routes**

A4XJW	-N4WF	DX1MM	-DU1KT
A61AB	-W3HUP	EF7CW	-EA7BXL
A71BK	-K14GV	EH7EXP	-EA7AIN
BV6TA	-W3HNK	EL5G	-K3RB
	(See Note 1)	EM1AA	-UZ1AWV
BV0AE	-JA1UT		(See Note 3)
C30BAX	-DL4BAH	EM2C	-UC1AWB
	(See Note 2)		(See Note 3)
C30BBB	-DL4BAH	EM7BRN	-UB4RWW
	(See Note 2)		(See Note 3)
C30CSA	-DL4BAH	EM0COG	-UC1OWB
	(See Note 2)		(See Note 3)
C30DCA	-DL4BAH	EO1AQW	-UZ1QWA
	(See Note 2)		(See Note 3)
CE0DFL	-CE3YY	EO3ATD	-UZ3TWT
CN8CC	-F6FNU		(See Note 3)
CP8XA	-DL3NAZ	EO0AAK	-UZ0AWB
CQ0BI	-CT1AHU		(See Note 3)
CR6UA	-W3HNK	EU1R	-UR1RWW
CR7DKG	-CT1DKG		(See Note 3)
CR0BI	-CT1AHU	EU6D	-UD7DWA
CS2BOH	-CT1BOH		(See Note 3)
CS0BI	-CT1AHU	EU7L	-UL7GM
CT0BI	-CT1AHU		(See Note 3)
DJ6QT/9L1	-DJ6QT	FF3TV	-F6BEE

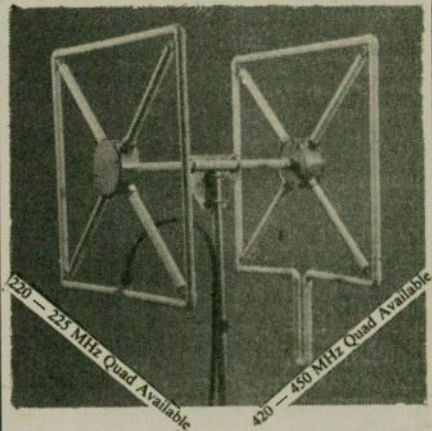
FK0AW	-F6BFH	TU4CN	-WA9LNK
FO0BRM	-N6DJM	TV6BIL	-F6AUS
FV6PAX	-F8BO	TV7MED	-FD1DBT
FV7NDX	-F6AJA	TV7GLC	-F6DLM
GETTC/VS6	-G3TTC	TV7MTN	-F1HWB
G8ZY/VP2M	-R5GB Bureau	TZ6VV	-N0BLB
HB0/DA1WA	-DJ0LC	UC2AA/U9J	-UC2AHO
HG7B	-HA0DU		(See Note 3)
HISJEI	-HI3JR	UD6KU	-UD6DJ
HISDLA	-HI8TL		(See Note 3)
HI0A	-HI8LC	V31A	-K5RX
HI80RCD	-HI8LC	V31ET	-K5RX
HL9MM	-KA6V	V31JS	-K5RX
	(See Note 4)	VD1ASJ	-VE1ASJ
HL9TM	-K3LTZ	VD1WF	-VE1WF
HZ1FM	-DJ9ZV	VE1QST	-W7LKG
JX9CAA	-LA5NM		(See Note 6)
JY5ZM	-WA3HUP	V141TU	-VK4SS
K1BAZ/DV1	-K1BAZ	VP2VCW	-N6CW
K21BW/FJ	-K21BW	VU2LAM	-UY5XE
KH2D	-KA3T		(See Note 5)
KK7K/DU3	-N2AU	W5ZPA/C6A	-W6ZPA
LX2KQ	-NB1U	W6JKV/VV0	-W6JKV
LY7L	-UA4LCQ	W9ZNY/BV	-W9ZNY
	(See Note 3)	WB4RFZ	-W4PKA
LZ7A	-LZ2CC	WY5L/KH3	-N5DAS
LZ8A	-LZ2CC	XE2VKR	-NN7A
N0APT/HH2	-N0APT	YJ0ARW	-ZL1AMO
OD5LX	-SM0DJZ	YK7A	-YV7QR
OD5PL	-HB9CRV	YZ9IX	-YU2LIX
OH0AM	-OH2BH	ZD8RP	-G31FB
ON5NT/5N0	-ON7FK	ZK1XV	-VK2BCH
OX3GH	-WA2TTI		(See Note 7)
OY8I	-WB0TEC	ZK2EKY	-VK2EKY
P29DI	-W4KXF	ZY4BA	-PY4BA
P29EW	-WA6EW1	ZY0TC	-PY1DFF
P40T	-KB2HZ	ZY0TJ	-PY2BTR
R3SP	-UZ3AWB	ZY0TM	-PY1DFF
	(See Note 3)	ZY0TO	-PY1DFF
SP0ITU	-SP6PAZ	ZZ5EG	-PY5EG
T4YL	-ZS6BD	ZZ8ADV	-PW8DP
T50DX	-I2JSB		(See Note 8)
	(See Note 5)	ZD8VMC	-PW8DP
			(See Note 8)
TL8JM	-N4NW		
TL8TG	-N4NW	3A7JO	-3A2LF
TP2CE	-F6PQK	3C1MB	-EA7KF
TR1G	-AK1E	4C2C	-XE2PQ
TR8JLD	-AK1E	4N7ZZ	-YU7FIJ
TR8WCY	-AK1E	4U2ITU	-DL1HBT
TU4CG	-F2BS		(See Note 9)

**QSL information**

We received a note from Mike McGuire, KA8NAO, who would like to become a QSL Manager for a DX station, but doesn't know how to go about it. Well, Mike, the first thing you do is volunteer your services. You will also have to get QSL cards printed up for the station you are handling cards for. The cost of the cards will have to be worked out between you and the DX station you will handle cards for.

If there is a DX station out there looking for a QSL manager, contact

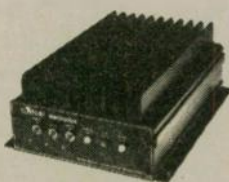
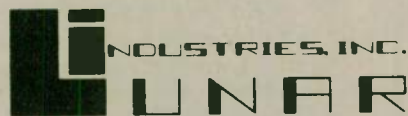
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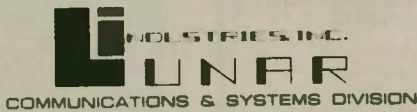
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4X6IL	-DL9BBS	8Q7CH	-SM6DQC
5A0A	-SP6BZ	8Q7DL	-DL9BAF
	(See Note 10)	9H1FBS	-N6APW
5H3ED	-I4FGG	9L1IS	-KB9N
5H3ZO	-K0LST	9M2HB	-N4FMA
5H3ZR	-OH6IQ	9M2KY	-JA8KJH
5K19C	-HK19C	9N7ITU	-JA8RUZ
5L2SI	-DJ6SI	9V1TJ	-K0GYK
5L7T	-YU1RL		
CE0GHO	-P.O. Box 1, Easter Island, CHILE		
EP2DL	-David Alipour, P.O. Box 17846/151, Tehran, IRAN		
SV9AKD	-P.O. Box 224, Iraklion, Crete, GREECE		
7P8DX	-Ed Douglas, P.O. Box 333, Maseru 100, LESOTHO		
7X2LS	-Laskri S., P.O. Box 84, Bouzareza 16340, Algiers, ALGERIA		

#### Notes

1. This applies for cards from North and South America only.
2. Callbook address is different. Try P.O. Box 1206, D-4512 Wallenhorst 1.
3. As for all Soviet managers, cards must go via P.O. Box 88, Moscow.
4. Use 1987 Callbook address.
5. Address given for this manager: CP 35, 20089 Ruzzano (MI). Not same as Callbook.
6. QSL route for this station is also VE1WF.
7. Use 1986 or 1987 Callbook address only. No cards accepted via the bureaus.
8. Address given for this manager: P.O. Box 84, Puerto Velho, RO 78900. The Callbook gives P.O. Box 81.
9. This applies for contacts made by DL1HBT and DL3HAH only.
10. When addressing your QSL requests to this manager, please omit any reference to Amateur Radio on the envelope.

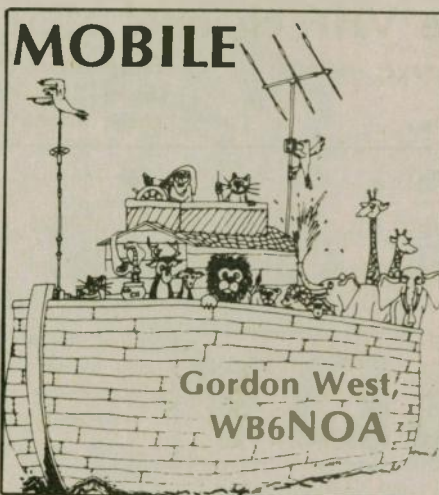
Contributors for this month's column include W2EJG, W6FGE, NN7A, W7HS, KA8NAO, W9LNQ, CN2AH, I4FGG, KA2CC, VK2BCH, Salt City DX Association (KB2G), Carolina DX Association (K2SD), Kansas City DX Club (AB0X), Southern California DX Club (NK6A), Western Washington DX Club (K7ZR), Northern Arizona DX Association (KD7XO), International Amateur Radio Union (K1ZZ), Long Skip (VE3IPR), Long Island DX Bulletin (W2IYX), QRZ DX (W5KNE), and The DX Bulletin (VP2ML). □

## World Bank HQ station

The World Bank Headquarters in Washington, D.C., is now the home of a new club and Amateur Radio station.

The formative meeting was held on April 14 with about 15 amateurs present. The ham station uses a 6-element Telrex triband antenna at 40' above the roof of the World Bank building.

The station is currently using the call sign of member KK4HD and is waiting a decision on whether they will wind up with an FCC-issued call sign or if they fall under United Nations jurisdiction and wind up with a 4U prefix. Among the first contacts made by KK4HD was with the Capitol Hill ARC station W3USS in the Russell Office Building and operated by David Siddall, K3ZJ. Tnx K3ZJ. —Westlink Report □




### VHF-FM marine frequencies on your ham set

Kenwood, Yaesu and ICOM have realized that many radio amateurs want more than just a 2-meter transceiver. Newer sets now offer expanded receiver capabilities to take in the 150 MHz band and the 160 MHz band. Some 2-meter sets — such as the ICOM 02AT — may be modified to pull in these frequencies, which are located above the 2-meter band.

Here's a sampling of what you can pick up on the 150-160 MHz bands:

- The marine VHF/FM channels
- VHF "high band" police channels
- 24-hour NOAA weather service broadcasts
- Taxis, tow trucks and fire departments on "high band"
- Land mobile telephone service, IMTS
- Business radio band
- Federal government band
- Ambulance and rescue squad
- Railroads



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If monitoring the net, please come in and join us. You will be cordially received.

For further information, write:

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- Motion picture service
- Forestry service

If you thought 2 meters was packed full of excitement on every repeater channel, wait until you tune in these frequencies outside of the Amateur Radio band limits!

The sets that are delivered from the factory with "high band" general coverage, already included, usually employ receivers with broad tuning capabilities. A good example of this is the new ICOM micro-hand-held as well as the Kenwood hand-helds with additional VHF receive capabilities.

However, sets that you might modify to include these new frequencies may not be very sensitive beyond the 2-meter band limits. This would include the ICOM 28 series, the ICOM 02AT series and older Kenwood hand-helds. These sets were designed specifically for 2-meter-only operation, and will require a slight retuning for expanded receive capabilities.

You can usually broaden the response of the receiver by adjusting the iron core slugs out in the coils of the RF section. This should only be attempted by hams with the right equipment and the experience in "stagger tuning" a receiver. If the adjustments are done improperly, you might pick up good signal strength on the marine VHF band at 156 MHz, but reduce sensitive reception throughout your entire 2-meter band! Usually only one-half turn is required to broaden response.

The following frequencies have been assigned by the International Telecommunications Union (ITU) to the marine VHF/FM service. All frequencies are simplex except for marine telephone channels. Phone channels operate half-duplex with a 4.6 MHz (+) split.

It is illegal to use amateur equipment on marine frequencies. Ham sets do not possess Part 80 type acceptance. It's also illegal to use marine frequencies on land for transmit. However, it is *not* illegal to modify your own Amateur Radio equipment for reception, and I think you'll enjoy what you may hear on these channels.

I have also received reports that the marine band frequencies are in heavy use out on the prairies by farmers "piloting" their machinery up and down the fields. Not legal, but it is certainly an efficient use of spectrum that is legally unassignable hundreds of miles away from any water.

Repeat — transmitting on marine VHF/FM channels with non-type-accepted equipment is not allowed, and your license is at stake. Use these frequencies for monitoring *ONLY*:







# 10-10 INTERNATIONAL News

Chuck Imsande, W6YLJ  
10-10 19636

## Meet Ken Miller, W2KF

The winner of the oldest half of our recent "Who's the Youngest and Who's the Oldest" contest for 10-10 members was Ken Miller, W2KF, 10-10 #37509. The following is a bit more about Ken and his background in Amateur Radio.

Ken got started in Amateur Radio when his mother objected to him getting a bicycle for his 13th birthday in 1928. Living in New York, she felt that riding a bike on the streets of New York was just too darn dangerous. Ken says that after much discussion with Mom and Pop, it was decided that instead of a bike, he would settle for a little radio that was displayed in a local radio store.

It was a Crosley "PuP", consisting of a metal box about 6"x 6"x 6", with a WD11 tube sticking out of the top, a grid leak sticking out of the back — all powered by a 1½V dry cell and a 22½V "B" battery. All of this, together with a pair of headphones, made up what was then called a "regenerative receiver."

Tuning the receiver was accomplished by turning a screw dial which varied the distance between two plates — called a condenser, and the regeneration was accomplished by moving two coils closer or further apart. Volume was controlled by increasing or decreasing the filament voltage on the WD11 tube. More voltage, more volume, less voltage,

less volume. The entire kit, including the antenna, cost \$10.95 — a considerable sum in those days.

The Crosley "PuP" worked very well, and "distance stations" such as Atlantic City were heard on a regular basis. The major problem facing Ken was that only he could listen in because of the earphones. He wanted his folks to listen to the radio as well, so he went to the library and began to read up on radio. He soon learned about amplifiers and other radio inventions.

In New York there was a place to buy radio parts on Courtland Street, and Ken made many trips on the subway to bid on junk radios, bidding a nickel or dime for a junker. Often he won the bid and carried the junk back home on the subway. He took the junkers apart and from the pieces built a better receiver and amplifier.

Still interested in radio, he learned about "short waves" and met an Amateur Radio operator. He proceeded to study the code, took the exam and came home with his first ticket — W2CWM.

From the old junk radios, plus a few new parts from Courtland Street, Ken built his first ham station: a two-tube regenerative detector with an AF amplifier on a breadboard. His first receiver used the UV199 tube which took much less filament current than the WD11. His transmitter was a series Hartley one-tube oscillator which used 75 volts for the plate supply. Batteries were an expensive item, so Ken picked up junked "B" batteries from trash cans in the neighborhood.

Operating CW mostly on 20 meters, Ken was able to contact most of the USA and even made a contact in the Canary Islands.

Ken says one of the most important things about his early days in Amateur Radio is that it led him into a career in radio and electronics. After graduating from high school, he entered the School of Technology at City College of New York. He received

his Masters Degree in Electrical Engineering in 1936.

After an impressive career beginning with Consolidated Edison in New York in 1936 and retiring from RCA in 1982 (with military service and civil service at Wright Patterson AFB in between), Ken says he never had one day of unemployment and owes it all to getting involved with Amateur Radio.

During his many years (almost 60) of Amateur Radio, Ken has collected almost all awards available, including one of the most difficult — 5-band DX-CC. Ken's major interest these days, in addition to operating his station, includes working as QSL manager for many DX stations. Operating his two computers, one hooked up permanently to the ham rig for RTTY and keyboard CW, keeps Ken busy at least 10 hours a week. As if that were not enough, he plays racquetball four times a week with a local senior citizens racquetball club.

## 10-10 members approve By-Laws Change

Recent action by the FCC, effective March 21, 1987, enhancing radio-telephone privileges of Novice and Technician Class amateur operators, has greatly increased their opportunity to become members of the 10-10 International Net, Inc. by making available to them the 28.3-28.5 MHz portion of the 10M band.

Certain portions of 10-10's By-Laws were in conflict with this change. At a general membership meeting on June 7, the 10-10 By-Laws were changed by a unanimous vote of the 10-10 members present to provide eligibility to all licensed amateurs authorized to operate on the 10M band to become full members of 10-10.

## Who says 10 is dead?

A note from Rod Adams, KF5UN, 10-10 #36388, says that 10 is *not* dead! In the recent 10-10 QSO Party, Rod made 137 QSO's and worked 31 states from his QTH in Plano, Texas.

He also contacted Argentina, New Zealand, Australia and Christmas Island. Rod's message; "Ten is not dead! Lack of QSO's is caused only by lack of stations on 10 meters."

## More nets move to 28.3-28.5 MHz

More and more of the 10-10 Chapter Nets are moving to the lower portion of 10 to allow Novices and Technicians to check in. if you are a Novice or Tech, look around your portion of the 10-meter band for a 10-10 net. Many nets meet between 7 p.m. and 8 p.m. local time. I hear there are several in the New York area that have moved (please turn to page 58)

## AUTO-KALL AK-4 THE ALL-IN-ONE DTMF DECODER

• SELECTIVE CALLING MODE: 2, 3 or 4 digit personal-call, group/all-call: call up all units and up to 15 groups, each AK-4 can respond to any or all group calls • Latched group call output • LED personal-call, group-call and power indicators • Variable timed output can be used with on-board relay to turn on a speaker

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AK-4W - Wired/Tested Boards - \$89.95 (Plus \$2.00 Shipping/Handling)

AK-4K - PCB Kits \$69.95 (Plus \$2.00 Shipping/Handling)

AK-4H - Hardware Kit \$29.95 (Plus \$2.00 Shipping/Handling)

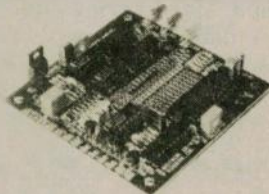
(Hardware: enclosure, speaker, spacers, switches, jacks, LED holders)

## NET-KALL NK-1 THE ECONOMY DTMF DECODER

Call all units and up to 15 individual groups. When triggered, output turns on for 5 to 2.5 seconds to drive buzzer, horn, relay, etc., or can stay on until manually reset.

NK-1W - Wired/Tested Boards - \$49.95 (Plus \$2.00 Shipping/Handling)

NK-1K - PCB Kits \$29.95 (Plus \$2.00 Shipping/Handling)



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140mm (W) x 50mm (H) x 164mm (D)  
5 1/2" (W) x 2" (H) x 6 1/2" (D)  
Smallest Dual Band Transceiver Available

Cross Band Full Duplex!

With ALINCO's advanced engineering and technology, the ALD-24T 2m/70cm Dual Band Mobile Transceiver is designed to be the ultimate in compact size with an impressive array of features, allowing maximum flexibility in installation and ease of operation.

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- 25 Watt High - 5 Watt Lower Power both bands.
- 21 Memory Channels
- Dual VFOs
- Large LCD
- CTCSS Encoder/Decoder: Standard
- 16-Key Autopatch Microphone with Up/Down Buttons
- Programmable Band Scan
- Memory Scan and Memory Lockout
- Ultra Compact & Light Weight
- Simple to Operate
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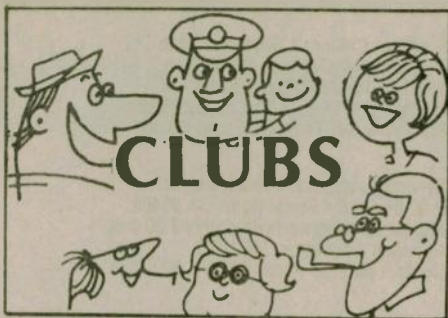
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 Amateur Comm. ETC. - San Antonio, TX  
 AES - Milwaukee, WI  
 AES - Wickliffe, OH  
 AES - Orlando, FL  
 AES - Clearwater, FL  
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 Hatty Radio - Hartford, CT  
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 HRO - Anaheim, CA  
 HRO - Atlanta, GA  
 HRO - Burlingame, CA  
 HRO - Oakland, CA  
 HRO - Phoenix, AZ  
 HRO - San Diego, CA  
 HRO - Van Nuys, CA  
 HSC - Sunnyvale, CA

International Radio Systems - Miami, FL  
 Jun's Electronics - Dulver City, CA  
 Kennedy Associates - San Antonio, TX  
 K.J.I. Electronics - Cedar Grove, NJ  
 Madison Electronics - Houston, TX  
 Maryland Radio Center - Laurel, MD  
 Memphis Amateur Electronics - Memphis, TN  
 Michigan Radio - MI Clemens, MI  
 Mission Consulting - Houston, TX  
 Missouri Radio Center - Kansas City, MO  
 N & G Electronics - Miami, FL  
 Omni Electronics - Laredo, TX  
 Quement Electronics - San Jose, CA  
 Renni Radio - Reno, NV  
 Rivendell Associates - Derry, NH  
 Southcoast Electronics - Southington, CT

Rosen's Electronics - Williamson, WV  
 Ross Distributing Co. - Preston, ID  
 TNT Radio Sales Inc. - 4124 Robbinedale, MN  
 Tel-Com Electronic Comm. - Ullatona, MA  
 Texas Comm. Center - Houston, TX  
 Texas Towers - Plano, TX  
 VHF Communications - Jamestown, NY  
**CANADA:**  
 Atlantic Ham Radio Ltd. - Downsview, Ontario  
 C.M. Peterson Co. Ltd. - N. London, Ontario  
 Com-West Radio Systems - Vancouver, B.C.  
 Hobby Tronique Inc. - Ville St. Laurent, Quebec  
 H&S Electronics Ltd. - Dartmouth, Nova Scotia  
 Teepro Sales Inc. - Burlington, Canada





The following item ran in Victor Valley ARC's newsletter, *The Spectrum*, and we thought it appropriate to include in our "Clubs" section.

## Prescription for a healthy ham club

Men and women develop interest in the subject of electronics and Amateur Radio for various reasons, and as a result, they expect different things from membership in a club.

Primarily, a radio club is designed to encompass the many diversified interests evolving around the art and operational procedures of Amateur Radio. Not everyone is interested in public service; a great many cannot afford to keep up with the latest equipment, synthesized gear, hand-helds and the expense of computers. The physical involvement of field trips or T-hunts is impossible for many.

A large percentage of operators love to spend hours at contesting, seeking awards and DXing. Others prefer the simplicity of 2 meters, using a minimum amount of equipment for personal pleasure only.

Experimentation with antenna systems and building from "scratch" is the ultimate in ham excitement for some. Others dedicate hours to message handling. The list is endless, but in order to bring all these people together under the banner of one club, each person must respect the others' interests, capabilities and devotion.

Generally speaking, Amateur Radio is a lonely hobby. It is this very aspect of being a ham that appeals to some people. Not everyone is physically or financially capable of keeping up with the times, so in planning club programs and activities, there should be consideration given to those who may not share quite the enthusiasm someone else might.

With election of officers, you should do some soul searching. Help your club grow by making sure the leadership represents all concepts of Amateur Radio. Being an officer is a lot less demanding than it seems, especially if the officer is good at delegating. So if you are asked to be a candidate, give the matter serious thought. You might make a big difference in the direction of the club. □

## ECARS — what is it?

ECARS (the East Coast Amateur Radio Service) is an organization operating on 7.255 MHz that is dedicated to helping Amateur Radio operators who call in on that frequency for assistance. Most amateurs that use the 40-meter phone band regularly are aware that they may check into this service for any reason for a simple "how's my signal?" to a full blown serious emergency.

The greatest use of ECARS is as a meeting place to establish contact with another ham friend. They check in, make their call, establish contact and move off to another frequency (or band if necessary) for the ensuing ragchew. Skip conditions being what they have been in the last couple of years, sometimes a third ham, who can copy both stations clearly, will also go along to serve as relay if needed.

If you need a phone patch into Philadelphia, Boston or maybe even Torn Britches, Tennessee, give it a try because 7.255 probably has more ears than any other frequency on the 40-

meter band. Need an address from the latest Callbook? Specs on a chip or transistor? Want to compare different microphones? 7.255 is the place to go.

ECARS publishes a quarterly newsletter called *The Monitor*, which is largely composed of material submitted by ECARS members. Within its pages are biographies, technical articles, editorials, tips for Service Control operators, letters to the editor and much more. You can receive this newsletter and also become a member of ECARS by sending \$3 per year to the ECARS secretary/treasurer. This is just enough to cover the cost of printing and mailing your copy. However, you are welcome to participate in the Service on 7.255 without membership.

We have attempted to acquaint you with what ECARS is all about. Why not get acquainted — drop in on 7.255 MHz anytime from say 8 a.m. to about 3 p.m. and join the group. Check in with the station operating as Service Control and offer your services: Do you have a phone patch or 2-meter FM with access to repeaters? Can you offer technical advice on packet or OSCAR? Or do you just want to exchange some friendly chit-chat? ECARS is a friendly, upbeat Amateur Radio Service. Join us. □

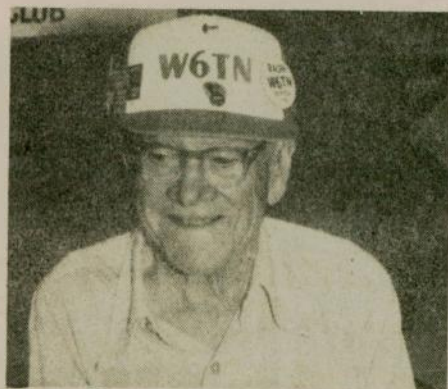
## Meet Ralph, W6TN

### Mildred Strongman, WB6HXK

Ralph Turner, W6TN, is a member of the Kern Valley ARC. He is 80 years old and still very active in club and on the radio. He is an examiner for our Novice classes and calls the Prune Juice Net at 9 a.m. on 14.500 each day.

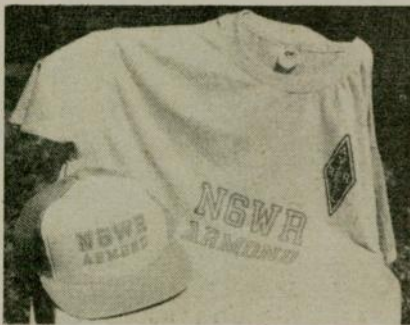
Ralph has taught many in our valley their ham code. Most of his graduates have followed the pattern and taught others. He got his first license in 1922 as 9BHE in Illinois. His parents were both telegraph operators and used it as a means to keep secrets, so he had to learn in self-defense.

He moved to California in 1945 and now resides at Lake Isabella. He runs a Kenwood TS-430 into an old SB-200 Heathkit linear 1200 watt final. The house looks like an antenna farm. We in our valley are very proud of him. □



Ralph Turner, W6TN

Only One Person in  
the World has your call . . .  
**YOU!**



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

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

Matching cap printed with your call and name has foam front and mesh back, is adjustable for size, and costs \$5.50.

High quality golf shirts available, printed one side \$14, both sides \$15.

Make checks or M.O. payable to:

**Anne Wright, N6BOP**  
2272 Kellogg Park Drive  
Pomona, CA 91768

California residents add 6% sales tax.



# VISIT YOUR LOCAL RADIO CLUB.

## ALABAMA

**Birmingham Amateur Radio Club, Inc. (BARC)**  
Meets at the American Red Cross Building  
2225 3rd Ave. North in downtown Birmingham, Alabama  
1st and 3rd Thursdays/monthly at 7:30 p.m.  
For info call Chuck Conkell, N4MLN, (205) 833-9555

## ALASKA

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

## ARIZONA

**Old Pueblo Radio Club**  
Meets: 2nd Wednesday/monthly — 7:30 p.m.  
Location: Franklin Building  
University of Arizona  
N.E. corner of 6th St. & Park.

**Tucson Repeater Association**  
P.O. Box 40371, Tucson, AZ 85717-0371  
2nd Sat./monthly — 7:30 p.m., Pima Co.  
Communications Bldg., 2145 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**  
PO. Box 1094, Pine Grove, CA 95665, Pioneer Elementary  
School, Pioneer, CA • 1st Thurs/monthly 7:30 p.m.  
WA6WIY Rptr. — 146.835, 146.235.  
Net Tues. 7:30 p.m.

**Anza Valley Radio Club**  
Anza Valley COOP  
58460 Highway #371  
Anza, CA 92306  
Meets 1:00 PM last Sunday/monthly

**Associated Radio Amateurs of Long Beach, Inc. W6RO**  
P.O. Box 7493, Long Beach, CA 90807  
Meets: 1st Friday/monthly — 7:30 p.m.  
Signal Hill Recreation Hall  
1708 E. Hill St., Signal Hill, CA

**Citrus Belt Amateur Radio Club**  
777 East Rialto Ave.  
San Bernardino, Calif.  
P.O. Box 3788, Zip-92413  
Meets: first Friday/monthly — 7 p.m.

**Coachella Valley Amateur Radio Club (CVARC)**  
Columbia Savings and Loan Association  
Highway 111 and Highway 74  
Palm Desert, CA 92260  
1st Monday/monthly 7:30 p.m.

**Contra Costa Communications Club WD6EZC/R**  
P.O. Box 661, San Pablo, CA 94806  
Meets 2nd Sunday at 9:00 a.m.  
Hickory Post Restaurant/Lucky Lanes  
For info call Carl KA6OLK (415) 237-2621

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

**Gabilan Amateur Radio Club**  
South Valley J.H.S.  
385 IOOF Ave. • Gilroy, CA 95020  
Meets: 2nd Thursday/monthly — 7:30 p.m.  
Talk-in 145.47-

**Golden Empire Amateur Radio Society (VEC)**  
P.O. Box 508 • Chico, CA 95927  
Club call W6RHC — Repeater 146.25/85  
Meets at Esplanade House, 1528 Esplanade  
Room 101, 3rd Friday/monthly — 8:00 p.m.

**Kern River Valley Amateur Radio Club**  
P.O. Box 1902 • 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

**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

**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.

**Radio Amateur Mobile Society**  
Meets: 2nd Tuesday/monthly — 7:30 p.m.  
Carmichael Elks Bldg.  
Cypress and Hackberry, Carmichael, CA  
Net Saturday a.m. 224.84 8:30/146.79 9:00

**River City A.R.C.S.**  
Meets: 1st Tuesday/monthly — 7 p.m.  
SMUD Building, Room A  
Elkhorn and Don Julio, Sacramento, CA  
For info: (916) 483-3126

**Sacramento Amateur Radio Club, Inc.**  
Contact: Bob Lyman, K16FT, (916) 726-2694  
Meets Sacramento Blood Bank  
32nd St. & Stockton Blvd., Sacramento, CA  
2nd Wednesday/monthly-7 p.m.

**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 County Amateur Radio Assoc. W6UW**  
P.O. Box 6 • San Jose, CA 95103. W6UU 146.385 +  
Meets: Santa Clara County Service Center  
1555 Berger Dr., Building 2 Auditorium  
2nd Monday/monthly — 7:30 p.m.

**Santa Clara Valley Repeater 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.

**Sierra Foothills Amateur Radio Club**  
P.O. Box 3262, Auburn, CA 95604.  
Office of Education Bldg., 360 Nevada St., Auburn, CA.  
Meets: 2nd Friday/monthly at 7:30 p.m. Net Thurs.  
7:30 p.m. Rptr. 145.43-Tues. 7:30 p.m. 28.543 MHz

**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. on Grape St. near Parkview Ave. in  
Redding, CA. Net 146.64 Wed. at 8 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 Thur., 8:00 p.m., 52.28/88  
FM Smpix Net Thur., 9:00 p.m., 50.300

**Sonoma County Radio Amateurs, Inc.**  
P.O. Box 116 • Santa Rosa, CA 95402  
Meets: 1st Wednesday/monthly 7:30 p.m.  
Repeater frequency: 146.13/73  
Contact person: Hank, W6DTV, 823-7885

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

**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

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

**Tehama County Amateur Radio Club**  
13620 Trinity Ave. • Red Bluff, CA 96080  
Meets: 1st Friday — 7:00 p.m.  
Lincoln Street School  
Net Wednesday 8:00 p.m. 147.705 repeater

**Tri-County Amateur Radio Association**  
PO. Box 142, Pomona, CA 91769  
Meets: 2nd Monday/monthly — 7:30 p.m.  
Pomona First Federal S&L — Basement  
399 N. Garey — Pomona

**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 Repeater 146.34/146.94

**West Coast Amateur Radio Club**  
Fun Meetings—No Business  
Meets 3rd Thursday/monthly—7:15 p.m.  
Fountain Valley Elem. School • Fountain Valley, CA  
Net every Thursday 7 p.m. • Repeater 145.440-

**Yucaipa Valley Amateur Radio Club (YVARC)**  
Gibraltar Saving's Community Room  
34880 Yucaipa Blvd., Yucaipa, CA 92399  
Pres: Fred Schmidt KG6QN (714) 794-1244  
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.

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

**Sarasota Amateur Radio Ass'n, Inc.**  
Meets: 3rd Tues./monthly — 8 p.m. on the 6th floor (board  
room) 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, 7 p.m.  
Herbert Hoover J.H.S.  
Indianapolis, FL

## HAWAII

**Big Island Amateur Radio Club**  
P.O. Box 1938 • Hilo, HI 96721-1938  
Meets: 2nd Tuesday/monthly - 7:30 p.m.  
Helco Auditorium, 1200 Kilauaea, Hilo  
Call in: 146.88(-) or 146.76(-)

## ILLINOIS

**Bolingbrook Amateur Radio Society**  
P.O. Box 495  
Naperville, IL 60566-0495  
(312) 420-0342 • Call in 147.93/33  
3rd Monday/monthly — 7:30 p.m.

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

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

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

**North Shore Radio Club**  
Karger Rec. Center—1850 Green Bay • Highland Park, IL  
2nd Monday/monthly — 7:30 p.m.  
For info call (312) 945-0356  
WB9FRM Repeater 147.945-600, PL 1B

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

## INDIANA

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

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

## KENTUCKY

**Kentuckiana Radio Club**  
Bill Richmond, WD4CPO, 637-8443  
Louisville Red Cross Bldg.  
Louisville, KY  
Meets: 4th Saturday/monthly — 7:30 p.m.

## MARYLAND

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

## MICHIGAN

**South Eastern Michigan A.R.A.**  
Meets: 1st Fri./monthly 7:30 p.m. K8FC Rptr. 147.70/10  
Grosse Pointe North High School  
Building C, Cafeteria Commons  
For info contact: AK8I (313) 372-1252

## MISSOURI

**St. Charles Amateur Radio Club, Inc. (SCARC)**  
St. Peters Civic Center, St. Peters, MO  
I-70 and Salt Lick Road  
Meets: 4th Tuesday/monthly—7:30 p.m.  
WB0HSI Repeater 07/67

## NEVADA

**Frontier Amateur Radio Society (FARS)**  
Meets: 1st Friday at the Fly-N-Chef at 7 p.m.  
Scenic Airlines Terminal, McCarran Airport,  
Las Vegas, NV • Net Mondays 7:30 p.m. 145.39  
Info: Bob Herrell, WB5PTO, 641-6682

## 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

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

## NEW YORK

**Communications Club of New Rochelle, NY, Inc.**  
Harrison Street Firehouse  
Bill McCarren, K2LV  
(914) 738-0768  
Meets: 1st Monday/monthly — 8 p.m.

**Hall of Science Amateur Radio Club, Inc.**  
P.O. Box 131, Jamaica, NY 11415 — HOSARC — 2nd Tuesday/  
monthly — Hall of Science Building. 47-01 111 St., Flushing  
Meadow Park at 7:30 p.m. The tristates' only 3-band linked  
rptr. system 144.300 S/223.600 - /445.225 -

**Radio Club of Junior High School 22 N.Y.C., Inc.**  
111 Columbia St. • New York, NY 10002  
"At The Core of The Big Apple," QSLs invited.  
For info contact WB2JKJ and "The Crew" learning  
English thru Ham Radio at (516) 674-4072, 24 hrs.

**Staten Island Amateur Radio Assn. (SIARA)**  
P.O. Box 495, Staten Island, NY 10314-0020  
Meets 3rd Friday/monthly — 8:00 p.m.  
Rm. B-201, College of Staten Island, Sunnyside  
Club Repeater — W2CWW/R — 440.325/445.325

## NORTH CAROLINA

**Raleigh Amateur Radio Society, Inc. (RARS)**  
P.O. Box 17124 • Raleigh, NC 27619  
Meets: 1st Wed./monthly, 7:30 p.m. • First Presb. Church  
Club net daily, 8 p.m. on RARS 04/64, W4DW  
Annual Hamfest, 2nd Sunday in April

## OHIO

**Amateur Radio Fellowship, Inc. (ARF)**  
N8HUN, Linda Delugach, Secretary  
P.O. Box 2486 • Streetsboro, OH 44241  
Meets: 1st Sat./monthly at Kent Wally Waffle  
K8BPHO repeater 147.675/075

**Ashtabula County ARC**  
Ken Stenback, A1BS (964-7316)  
County Justice Center, Jefferson, OH  
3rd Tuesday/monthly — 7:30 p.m.  
County Repeater — 146.715

## PENNSYLVANIA

**Penn Wireless Assoc. Inc.**  
Falls Twp. Municipal Bldg.  
Trenton Road  
Fallsington, PA 19054  
4th Monday/monthly — 8:00 p.m.

**Warminster Amateur Radio Club**  
P.O. Box 113, Warminster, PA 18974  
Meets: 1st Wednesday/monthly — 8:00 p.m.  
at St. Johns Lutheran Church, Hatboro, PA  
Net Wednesdays — 8:30, 147.09/69

## TENNESSEE

**Middle Tennessee Amateur Radio Society**  
University of Tennessee Space Institute  
Tullahoma, Tennessee 37388  
(615) 455-0289 Call in — 146.10/70  
Meets: 2nd Thursday/monthly — 7:30 p.m.

## UTAH

**Ogden Amateur Radio Club**  
P.O. Box 3353  
Ogden, Utah 84409  
Meets: 3rd Wed./monthly—7:00 p.m.  
at the Red Cross Bld., 20th & Washington

## VIRGINIA

**Southern Peninsula Amateur Radio Klub (SPARK)**  
Meets: 1st and 3rd Tuesdays  
Salvation Army Community Bldg. • Hampton, VA  
Operates 146/13 147/73 Repeater  
For info call 480-2346 or 851-5573

**Virginia Beach Amateur Radio Club (VBARC)**  
Open Door Chapel  
3177 Virginia Beach Blvd., Va. Beach, VA  
Meets: First Thursday/monthly — 7:30 p.m.  
For information (804) 497-1235

## WASHINGTON

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

## WEST VIRGINIA

**Jackson County Amateur Radio Club, Inc.**  
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.

**The Kanawha Amateur Radio Club**  
P.O. Box 1694 • Charleston, WV 25326  
Meets: 1st Friday/monthly-7 p.m.  
South Charleston City Hall annex  
Repeaters 6.82 and 6.88

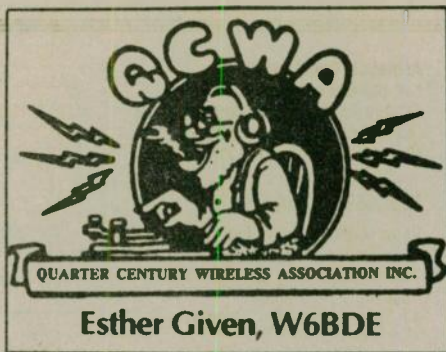
## WISCONSIN

**Fox Cities Amateur Radio Club**  
Meets: 3rd Monday/monthly — 7 p.m.  
Roosevelt Jr. High School • 318 E. Brewster St.,  
Appleton, WI 54911. Talk-in 146.16/76  
Contact Jack Bigelow, KA9JOL, (414) 766-3861

For information on how to get your  
club listed in "Visit Your Radio Club,"  
plus receive many other benefits, write  
to Jennifer Kinugawa, KB6TAA, Club Liaison,  
Worldradio, 2120-28th Street,  
Sacramento, CA 95818.







The Quarter Century Wireless Association (QCWA) is celebrating its 40th anniversary this year. It is also commemorating Amateur Radio as it was when its charter members were budding electronic geniuses in or before 1922, since each applicant in 1947 must have held an amateur license for 25 or more years to be eligible for membership.

Of the 54 charter members, 14 are still active in QCWA. These treasured elders set a precedent that has been followed by 20,500 more hams in the 40-year span.

Although it is obvious QCWA is not a youth organization, it is definitely not an organization of feeble fuddy-duddies living in the past. QCWA's 10,000-plus current membership indicates that a strong bond of ageless comradeship exists between Amateur Radio buffs. It is made up of people who have found their interest in Amateur Radio communications to be constant and enduring.

There is a special kind of empathy between those who share knowledge or experience. A pleasing human characteristic is participation in the things that allow us a few moments to recall or relive happy times with others who shared them — homecoming days, alumni gatherings, family reunions, company picnics, conventions. QCWA fills this spot for hams, enabling them to get together, swap yarns, exchange memories of places, people and times and enjoy each other's company.

Anyone who held a ham ticket 25 or more years ago (1962 or before) and who holds a valid license now is eligible for membership. For more information, please contact QCWA Headquarters, 1409 Cooper Dr., Irving, TX 75061.

QCWA members and some chapters have made themselves available by presenting the exciting hobby of Amateur Radio to folks who have retired and find themselves with too much time and not enough interests. Thanks to these dedicated hams, retirees discover there is a whole world of exciting adventure in Amateur

Radio communication. They are pleased to find they are not too old to tackle challenges in learning a new hobby, can proceed at their own leisure and have time to devote to it.

Many people hark back to a time in their youth when they "almost became a ham." Maybe the kid down the block, a science teacher or Scout experience kindled a spark that never quite ignited. Now they can carry through. In addition to those who "almost" did it, there are those who held a ham license years ago and allowed it to lapse. These ex-hams do not have to be introduced to the pleasures of Amateur Radio, but they do need to be shown that a ticket is not out of reach in the '80s.

Some of these retirees have relocated and feel out of touch with all the familiar things they left behind. What better way to keep in touch than contact with a local ham back home?

QCWA welcomes two new chapters which have been issued charters and are in full swing in their communities:

**Southeast Wisconsin Chapter 162** — chartered May 1, 1987 — is headed by President Stephen Bellgraph, K9ZL, and Secretary/Treasurer Bob Jensen, W0WLN.

**Cross Roads Chapter, 163** — chartered May 20, 1987 — will center its activities around Alexandria, Louisiana. President William Fuller, W5JBK, and Secretary Bill Hayes, N5HOW, are officers pro-tem.

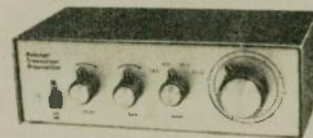
QCWA President Leland Smith, W5KLL's QTH is Jasper, Arkansas, which has a population of 519. When Leland secured personalized license plates for one of his vehicles, folks in the Jasper area were convinced their friendly neighbor's "QCWA" stood for "Queen City of Western Arkansas."

## HOSARC donations

Stephen Greenbaum, WB2KDG, informs us that the New York Hall of Science ARC Station WB2JSM has received additional new equipment from various sources. Kenwood donated an R-5000 receiver with VHF option; AEA gave a 2M isopole antenna and PK-232 6-mode unit; and Star Micronics donated a printer to the station.

**Disappointment tracks the steps of hope. In other words, 10 meters wasn't open again today.**

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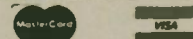
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"Hi, this is Maureen from HANDI-HAMS. How are things going?"

"Well, pretty good — actually I'm working toward my Technician and I'm wondering if I could come over and use your station on the new 10M Novice enhancement frequency?"

As quickly as it takes you to read this or to say these words was not the speed of the conversation on the other end of the phone since J.B. of Minneapolis has a significant speech deficiency caused by cerebral palsy.

I recall in the back of my mind that he passed his Novice at a school for crippled children in southwestern Minnesota years ago, and how since then he had been off again on again studying for the Technician. He, like many other non-handicapped hams, didn't really have much of an interest in code and was mainly interested in getting on in voice. The problem was, would anyone understand him?

Even as accustomed as I am to working with people who have speech handicaps, I still find it hard to understand him on the phone sometimes. Who in the world would understand him on a noisy band with QRM, QRN and QSB?

He had talked about getting on 2M, and this had been somewhat discouraged (pre-packet days), feeling that no one would want to talk to him. While it is wonderful to see someone's self-esteem go up because they have gotten a license and now want to get on the air, it is equally as disappointing to see them lose interest in Amateur Radio because no one wants to talk to them, nor can understand them.

However, J.B. was persistent and asked when we could set up a date so he could come and use the station. Rather than saying to him that I didn't think this was a very good idea, and that he would probably just get frustrated in the process of trying to make a contact on the band that — at

best — is on again/off again with the sunspot cycle, we set up a time. I arranged to have a volunteer at the HANDI-HAM shack assist him with pushing in the microphone button and getting on the air. He arrived right on time — terribly excited and ready to "talk on the air all by myself."

"Well, let's see how you do," I said. He proceeded to sit with a volunteer, making various attempts at calling CQ. No success. Eventually the volunteer came into my office and I asked him how it was going. He indicated that to his surprise, Jim was able to handle the mike by himself and did not really require any assistance. As for contacts — he had not made any.

Since he seemed to be doing fine, moving the VFO on his own and getting on the mike, I left him alone in the shack, thinking it would be best for him to just see how he could do on his own. The radio shack is located directly across the hall from my office and the door is often closed to prevent rig noise from disturbing others in the building. When the volunteer left the shack, the door was in an open position and I could hear J.B. saying some things to someone — apparently on the air. I was a little surprised, but pleased that he was perhaps trying to

call CQ or talk to someone on his own. He certainly did not have mike-fright, which is a great asset in Amateur Radio.

About an hour later, an excited voice came from across the hall, "Boy! That was exciting!" He wheeled his electric chair into my office at top speed to inform me that, "I was on the air all by myself." He had had a perfectly good QSO with a guy in Colorado lasting 45 minutes. He was so excited about it that he indicated he would definitely be back the next week to try 10M again. He lives 5 miles away and wheels over to Courage Center in his electric chair which takes him about an hour each way. That is enthusiasm!

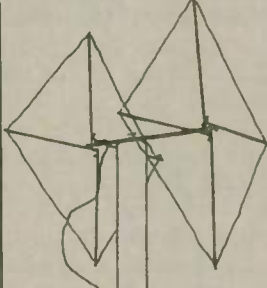


Jim Botten, KA0QJM

What this experience did for J.B. was impressive. I know he had been wanting to get on the air "by myself" to talk to people for years. It was one of those special experiences which he will probably always remember. It was the same for me.

Though it was important for J.B., it was for me a lesson in learning — a lesson in humility. Who am I to assume the abilities of another person based on their so-called disability? It is so easy to judge others because it appears that they will not be able to accomplish a task. But who knows what one person can do when they set their mind to it? It has broadened my outlook as I work with other students and hopefully will broaden yours as you are teaching in your amateur classes.

If anyone would like to set up a 10M schedule on a weekday with J.B. once the band is a little more open, please feel free to contact us at the Courage HANDI-HAM System, 3915 Golden Valley Rd., Golden Valley, MN 55422; (612) 588-0811. □



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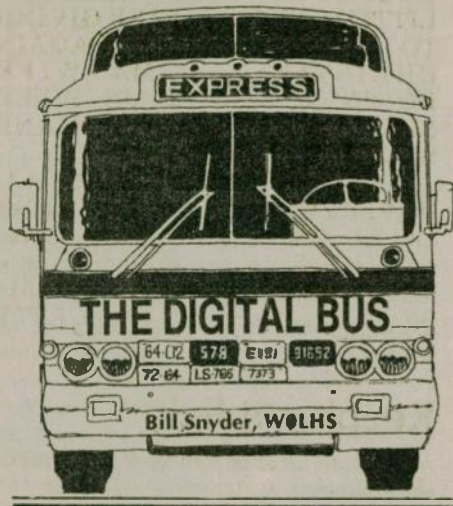
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The older we get, the more looking back we do. This was the subject of a discussion I had recently at a Sioux City, Iowa hamfest. We got to talking about the "good old days" of Amateur Radio, so here's a bit more of "good old" stuff.

My first rig — a pair of 210 tubes in a tuned-grid, tuned-plate, self-excited circuit — was also breadboard. It was built on an old small mechanical drawing board. It had all the tubes, coils and wiring exposed to the elements and to human touch. It's a wonder we hams survived the exposure to high-voltage like we did. I guess we were extra careful when we drew sparks with a lead pencil, tuned up with the aid of a neon glow lamp and made adjustments on coils, capacitors (or condensers as we termed them then) and the wiring. At any rate, we survived.

Later on, during the post WWII period, we began to build our rigs in metal chassis and racks. The commercially-built VFO was first going on sale. I remember buying a Millen VFO

unit and wiring it into my home-built transmitter. Prior to that I had always been "rock-bound," a term used for those who were limited by crystal-controlled oscillators. We ground our own crystals in those days so we could put them right on the frequency of our choice. If you ground too much of the quartz blank off, you went right by the chosen QRG, so you took another blank and did it all over again.

The next step in my ham career was the actual purchase of an "exciter." It was also made by Millen and it was designed so the VFO could plug right into it. The final amplifier was still the Class C homebrew like most of the finals in those days. I had a Gammatron tube with about 150 watts input. It pumped RF into a set of open-wire feeders that were hooked to a zepp antenna about 40 feet in the air. On CW there was little I couldn't work with that lash-up.

So, it was a lot of fun to talk about those "good old days" at Sioux City.

Al Smith, W0PEX, had invited me to deliver an oration on RTTY and AMTOR to the 3900 Club Hamboree. Because I was soaked up in the "good old days," I told the seminar more about the early years of HF RTTY than I did about modern computer stuff, but everyone seemed to be interested in the 1950's.

Bill Ogden, W0KHG, president of the 3900 group, turned out to be one of my old ham friends from the 1946-49 years. Bill had moved out of our area and we lost contact, although I did QSO with him one night when I was flying my Cessna from Des Moines to my home in North Dakota. He was auto-mobile and I was aero-mobile. It was a real reminiscing session till the batteries in my 2-meter hand-held went down.

At Sioux City, Bill and I got to rag-chewing about building final amplifiers and the thrill of smoke-testing them. We both had belonged to a foursome of hams known locally as the

"Jolly Boys." Every Saturday afternoon, the Jolly Boys would gather for hamming, six-packing or a combination of both. One Saturday afternoon, Ken Christensen, then W0GHN — one of our group — had just finished building a new push-pull final and was about to put the smoke-test to it. The remaining Jolly Boys became the gallery for the big event.



Rick Henry, 7J1ACH, at his RTTY operating position on Minami Torishima. Rick was Executive Officer and Senior Technician of the Coast Guard's Loran-C station on tiny Marcus Island inhabited by only 22 Americans and 30 Japanese. Rick has now left the Pacific post and will be on from San Juan, Puerto Rico.

Ken carefully neutralized the amplifier despite a lot of comments and suggestions from the six-packers in the gallery. The newly-constructed amp was out in plain view where we could all see the tubes glowing brightly, ready for the application of high-voltage and excitation.

"Give her the high voltage, Ken," said Ogden. "Let's see 'er go!"

Ken flipped the plate voltage switch on with a great gesture. The plates in the two final tubes immediately turned red, then brilliant white and then, to the astonishment of the group, a hole appeared in each plate. It was a miniature meltdown.

"I think you had better turn it off, Ken," said Ogden as the plates disintegrated before our eyes.

The best appraisal of the problem was that a parasitic oscillation had caused the final to take-off with no excitation and burn holes in the jugs. I can still see the look on Ken's face. It was blue — but not from the cold. Hooray for the "good old days"!

#### DX notes

A note from Walter Skudlarek, DJ6QT — who recently made a lot of RTTY DXers happy with QSL cards

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from Sierra Leone — tells us that he worked nearly 6,000 hams in 140 countries on all the bands and modes. He completed his Golden Jubilee Award by working 102 countries in 30 hours. He also worked 360 stations on 160 meters, 1,000 on 80 and made WAS in four days on that band. On RTTY, Walter worked a total of 282 amateurs in 50 countries. Congratulations, Walter.

One day I watched CT3BX creating a pile-up on his 20-meter frequency. He was trying to pick out one station from the pile of RYRYRYRYR's and call signs. It took nearly 10 minutes. When he did get hooked up, he said to the other station: "I ONLY HAVE A SMALL COMPUTER, IT CAN'T HANDLE QRM."

Father Edmund, HV2VO, of Vatican fame is now N7FUV in Tucson, Arizona. This word is from Joe, I0AOF, who has been the Vatican QSL manager.

I recently received a very nice letter from Dima Slyusarenko, UT5RP. The letter came air mail. As I had not heard Dima on steam RTTY for a very long time, I was really interested. Dima began his letter with the following paragraph: "Excuse me please for long time silence. I was very much busy due to a lot of problems which I got trying to receive units sent me like gift by Gin, JA1ACB. Unfortunately units: FT-980 and THETA 5000E still in customs and I afraid they will be confiscated. How sorry."

Dima then went on and thanked me for the Callbooks I had sent to him in 1985. I have been sending him my old Callbooks when the new ones arrive from the publishers. He then proceeded to tell me that he had passed the previous year's books on to UB0MA.

Something seemed strange about the letter. I was not sure just what it was, so I puzzled over it for a few minutes. I then discovered it had been written on May 17, 1986. It had taken five days less than one year to come air mail from Odessa in the Ukraine.

### Packeteering

The *New England PacketEar* is a very nice newsletter sponsored by the New England Packet Radio Association, Box 208, East Kingston, NH 03827. The New England group has a work group studying the NTS system and how packet traffic can be routed most efficiently. One of their ideas is to tie the first three digits of the ZIP code into the address of a National Traffic System message. I have had a NTS message locked in a loop with four stations using the present system. It just kept going round and round.

### Eavesdroppings

PLEASE EXCUSE MY FIST, MY KEYSER HAS HAD A BAD DAY... ON MOTHER'S DAY WE HAD HAILSTONES AS BIG AS AN 852 TUBE! ... 73 FROM COW COUNTRY — I HATE MILK... THERE IS SOME JOKER ON HERE FROM ALBANIA... SOMEDAY I HOPE TO GET TO USE THE UNOPENED ANTENNA ROTATOR THAT I BOUGHT IN 1975 UNBEKNOWNST TO MY WIFE. IT IS STILL HIDDEN IN THE BASEMENT... THE QTH IS WYOMING IN THE STATE OF PENNSYLVANIA... WHO IS THIS GUY ALEXANDER VOLTAGE THAT SPONSORS THE CONTEST? ... I NOW HAVE 46 COUNTRIES WORKED AND ONE CONFIRMED ... GOOD LUCK ON THE MARRYING STUFF... I NEVER COULD FIGURE OUT WHY QSB IS CALLED HEAVY WHEN THE SIGNAL GOES DOWN... HOW OLD ARE YOU? I'M 66 GOING ON 29... DON'T WORRY ABOUT BEING NEW TO RTTY, ALL OF US ARE NEW TO RTTY... I HAVE GONE INTO MY SUMMER OPERATING MODE, LOTS OF NAPS IN BETWEEN QSO'S... BACK TO YOU BEFORE MY FINALS START TO BOIL... SORRY ABOUT YOUR VIOLET HANGOVER... I LIVE WHERE I CAN SEE THE ROTTEN APPLE... I WAS JUST ELECTED PRESIDENT OF OUR LOCAL RADIATION CLUB... I THINK HE HAS WEEDS IN HIS LAWN AND GRASS IN HIS GARDEN... ANTENNA IS A SAGI (YES, IT DOES) UP 15 METERS... QSL HERE IS VERY PURE... A NICE CALL FROM XX9 OR BY0 WOULD KEEP ME HERE LONGER... TOO MANY LOCAL DX STALKERS HERE... WHEN I WRITE MY BOOK IT WILL BE CALLED THE 'HEART-BREAK OF DX'... RUNNING ON-

LY 3000 BIG WATTS — HELP, 300 LITTLE ONES... AFTER GIVING TO PTL I'M A SHORN-AGAIN CHRISTIAN... MY WIFE DOESN'T PICK ON ME SINCE SHE JOINED THE HUMANE SOCIETY.

Thanks to W2DUN, K0UAA, W7VFR, CT3BX, WA5RDO, NG9Z and all those others who contributed unknowingly to my eavesdroppings. Write me: Bill Snyder, W0LHS, 1514 So. 12th St., Fargo ND 58103. RTTY DIT DIT. □

### Keeping it light

Professor Alfred Smee, F.R.S., made the following statements: "The electric light will probably forever remain a pretty scientific toy; unless, indeed, some person shall have the good fortune to discover a battery with a carbon pole." Professor Smee died in 1877.

When the armature of a dynamo revolves in the powerful field of an electromagnet, currents will pass back and forth through the wires. But we do not want the currents to go in two ways; we do not want alternating currents.

Ref. The Fireside University, John McGovern, Union Publishing House, Chicago, 1898)

— Jay Hawk ARC, Kansas City, KS □

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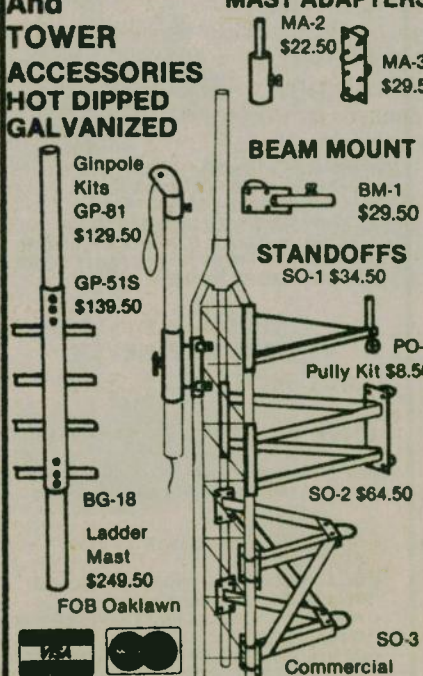
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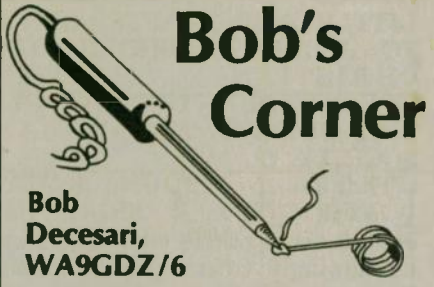


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# Bob's Corner



**Bob Decesari, WA9GDZ/6**

### Homemade plug-in coils

Several months ago, I asked our knowledgeable readers about plug-in coils and if they were still available to the general public. The answer to this question was "yes, they are still available," but not in copious quantities.

For those who grew up with band-switches in their hands, plug-in coils were used extensively in the days of regenerative receivers and simple MOPA (master oscillator power amplifier) transmitters for operation on more than just one radio band. One's radio shack drawer was usually chock full of different coil sets for each transmitter and receiver in the shack. Coils were simply changed when one wanted to operate on another amateur band.

### CMOS KEYSER KIT

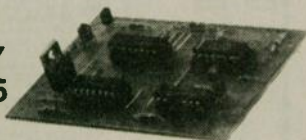
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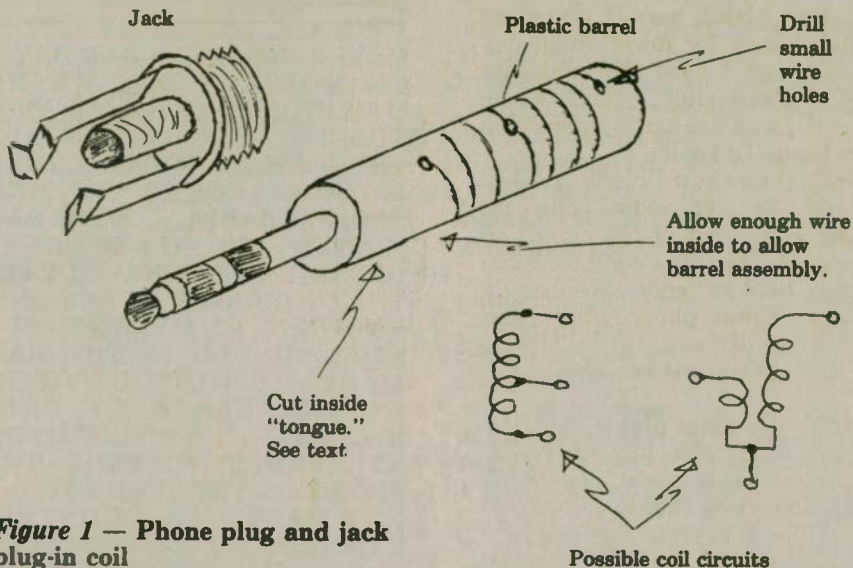
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**Figure 1 — Phone plug and jack plug-in coil**

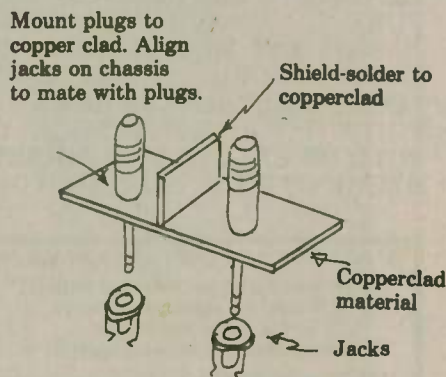
As a lot of my simple projects can be used on many frequencies, plug-in coils are ideal, hence allowing the user flexibility with the simple equipment. However, they are no longer readily available. Furthermore, as they were originally designed for use with vacuum tubes, their physical size does not complement modern solid-state systems. Therefore, I decided to see what I could come up with for a modern day plug-in coil design.

After reviewing parts catalogs and visiting several radio stores, it became apparent that a great variety of plugs and connectors are available on the market. As a plug and socket arrangement is essential for this configuration, I decided to see what kind of coil set could be contrived. *Figure 1* illustrates one of the most successful

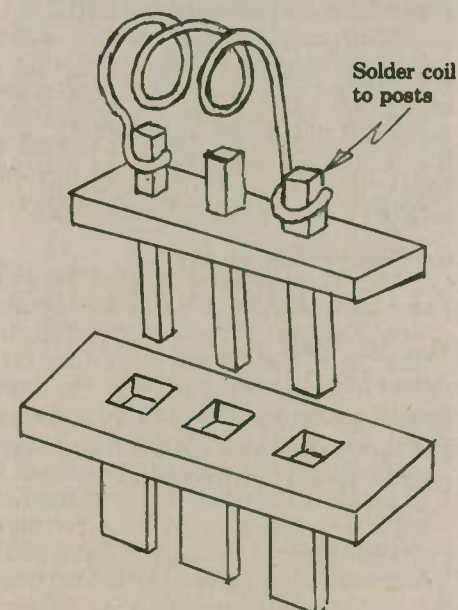
and cost-effective arrangements that I came up with.

As can be seen from the drawing, I used a standard miniature audio phone plug and jack. Specifically, I used a stereo-type plug which provides two "hot" contacts and ground; effectively, three circuits are switched with this plug and socket arrangement. The plug comes with a plastic barrel which I use to wind the coil on. When fine wire is used, it is possible to get 50 turns or so on the form.

The only modification to the plug necessary is to cut back the long ground tongue which normally is used to connect the shield of the audio cable. The reason for cutting this tongue is to keep metal out of the center of the coil, hence changing its characteristics. I also found that different manufacturers provide dif-



**Figure 2 — Coil set arrangement**



**Figure 3 — In-line plug-in header and socket**

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As I write this on the morning of June 6, the 6M band is open to Florida. Band conditions have been fair for this part of the country so far. This has been true even through the deluge that has beset this part of Texas for the past couple of weeks.

Even through the most severe thunderstorms (most of us were contemplating building an ark), the band has been open to different parts of the country. While most of us were deathly afraid to turn on the rig for fear of having it wiped out by lightning, I have been mobiling around the city trying to work whatever could be heard through the static crashes. Maybe there is something to this WST theory after all?

We've been having almost daily openings, mostly into the W4, 6, 7, 8, 9, 0 areas, but also a little double-hop Es into the NW W7's, and New England, and VE3 and VE4 land. It has been nice running into some old friends from bygone years who have come back to 6M. Why haven't you come back? You are missing the fun! Now is the time to get back on before the summer Es season and solar activity get going in full bloom.

Lefty Clement, K1TOL, heard the GB3 beacon briefly on May 29. On June 1, they heard the FY7THF beacon.

K1TOL also reported five hours of openings to Europe on June 7, starting at 0615 local time. Stations worked: CT4KQ, EA6AS, GW3WS, GM3TXX. Plus he heard several of the English beacons and Russian TV audio. Signals sounded like backscatter and conditions were marginal.

Jim Treybig, W6JKV, reported KL6NO and VE8's being heard in the San Francisco Bay area, the evening of June 6.

On June 5, we here in San Antonio experienced an unusual 2M Es opening during what appeared to be an average 6M event. It opened up to northern Ohio and Michigan from 1430 to 1530 GMT on 2M. Other parts of the country are reporting excellent double-hop Es from West to East Coast areas.

Are you looking for used 6M equipment? SMIRK is still operating their Used 6M Equipment Hotline program. Do you have used 6M gear for sale? Call me at the telephone number listed at the end of this column to find out what is on the list, or to add your equipment to it.

Don Bush has discovered a source of several dozen new ICOM IC-502A 6M portable/fixed SSB/CW transceivers which are available for \$200 shipped. You could tie one of these to one of the smaller rated 6M amplifiers and put out quite a respectable signal.

Pat Bunn, N4LTA, makes custom-made 6M amps with 10W of drive for 100W output, including the relay for \$150. He has told me he could make a 2-3W input model for about 35-40W output for \$125. He can be contacted at (803) 583-1304.

Remember all the fun times you had

---

**Now is the time to get back on before the summer Es season and solar activity get going in full bloom.**

---

with your 502 during band openings? The past issues of the SMIRK *Six Shooter* often chronicled stories of DX worked on them. If interested, contact Don at (716) 322-7955 and Pat Bunn. Don also can provide several dozen new ICOM IC-202's at \$200, and ICOM IC-402's at \$275.

Wenty Bethune, 6Y5IC, in Kingston, Jamaica is very interested in getting on 6M, but is looking for someone who can loan him some gear. SMIRK has an ICOM IC-502 we can loan, and I will be in contact with him. If someone has something better, contact him.

I am told that in addition to ICOM coming out with their new IC-757 rig, Yaesu is planning a 45W 6M rig, expected out by the end of June. Kenwood is also said to be planning on marketing a new 6M rig soon. It appears that the price for the IC-757 is

going to be high, as it is a dual-band rig with many of the features of a full-blown HF rig. However, it will give 6M operators a new piece of equipment to buy with state-of-the-art features.

Al Ogrizovich, KX5U/IT9, has written to inform me he is in Sigonella, Italy. Unfortunately, they do not allow 6M operation. Al did not take his 6M rig with him because of lack of operating privileges. I would like to point out, however, that it is important to take a small 6M rig with you when you are assigned to an area that does not permit 6M operation, for two reasons.

1) Although you might not be allowed to operate, your input on what you hear from the area you are in could be invaluable to many of us involved in studying 6M propagation, particularly from areas never or seldom heard from. For an antenna, you could build a small 2-element quad featured in the #39 edition of SMIRK's *Six Shooter* newsletter.

2) Even if 6M operation is not allowed at the time you inquired, it is possible that you might be able to gain 6M operating privileges for a limited period of time and a frequency for

serious propagation studies, after your arrival in the area. Those of you in the service of our country or working overseas in industry should take your 6M gear with you, if only to be able to listen and report activity.

After considerable discussion concerning the 10M coordination frequency for 6M activity, the consensus is that 28.385 should be the new coordination frequency. At such time as the activity around that frequency makes coordination too difficult to continue, the operator serving as the coordinator will announce on the frequency that s/he is QSY'ing to the alternate frequency of 28.885 MHz,  $\pm$ QRM. This arrangement should serve all interests well.

I hope you enjoyed all the activity from the various contests and Field Day activity. Did you remember to turn in your logs? I know that all the organizations that run contests would like *all* of you to turn in your contest logs. Just because you may have a small station set-up or a bad location or do not think you did well, does not mean you won't do well in the contest.

That is all for now. I can be reached at (512) 674-5781 after 6 p.m. during the week and all day Saturday. On Sunday, call after 4 p.m. □

### West Coast Swap Sheets

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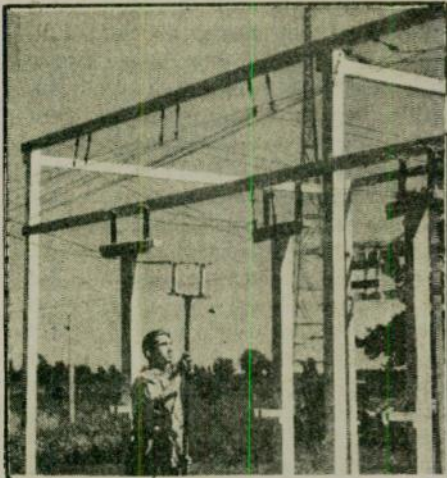
Got anything to swap?

List it with us. For info SASE

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# AERIALS

Three months ago (May issue), we ran one of Kurt N. Sterba's old columns. Starting with this issue, we will be running all of his columns, in the order they appeared, beginning with this first one (January 1981).

With the myriad of antenna books on the market it is amazing some of the things one hears on the bands about antennas. Maybe the people who buy them are using them as doorsteps.

One recent conversation heard in the portion of the 40M band reserved for those who supposedly know more went like this, "I just don't know what's wrong. I cut this antenna exactly to the length in the book and the SWR is really high. I've gone out and measured it several times with a yardstick and it's exactly right. Can't figure it out." It later came out that the antenna was about 20 feet above the ground.

Maybe the FCC should get some of that really dumb stuff out of the test and ask if height above ground affects impedance.

Who knows, there might be an old junk car buried under your antenna, or maybe a silver mine. Anything can affect the antenna, and the lengths in the charts are nothing more than starting points!

One interesting experiment is changing the apex angle of an inverted V antenna, watching the SWR change and correcting the situation with little pigtailed hung on the ends of the antenna. Small changes in where the ends are tied down and the steps necessary to compensate can be illuminating as to the nature of antennas.

Another oft-heard statement, that should get an FCC citation from the monitoring station, is "I cut two feet off the feedline and the SWR came down." While the measurement may

have changed, the true SWR did NOT NOT. (NOT NOT is the way the wire services used to send NOT so if a garble knocked out one NOT the other would make it through and the sentence would not change meaning as in "not guilty.") Well, anyone saying that changing length has anything to do with real SWR is indeed guilty of "junk radio."

Now, the truth is (sadly enough) with those \$3.98 SWR meters, any reading is doing nothing more than just amusing the operator.

Here is a statement that sets many teeth rattling, always among those who will never try the tests to see if it is true. "An SWR reading taken at the station position through a random length of coax is meaningless." Truer words have never been uttered. The reading you get through a random length is telling you it can be no lower than that, but it can be anything higher.

There are only two ways to know what is really happening. One way is to measure the SWR at the antenna itself. For most, that method is not overly practical. The other method is almost like a free lunch. But it is not without controversy. One seminar speaker would dash from convention to convention saying that it was bunk.

However, what cannot be disputed is that "a 1/2-wavelength line will mirror whatever impedance it sees at the other end." That would mean you could measure accurately from a distance. You can use the multiples of a 1/2-wavelength line and see what is really happening "up there."

Unfortunately, the velocity factor figures published for coax vary not only from roll to roll, but also in the length itself. There is only one way to have any real idea of what is going on and that is with the noise bridge. My favorite is the Palomar.

With your station receiver tuned to the frequency you will center your system at, you can cut the line right to the spot. The directions say to push a pin in, listen for the null, then pull the pin out and look at a different place and see if the noise goes down.

Not many of us have sound level memories of any accuracy built into our heads. So, a better method is to use two pins. Push one in. Listen. Push another pin in, up the line and then pull out the other. You will have an instant change to judge from.

Going in the other direction, push in one pin, listen, then push in another pin closer to the receiver. Seeing if the noise goes up or down tells you which way to move.

Two cautions to folks just getting into this game. One radio store owner

told me of an unhappy customer flinging a noise bridge on the counter and demanding his money back because it didn't work! Turned out he thought "null" meant get louder. It means get softer.

Also, do not transmit through a noise bridge or you will have an extra noise bridge on your hands.

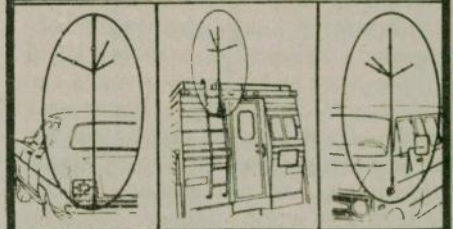
Then with your perfectly cut line on your hands, you can hook up to your antenna and bridge the antenna. The Palomar can tell you if the antenna is long or short. Then after appropriate (continued on next page)

Only the genuine has these trademarks

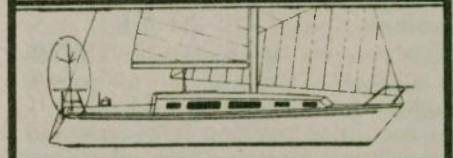
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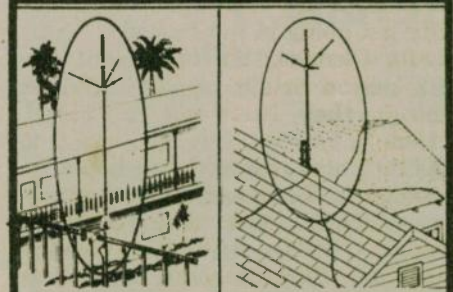
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*Excerpts from remarks by Major General William E. Overacker, USAF, W4TJN, at the Dayton, Ohio Hamvention, April 25, 1987.*

All of us together, whether we recognize it or not, and whether we believe it or not, are a team in our country. This country is not defended just by those of us who wear the military uniform — whether it's Army, Navy, Marines or Air Force — but in a real sense by all of us. That's particularly true of the folks in the MARS program.

MARS began in the mid-'20s. It was a purely military organization, and it lasted until a big emergency hit us on December 7, 1941. When the United States was attacked, we had a sudden and immediate need for radio operators to serve us in all parts of the world. About 8,000 civilians that were trained in what was the Army Amateur Radio System filled a very critical need. It was critical because we didn't have time to train radio operators; it was critical because communications were essential to the job we set out to do; and it was critical because we did not have a sufficient number of schoolhouses, instructors or facilities to train the people we needed.

The AARS was not on the air during that period of time, and it wasn't until 1948 that we again became a radio service. In about 1950, we included civilians into what is now the MARS program, and then as late as 1962, when the Navy/Marine Corps joined the program, we truly became a tri-service Military Affiliate Radio System.

MARS is primarily an HF activity with some VHF activity. But if you stop and think about it, it is — as we have emphasized — an HF activity.

We saw this during the Viet-Nam war. In 1965 we had exactly one commercial telephone line between Saigon



Maj. Gen. W.E. Overacker, W4TJN

and the United States. We asked the Military Airlift Command — the command to which I belong — to move some MARS stations into Viet-Nam and to begin phone patch activities back to the United States for the families of service members who were serving in that theater.

That service grew from about 14,000 phone patches a year to about a quarter of a million phone patches per year at its peak. As a matter of fact, here in the United States, MARS and Amateur Radio operators received and forwarded those calls day and night, seven days a week, 24 hours a day, for years. Today at this HamVen-

tion, I went around in uniform and a lady stopped me and said "General, I just wanted to tell you that I had a son in Viet-Nam and I also had a husband in Viet-Nam who did not come back. The one thing I will remember is the fact that MARS provided me that link to my husband until the day before he was killed in battle in Viet-Nam." The reputation of the MARS program is known far and wide, and is appreciated by everyone.

When the Ayatollah came to power in Iran and the "students" seized the American Embassy, regular communication between Iran and the United States collapsed for almost two days. We had no word at all out of Iran until a man many of you know — Hap Arnold at Andrews, the Chief of the Air Ground Communications for the Communications Group there — searched the airways for some contact and, finally, at 7:00 in the morning, found an amateur station broadcasting out of Teheran.

For a few hours, Mr. Arnold held the only thin communications thread that we had with Iran and provided the vital communications link that we needed to make sure that in fact we were getting the right information from that country.

The first news of the September 1985 earthquake in Mexico City reached the United States through Clyde Mathe, the manager of the Robins AFB MARS station. The earthquake that leveled sections of Anchorage, Alaska in 1964 depended on MARS for communications with the outside world. In 1976, Typhoon Pamela flooded Guam's communications system, and it was MARS that filled the gap. When Hurricane Eva hit Johnston Island and damaged the submarine cable in 1983, it was MARS that kept Johnston Island linked to the outside world for 45 continuous days.

*(please turn to page 59)*

## Aerials

*(continued from page 51)*

trimming, the nulls should all fall at the right place.

If all looks good, you can put a true reading wattmeter in the line, look at the reverse power and know that this is the real thing. It is a delight — sheer beauty — to see no reflected power and know that, for this particular antenna system, it is as good as it could be. If you see 1 or 2 watts coming back, it is hardly worth another trip outside. Unless, of course, you are a QRPer running 2 watts forward.

Here's a trick if you live in a noisy location, like over a drugstore with a bad neon sign or next door to a

Volkswagen garage. Say you have a dipole up. Take two pieces of identical length coax. Put the center conductor of one length on the left side of the center insulator. Put the center conductor of the other piece on the right side of the center insulator. Bond the shields together.

Then when you come into the sta-

tion, put one center conductor to one terminal of the antenna tuner; put the other center conductor on the other terminal. Bond the shields together and ground them. (NOTE: this has to be one of the two-wire tuners, not the little one-wire feed jobs. The ambient noise will go down considerably, and with quieter reception, little weak signals will be heard.)

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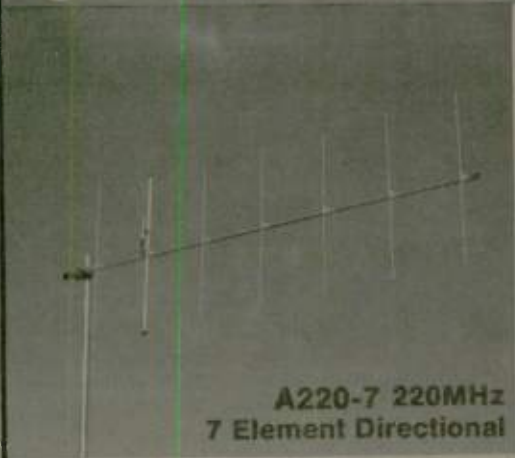
Next month in this space we'll tell the truth about vertical antennas and the shortened dipoles. If you have any perplexing, bothersome antenna questions send them in. We'll send them to Lew McCoy and see if he can answer them. □



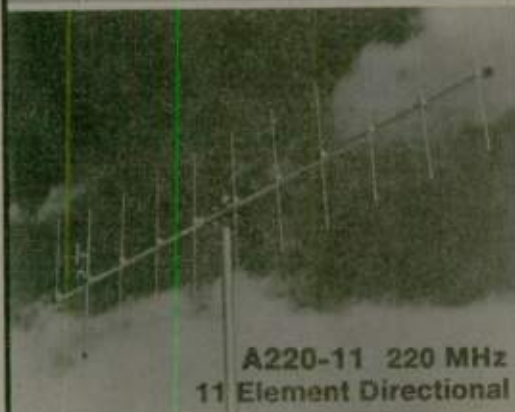


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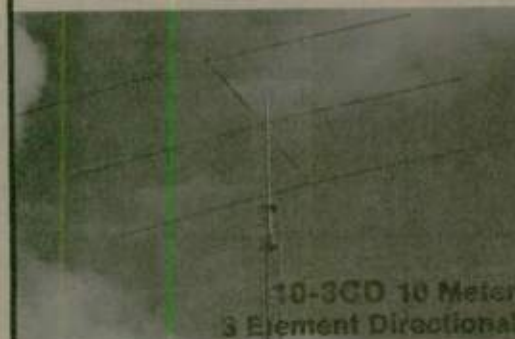
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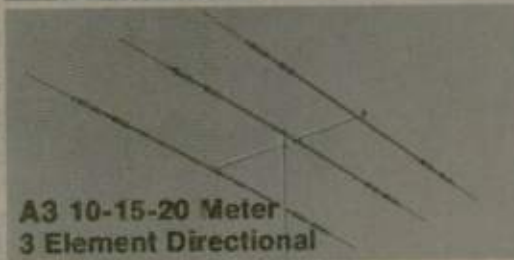
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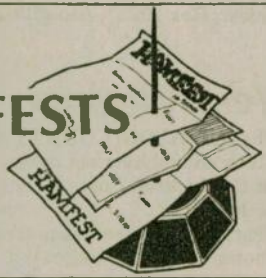
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# HAMFESTS



## Alabama

The HUNTSVILLE HAMFEST and ARRL Alabama State Convention will be held August 15-16, at the Von Braun Civic Center, 700 Monroe Street, Huntsville.

There will be various meetings and forums, flea market, dealers/distributors and non-ham activities — all in an air-conditioned facility. No admission charge. Sandwiches and soft drinks on site; restaurants and fast food outlets nearby. Hours 9 a.m. to 5 p.m. Saturday; 9 a.m. to 3 p.m. Sunday, CDT.

Amateur exams on Saturday the 15th; walk-ins welcome. Bring your original license, a copy of your license, identification (preferably one with your photo) and \$4.

Talk-in on .34/94.

Contact Gwin Givens, at (205) 883-2760, or Don Tunstall at (205) 536-3904 for more information. □

## California

The TRI-COUNTY ARA will hold its 1987 hamfest on Saturday, August 15, from 7 a.m. to 3 p.m., at Palomares Park on Arrow Highway, Pomona.

Palomares Park is air-conditioned. A security guard will be on duty to park cars. Plenty of food and coffee. Dealers' displays, ARRL Forum, technical topics and FCC exams given by VE Frank Westphal, KF6E. Tables to non-members are \$5 each; \$2 to members. Talk-in on 146.025 (+600).

For table reservations, contact Eugene Hoelzle, K6PMC, 1071 Vanderbilt, Claremont, CA 91711; (714) 624-6382. □

## Colorado

SKI COUNTRY ARC will host its 6th annual hamfest on August 8, in conjunction with the Colorado Council of ARC summer

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**FALLERT'S ENGRAVING**  
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meeting at the CMC building, 1402 Blake Avenue, Glenwood Springs, from 9 a.m. to 3 p.m.

Admission is free, tables \$5, refreshments and lunch will be available. VE exams at 9 a.m. Videotapes, packet and AMSAT demos, HF station on the air. Campout at Reudi Reservoir after hamfest.

Talk-in on 146.07/67.

For more information contact Bob Ludtke, K9MWM, 406 Yale Circle, Glenwood Springs, CO 81601; (303) 945-8722. □

## Florida

The 14th Annual GREATER JACKSONVILLE HAMFEST will be August 1-2 at the new Prime Osborn Convention Center, in Jacksonville, Florida. The site is near the junction of I-10 and I-95 on the banks of the St. Johns River. New riverfront attractions include a festival shopping mall and river boardwalk which will provide interesting alternative activities for the family.

A full slate of programs and forums will be scheduled and the hamfest will feature an expanded indoor swap area along with many exhibitors of new equipment. Computer enthusiasts will find plenty to interest them.

Hamfest hours will be 8 a.m. to 5 p.m. on Saturday and 9 a.m. to 3 p.m. on Sunday. Exhibitor and swap area set-up will be from 8 a.m. to 5 p.m. Friday. There will be three major prizes and many hourly gifts. The hamfest is sponsored by the six major clubs in the Florida Crown area, and all proceeds will go toward the betterment of Amateur Radio through these organizations.

Registration is \$5 in advance or at the door. Swap tables are \$9 for one day and \$15 for the weekend.

For information on exhibitor booths, please contact Barry Baines, WD4ASW at (904) 398-5185. For swap tables, reservations and information call (904) 350-9193. Mailing address for registrations and swap tables is P.O. Box 10623, Jacksonville, FL 32207.

Make plans to join us in our new spacious facility which is completely air conditioned with plenty of parking. For hotel information, contact above address.

## Illinois

The HAMFESTERS RADIO CLUB proudly announces its 53rd annual hamfest, celebrating its 54th year of service in the Chicago area. The hamfest will be held Sunday, August 9, at Santa Fe Park, 91st and Wolf Road, Willow Springs.

Prize drawings. Set-up and overnight parking will be permitted after 10 p.m., Saturday the 8th. Admission is \$3 in advance, \$4 at the gate. Everyone over 15 years old must have a ticket. Requests for advance tickets must be postmarked by July 27, 1987. Send SASE and check to: John Schipitsch, W9BNR, 13058 Finch Ct., Lockport, IL 60441.

For general information, phone (312) 403-1043. □

## Indiana

The PORTER COUNTY ARC presents the Northwest Indiana Hamfest and Computer Fair at the 49'er Drive-In Theater, Rt. 49, north of Valparaiso, on August 2.

Gates open at 7 a.m. (at 6 a.m. for vendors). Surrounding area attractions are beautiful Dunes State Park near scenic Lake Michigan, Mink Lake Golfing across the road, several lakes to fish, boating, camping, an amusement park for the kids. See the site of the Pan-Am boat racing games, shopping center close by, home of the Popcorn Festival. Food and snack bar available. VE testing for all class licenses. Free parking. Admission \$3.50 per person (children under 12 free).

Talk-in on 146.775/175 MHz and 145.45/144.950.

For more information, contact Rich Stahl, K9LBO, P.O. Box 1782, Valparaiso, IN 46383. □

The 8th Annual GRANT COUNTY ARC hamfest will be held Sunday, August 9, at the 4-H Fairgrounds in Marion.

Doors open at 8 a.m. with refreshments, free parking, VE license exams and hourly prizes. ARRL-sponsored. Donations are \$3 in advance, \$4 at the gate. Table reservations: inside — \$4; flea market space — \$2.

For information/tickets, send SASE to: Brooks Clark, WB9EAP, 2202 So. Boots St., Marion, IN 46953. □

## Iowa

The CEDAR VALLEY ARC, Inc. is sponsoring their "Summerfest 87" at Cedar Rapids Five Seasons Center from 8 a.m. to 5 p.m. on August 1, and from 8 a.m. to 3 p.m. on August 2.

There will be Amateur Radio and computer seminars, FCC exams, a large variety of commercial vendors, a rummage flea market and ladies' hospitality room — all in inside air-conditioning.

Special hotel rates at Stouffer Five Seasons can be obtained by calling (319) 363-8161 and asking for Summerfest 87. A delicious and tantalizing buffet dinner will be held on Saturday night; advance registration please. For Saturday shoppers, Cedar Rapids has a skyway system linking the arena and downtown department stores.

Tables (8') are \$10 each. Commercial \$20 per booth, \$15 each thereafter. Phone (319) 377-3829. Admission (adult) \$5 advanced, \$8

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at door; student admission \$3 advanced, \$4 at door; age 12 and under free. Banquet buffet tickets \$10; \$13 at door if available.

Talk-in on .16/76 and .52.

For advance registration, write to Summerfest 87, 2825-23rd Ave., Marion, IA 52302; or phone (319) 377-2761 or (319) 362-3602. □

## Minnesota

The ST. CLOUD ARC Hamfest will be held at Whitney Senior Center in St. Cloud, on August 9. (Off Hwy. 10 into Sauk Rapids via Benton Drive to 9th Avenue in St. Cloud to Northway Drive, south of Vo-Tech School. Off I-94 to Highway 15 to Vo-Tech School and Northway Drive.)

Ticket donation — \$3; extra ticket — \$2. Lunch counter.

Talk-in on 34/94 primary and 615/015 secondary.

Contact: SCARC, Box 141, St. Cloud, MN 56302. □

## Missouri

The St. Charles ARC will sponsor HAMFEST87 on August 23 at Blanchette Park in St. Charles, from 6:30 a.m. to 3:30 p.m.

Free admission and parking (including handicapped spaces); \$2 donation requested for tailgate flea market. Food available. Forums and FCC license exams (10 a.m. — walk-ins only). Dealers welcome in non-air-conditioned hall.

Talk-in on 146.07/67 repeater and 146.52 simplex.

Contact Eric Koch, NF0Q, 2805 Westminster, St. Charles, MO 63301; (314) 946-0948.

For the gift that keeps on giving, see p.9.

## Pennsylvania

The MID-ATLANTIC ARC announces its annual hamfest, to be held Sunday, August 9, from 8 a.m. to 3 p.m. rain or shine.

Tailgate set-up begins at 7 a.m. Hamfest located at the Bucks County Drive-In Theatre, Route 611, Warrington, PA (5 miles north of the Willow Grove exit of the Pennsylvania Turnpike). Admission: \$3 with \$2 additional for each tailgate space. Bring your own table. Ample parking and refreshments.

Talk-in on WB3JOE/R, 147.66/06 or 146.52.

For further information write MARC, 203 Second Ave., Broomall, PA 19008; or call John Bartholomew, WB3ELA, (215) 356-7197. □

## Tennessee

The MAURY ARC will sponsor its 1st annual indoor hamfest on Sunday, August 2, at the American Legion Post 19 on the New Nashville Highway in Columbia, from 8 a.m. to 4 p.m. Admission \$2. Tables \$5. Air-conditioned. Food and refreshments. VE license exams.

Talk-in on 147.72/12.

To reserve tables or get more information, contact George Russell, WB4JCR, Box 832, Columbia, TN 38402 or call (615) 388-0577. □

## Texas

The PANHANDLE ARC will hold its 13th annual PARC-Golden Spread Hamfest, August 8-9. The 'fest will start at 9 a.m. both Saturday and Sunday at the Inn of Amarillo, 601 Amarillo Boulevard West, Amarillo.

Pre-registration is \$5; admission at the door is \$6. Commercial distributors, dealers and flea market tables (\$5 each). VE testing, walk-ins only, both days.

For more information, write to PARC Hamfest, Box 10221, Amarillo, TX 79116. □

## West Virginia

The JACKSON COUNTY ARC will hold its 10th annual hamfest on Saturday, August 8, at the Jackson County Junior Fairgrounds near Ripley.

Featured will be a flea market, FCC exams, demonstrations, ladies' activities and refreshments.

Talk-in on 146.07/67.

For additional information, write to Les Shockley, WB8SNO, RFD #2, Box 36, Sandville, WV 25275. □



Dick Randall, K6ARE, shares this picture of his shaving mug. Notice the key; the opposite side has his call sign.

## QEP's

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## YL/OM Summer SSB Spring contest

The Young Ladies' Radio League (YLRL) is sponsoring the YL/OM Summer SSB Sprint contest on Saturday, August 1, 1800-2200 UTC. All licensed men and women throughout the world are invited to participate.

**Procedure:** OM's call "CQ YL" and YL's call "CQ OM".

**Operation:** All HF bands may be used. No crossband operation. Net contacts and repeater contacts do not count. Stations may be worked and counted once on each band. The maximum power output that may be used at any time during the contest is 1500 watts PEP.

**Exchange:** Station worked, RS, name and state/province/country. Entries in log must also show date, time, band and power.

**Scoring:** YL's may count only OM's and OM's may count only YL's for QSO points.

**A) QSO points:** A station may be worked once on each band. For each band, count the number of different stations worked. Add the QSO points for each band together for the total QSO points.

**B) Alpha-numeric multiplier:** Using the last number and the first letter following that number of a call sign, there are a total of 260 combinations possible (i.e., a possibility of 26 letters with each of 10 numbers 1-0. W1XZ is a 1X, W2GLB/7 is a 2G, 9Y4A is a 4A, etc). Add the number of different alpha-numeric combinations worked on each band. Add the total for each band together for your alpha-numeric multiplier.

**C) Low-power multiplier:** Contestants running with a power output of 200 watts PEP or less at all times, may multiply the results by 1.50 (low-power multiplier).

**D) Total score:** Total QSO points x alpha-numeric multiplier x low-power multiplier (if applicable).

**Awards:** Certificates will be awarded to the three highest scoring OM's and three highest scoring YL's. The top scoring OM and YL from each district/province/country will also receive certificates providing there are at least 10 valid contacts on the log.

**Logs:** Please print or type logs. Do not send a carbon copy of your log. All logs must be signed by the operator and must show the state/province/country of the operator. Indicate claimed score in the log. No logs will be returned. Logs must be received by September 1, 1987 by Vice President Mary Lou Brown, NM7N, 504 Channel View Dr., Anacortes, WA 98221.

**Suggested frequencies:** 80M — 3.940-3.970; 40M — 7.240-7.270; 20M — 14.250-14.280; 15M — 21.380-21.410; 10M — 28.580-28.610 MHz. □

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## Two-M QSO Party

The Side Winders On Two (SWOT) Open QSO Party will be from 1900 UTC, Saturday, August 1, until 0400 UTC, Monday, August 3. Use SSB or CW from 144 to 144.3 MHz. Relayed or repeater contacts are not permitted.

Exchange call signs, SWOT numbers and grid square locators. Contacts with SWOT members count 2 pts. and non-members count 1 pt. The score is the total of points x total grid squares worked.

Certificates for high score in each ARRL section. Send suggestions on format and dates for possible future SWOT contests with a copy of your log by August 15 to: Jerome Doerrie, K5IS, Rt. 2 Box 72, Booker, TX 79005. □

## NM QSO Party

The Albuquerque DX Association is sponsoring a New Mexico QSO Party from 1600Z, August 15 to 2100Z, August 16.

**Suggested frequencies (± QRM):** CW — 1.810, 3.555, 7.055, 14.055, 21.055, 28.055 MHz; Phone — 1.845, 3.945, 7.280, 14.280, 21.380, 28.580 MHz.

**Rules:** 1) All QSO's must include at least one New Mexico station. 2) Stations outside New Mexico, please don't call "CQ NM" on the above listed frequencies, else you QRM your mobiles. 3) No repeater, crossband, crossmode or satellite contacts. 4) Work stations once each band each mode. 5) New Mexico mobile stations may be worked once each band and mode in different counties. 6) New Mexico "county line" contacts count as one QSO and two counties.

**Modes:** Digital (CW/RTTY/packet) and Phone (SSB/AM/FM)

**Station classes:** Class A — Inside New Mexico, but outside home county; Class B — New Mexico stations at a home QTH; Class C — New Mexico mobile station, capable of operation in motion; Class D — All stations outside New Mexico.

**Exchange:** New Mexico stations send signal report and county. Other stations send signal report and state, province or country.

**Scoring:** Each Digital QSO counts 3 pts. Each Phone QSO counts 2 pts.

**Multipliers:** New Mexico counties: 33 maximum; VE provinces: 12 maximum; DX countries: ARRL DXCC List except USA and Canada; States: 48 maximum (AK and HI on DX List).

**Total score:** Multiply total QSO points by total multipliers. Class A stations multiply total score by 3; Class B stations multiply total score by 2; Class C stations multiply total score by 5; Class D stations multiply total score by 10.

**Examples:**

Class A — QSO pts. (VE provinces + DX countries + states) 3; Class D — QSO pts. (NM counties) 10

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**Awards:** A certificate will be awarded to the winner in each state, province, DX country and each New Mexico county. A plaque will be awarded to the top scorer in New Mexico. A plaque will be awarded to the top scorer outside New Mexico.

**Logs:** Include a summary sheet with logs and a dupe sheet if you have more than 200 contacts. Entries must be postmarked no later than September 30, 1987. Mail to: Bob Thanisch, KN5D, NM QSO Party, P.O. Box 997, Corrales, NM 87048. □

## New Jersey QSO Party

The Englewood Amateur Radio Association, Inc. invites all amateurs the world over to take part in the 28th Annual New Jersey QSO Party, August 15-16.

**Operation:** 2000 UTC, Saturday, August 15 to 0700 UTC, Sunday, August 16 and from 1300 UTC, Sunday, August 16 to 0200 UTC, Monday, August 17.

**Modes:** Phone and CW are considered the same contest. A station may be contacted once on each band. Phone and CW are considered separate bands. CW contacts may not be made in phone band segments. New Jersey stations may work other New Jersey stations.

**Call:** "CQ New Jersey" or "CQ NJ". New Jersey stations are requested to identify themselves by signing "DE NJ" on CW and "New Jersey calling" on phone.

**Suggested frequencies:** 1810, 3535, 3950, 7035, 7135, 7235, 14035, 14285, 21100, 21355, 28100, 28400, 50-50.5 and 144-146. Suggest phone activity on the even hours; 15/10 meters on the odd hours (1500 to 2100 UTC); 160 meters at 0500 UTC.

**Exchange:** QSO number, RST and QTH (ARRL Section or country). New Jersey stations will send county for their QTH.

**Scoring:** Out-of-state stations multiply number of complete contacts with New Jersey stations times the number of New Jersey counties worked (maximum of 21). New Jersey stations: W-K-VE-VO QSO's count as 1 pt.; DX stations count as 3 pts. Multiply total number of points by the number of ARRL sections (including NNJ and SNJ). KP4, KH6, KL7, etc. count as 3 pt. DX contacts as well as section multipliers.

**Awards:** Certificates will be awarded to the first place station in each New Jersey county, ARRL section and country. In addition, a second place certificate will be awarded when four or more logs are received. Novice, Technician and mobile operator certificates will also be given.

**Logs:** Logs must show the UTC date and time, band and emission, and be received not later than September 12, 1987. The first contact for each claimed multiplier must be indicated and numbered and a check list of contacts and multipliers should be included. Multi-operator stations should be noted and calls to participating operators listed. Logs and comments should be sent to: Englewood ARA, Inc., P.O. Box 528, Englewood, NJ 07631-0528. A #10 SASE should be included for results.

Stations planning active participation in New Jersey are requested to advise the EARA by August 1 of their intentions so that we can plan for full coverage from all counties. Portable and mobile operation is encouraged. □





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

## ATV transmitter

P.C. Electronics introduced their model TX70-1 1W 70cm (420-450 MHz) ATV transmitter at the Dayton HamVention, April 24. The small transmitter (6" x 5.2" x 2.5") will enable Technician Class (or higher) amateurs to transmit live action color or black-and-white composite video and audio from cameras, VCRs or computers, to other hams. The TX70-1 is a companion to the TVC-4G receiving downconverter. This is an ideal addition for the ham who got a downconverter to see what ATV was all about and now wants to transmit without buying a full transceiver.

The TX70-1 contains the improved KPA5-c transmitter board, which added a video monitor output of the actual modulated RF. The unit comes with one crystal but has provisions for switching between two frequencies. The most popular customer-specified frequencies are 426.25, 434.0 and 439.25. A switch is also provided to select video and audio input from either the 10-pin VHS-type home color cameras, or phone jacks for other cameras, VCRs, computers or any composite video and line level audio source.

A mic jack and "push to look" (same as push to talk, but this is video) jack is available for low impedance dynamic microphones and transmit/receive switching. The external power requirement is 12 to 14VDC at 500mA plus whatever the connected 12V camera draws. The antenna connector is a type N and a BNC outputs to the receiving downconverter from the built-in RF T/R relay.

The shielded cabinet of the TX70-1 is small enough to be put in a knapsack for portable work such as a cordless camera to remote VCR or for public service events. Theoretical snow-free line-of-sight DX using the 1W TX70-1, TVC-4G downconverter and 6-element KLM 440-6X beams is 5 miles. For greater DX with mobile or base applications, the output power and the sync stretcher in the video modulator of the TX70-1 matches the 50W Mirage D24N amplifier's linear input vs. output range.

Licensed amateurs may contact P.C. Electronics (2522 Paxson Ln., Arcadia, CA 91006; (818) 447-4565) for more information and a complete catalog of this and other ATV products for the 70, 33 and 23cm bands. The TX70-1 transmitter is \$229 for single frequency, and \$15 for the second crystal. □



## RFI-Free Choke kit

MFJ Enterprises, Inc. is introducing its new MFJ-701 RFI-FREE CHOKE kit that eliminates RFI (radio frequency interference) problems that affect TV's, radios, stereos, telephones, VCR's, computers, PA systems, burglar and fire alarms, test equipment, modems, monitors and other electronic devices.

The proven and highly effective solution for eliminating RFI is to wind an offending cable or wire around a ferrite toroid to choke off and eliminate RFI. The problem is finding a toroid with the proper characteristics that has a big enough hole to pass through the end of a power cord or AC adapter or microphone cord or speaker leads, etc.

The new MFJ-701 RFI-FREE CHOKE kit gives you a package of four RFI-eliminating

toroids with complete instructions for \$14.95 retail. These toroids not only have the right properties for eliminating RFI, but each toroid separates into halves. This makes it easy to wind around the toroid nearly any kind of wire or cable. For example, computer ribbon cable, coax cable or a power cord with an AC adapter on its end can be wound around the toroid easily. The toroid halves then mount in a snap-together plastic frame.

The individual toroids also snap together into a stack. This increases effectiveness for large-diameter wires when only a few turns can be wound around the toroid.

For additional information on the MFJ-701 RFI-FREE CHOKE kit, contact MFJ Enterprises, Inc., 921 Louisville Rd., Starkville, MS 39759; (800) 647-1800 or (601) 323-5869; Telex 53-4590 MFJ STKV. □

## Morse: The Code Machine

Morse: The Code Machine teaches and enhances code skills. The package includes a manual and program disk. The 32-page manual has operation instructions, charts, figures, tables, lesson plans, methods for learning/enhancing skills and more.

The program has 31 modes which include: Code Graphics On/Off; Sound On/Off; Frequency Selection; Special Signals Send Mode; Extended Sound Spacing; Drill, Practice and Teach Sessions; View Mode; Space Generation (Fixed and Variable Range); Character

Selection and Generation; Disk Commands (Catalog, Load, Save); and more. Also included are selection menus, graphics, word-processor, 1-100 wpm selectable speed range, etc.

The program runs on the APPLE II+ /c/e. Six versions of this program are available ranging in price from \$29.95 to \$89.85. For detailed information, contact LARESCO, P.O. Box 2018, 1200 Ring Rd., Calumet City, IL 60409; (312) 891-3279. □

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# 10M/6M base station transceiver

ICOM introduces a new 10M and 6M dual band base station transceiver — the IC-575A.

This wide-band all-mode base receives 26-54 MHz continuously and has 99 tunable full-function memories, passband tuning, a notch filter, noise blanker, built-in SWR bridge, semi or full CW break-in and a multi-function meter. The IC-575A also has a velvet smooth tuning knob and easy-to-read amber LCD readout with variable backlight.

Four scanning systems are available: band, programmable, mode and memory scan with selectable lock-out (scans 99 memories in five seconds!). All subaudible tones are built-in and the actual subaudible frequency is displayed. Standard repeater splits are built-in and odd splits are programmable.

For packet enthusiasts, the IC-575A in-



corporates DDS (Direct Digital Synthesis). The 10W IC-575A is similar in design to ICOM's compact base station line: the IC-735, IC-275A, IC-275H and IC-475A.

For more information, contact ICOM America, Inc., P.O. Box C-90029, Bellevue, WA 98009-9029; (206) 454-8155.



## 2M all-mode mobile transceiver

Trio-Kenwood Communications introduces an all-new 2M, all-mode mobile transceiver — the TR-751A. Automatic mode selection, many scanning functions, illuminated LCD display, status lights and analog/S & RF meter for easy viewing.

### Features

- 25W high/5W adjustable low
- Automatic mode selection — when the AUTO key is pressed, transceiver mode is automatically selected as follows:  
144 144.1 145.0 145.8 146 148 MHz

CW	USB	FM-	USB	FM
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- Optional, front-panel selectable 38-tone CTCSS encoder.
- Frequency range 142-149 MHz (modifiable to cover 141 - 151 MHz (MARS or CAP permit required).)
- Superior receiver with GaAs FET front end.
- VS-1 voice synthesizer option.
- 10 memory channels plus COM channel store frequency, mode, CTCSS tone, offset. Two channels for "odd split" operation.
- All-mode squelch, noise blanker, RIT.
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- Semi break-in CW with side tone.
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Suggested retail price: \$599.95. For more information, contact Trio-Kenwood Communications, P.O. Box 7065, Compton, CA 90224; (213) 639-9000.

## 10-10 News

(continued from page 38)

down to between 28.3 and 28.5. The QRP Chapter also holds forth in the Los Angeles area, on 28.310, Tuesday at 8 p.m. (local time).

You don't have to be operating QRP (low power, usually 5 watts or less) to check in to the QRP Net. In and around Pueblo, Colorado, the Columbine YL Net meets on 28.490, Friday evenings at 8 p.m. local.

**CHAPTER HEADS:** *If your net has moved down to 28.3-28.5, drop me a note so you can be included in a future column.*

### Feedback

It has been a busy month for me,

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## New Technician Class 'quick course'

Gordon West Radio School announces the availability of their new Technician Class FCC Element 3A home-study theory course. This course contains two stereo, long-play theory cassettes plus a fully illustrated textbook and examination test guide book. The new program reflects the recent changes in the Technician Class examination.

"When the FCC split the Element 3 Technician/General question pool in half, we were delighted. It was our comments to the proposed rulemaking that now allows the Technician Class applicant to study only those questions relevant to Technician Class operating privileges," comments Gordon West, WB6NOA, well-known writer and instructor.

The new Gordon West Technician Class theory "quick course" covers only those 283 questions dealing with Technician Class theory. Out of this pool, 25 questions will be selected for the multiple-choice examination for the new Technician Class license. A sample theory test is also included with this course.

For more information on the \$19.95 Technician Class theory course on cassettes and books, as well as information about other Radio School home study training courses, write Gordon West Radio School, 2414 College Dr., Costa Mesa, CA 92626. Or phone (714) 549-5000.

sending out almost 50 10-10 Information Packages to those of you requesting information about 10-10 and how to get your own 10-10 numbers. I hope they all arrived in good shape and all of you have received your new numbers by this time. Sorry I cannot answer all of your notes and letters personally, but each one is read and appreciated.

If you have not requested a 10-10 Information Package and application for membership, and are interested in learning more about the 10-10 organization, drop me a business-size (#10) SASE with 22¢ postage for the Info Pack.

Also available for an additional 56¢ in stamps is the latest copy of the *10-10 International News*, the official 32-page publication of 10-10. My address is 18130 Bromley St., Tarzana, CA 91356-1701.

### Finally

Let me hear from some of you 10-10 members. Your story and background in Amateur Radio is needed to keep the column going. Drop me a note and I will get in touch with you.

Last, if you are a 10-10 YL/OM Team and have not notified me, please drop me a note. The list of YL/OM Teams continues to grow, and we need you for the list. A QSL card with both names, calls and 10-10 numbers is all that is required. Don't be left out — something may come from this list. Best 73, es cu next month.



# MARS

(continued from page 52)

The ability of MARS stations to get through when everything else fails — particularly on HF — is a lesson that has not been lost on us in the Military Airlift Command. We are the only country in the free world that operates aircraft the size of the C-5A cargo aircraft. Our primary communications link for command and control is HF. Collins 618T-2's in the C-141's and C-130's and the AN/ARC 190's in our C-5's.

We depend on HF to provide that vital communications link between the aircraft and ground control. HF is the centerpiece of the architecture for command and control for the 1,000 aircraft that we own and control in the Military Airlift Command. HF will be in our future through at least the year 2000.

"Why," you might ask, "in a time when we have sophisticated communications, will you build a system that is based on HF?" The answer to that is it may be the only survivable system we have in wartime. If you build a system in peacetime that does not operate in war, indeed you have built a house of cards. While we use satellites and high speed telecommunications and computers, and we massage the command and control data through computers and digital networks, the truth of the matter is that the vital link of that system is plain old HF — whether it's by voice, packet or teletype.

We did not recognize until very late in Grenada that we needed more communications than we had available. And so, the famous story that some of you may have heard on TV where someone used a credit card to call from forward operating locations back home to the home base on a commercial telephone for command and control was not quite the truth.

He called collect — not with a credit card!

For three hours, from Barbados, where he controlled our airlift forces, General Patterson used a collect telephone call through AT&T to McGuire AFB in New Jersey to provide that critical link of command and control we needed until we could get additional HF communications to him during the action in Grenada. Indeed, HF — despite all of the modern communications capabilities we have — is the vital link we have for wartime command and control.

Operation Pacer Bounce hopefully will be completed by this coming December. It is an HF modernization program that has been fraught with delays. But we're getting on with it. A

lot of the equipment is in inventory now. I have seen it; it is magnificent equipment. When it is in place, it will free a lot of HF equipment for redistribution to the affiliate program.

I would like to make the point that the availability of equipment is not the reason most of us are in MARS. Most of us, I am sure, have stations which are well beyond the state of the art that our MARS program equipment is. Yet we do have the capability to redistribute that equipment as it becomes available.

But that's not the reason we belong to MARS. The reason we belong to MARS, I am convinced, is because

---

***If you build a system in peacetime that does not operate in war, indeed you have built a house of cards . . . the vital link of that system is HF.***

---

there is a little bit of red, white and blue in all of us. I certainly believe — and I know you do too — that we're doing something for our country, that we're making a real and obvious contribution.

But I have some cautions for you. There is a continuous pressure to reduce the number of frequencies that are occupied by the civil sector. There is also pressure from the broadcasting media and the military services. The frequencies you and I use are precious and we must never take them for granted, because with the stroke of a pen they can be taken away. Therefore we need to tell our story. We need to tell it loud and clear to everyone who will listen — what the objective of our Military Affiliate Radio System is and what the outcome will be if we do not use the system wisely.

This pressure on the HF spectrum is exactly opposite to what was predicted a number of years ago. We said that satellites would take care of everything. The truth is that we are turning away from satellites for wartime communications and turning more and more to the HF spectrum. The pressure has not become less, it has become greater.

My charge to this group today is to increase the numbers of people in the MARS program. Every member

should get a new member, and we ought to train them well.

When we get members, we ought to make sure we embrace them and bring them into the fold in a friendly sort of way, making sure they understand they are welcome. We're not a friendly lot. Did you ever think about that? We send new members a message and say, "Get on the air and get on a training net." Have you listened to a training net recently? We need to embrace those new members and not only provide them training but provide them with a feeling of belonging. We need to give them the feeling they've joined not just an organization called MARS,

but a fraternity — one in which they'll feel at home.

For those of you in leadership positions, when you get a piece of paper that says you have a new member and s/he hasn't checked into a net, write him/her a letter. Say "Dear John" or "Dear Jane. I notice you haven't checked in. We're a friendly group of people and we want you to be a part of our organization." Because any organization which does not expand, dies. And we must expand, we must improve, we must get better.

Only when we make that demonstration will we be able to command a position which says, "We need more frequencies. We need better equipment. We need advanced technology. We need to get on packet. We need to be preeminent in our TTY. We need to have better training programs and friendlier training programs. We need to have larger attendance on our nets and at our meetings" . . . and so on.

When we do that, we will have taken a big step to improve and progress in the MARS program. Why? The primary reason is so that we can have a skill with a large number of people that is valuable and available in contingency and war. I pray to my God that we never have one. But I also have a great deal of confidence that if we do, MARS will be there when needed.

It's been a pleasure for me to be with you today. It's a pleasure to be able to talk about a program which is so near and dear to my heart. Thirty-seven years an amateur (W4TJN) and 26 years a MARS member perhaps qualifies me to say, "Gee, what a great place to be and what a great hobby we have." Thank you very much.

(—General Overacker's speech condensed and reported by Norm Brooks, AAR9NI/K6FO) □

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# The "Flying Horse" sets the standards!



Continuing a great 66 year tradition, there are 3 new Callbooks for 1987. The North American Callbook, the International Callbook, and the Callbook Supplement bring you accurate up-to-date QSL information on over 900,000 amateurs throughout the world.

The 1987 North American Callbook lists the calls, names, and address information for licensed amateurs in all countries from Canada to Panama including the Caribbean islands, Bermuda, and Greenland plus Hawaii and the U.S. possessions.

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## ADVERTISER'S INDEX

AEA — 25	Ham Radio Outlet — 32, 33	Palomar Engineers — 6, 17,
Alinco Electronics, Inc. — 39	Handi-Tek — 14	29, 43
Amateur Radio School,	Henry Radio — 5, 23	QCWA — 18
KB6MT — 16	ICOM — 64	QEPS — 55
Anne Wright, N6BOP — 40	IIX Equipment — 47	QND Enterprises — 54
Antenna Co. of America —	IMRA — 36	Radio Amateur's
35	International Radio and	Conversation Guide — 30
Antennas, Rudy Plak — 3	Computers, Inc. — 11	Radio Clubs — 41, 42
Antique Radio Classified —	Jim Stevens Antennas — 6	Radio Engineers — 45
58	Jun's Electronics — 15	Radio Store — 57
AVC Innovations, Inc. — 47	Kantronics — 27	rf concepts — 28
Bel-Tek — 48	Kilo-Tec — 37, 59	RLD Research — 20
Butternut Electronics — 10	Listeners & Friends of	Sign-On — 8
C.B. City — 52	Radio Peking — 37	Spider Antenna — 51
Callbook — 60	Long Island DX Bulletin —	Spi-Ro Manufacturing Co.
Courage Center — 22	61	— 17
Current Development Corp.	Lunar Industries, Inc. — 35	Synthetic Textiles, Inc. —
— 26	Maxcom — 55	44
Cushcraft — 53	MFJ — 19	Texas Comm Center — 63
CW Forever Key Co. — 44	Mike Forman — 61	TimeKit — 46
Diamond Systems — 6, 34	Motron Electronics — 29, 38	Van Gorden Engineering —
Engineering Consulting — 31	N.P.S. — 4	2
Etron — 46	N6KW QSL Cards — 2	Vanguard Labs — 24
Fallert's Engraving — 54	NCN Electronics — 48	W5YI-VEC — 4
Glen Martin Engineering —	NH Enterprises — 21	W9INN Antennas — 34
18	Olympic View Graphics —	Webster Associates — 3
Gordon West Radio School —	34	West Coast Swap Sheets
49	P.C. Electronics — 7	— 50
H.J. Theiler Corp. — 31	Pacificon — 26	Wrightapes — 56
		Yaesu — 13



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