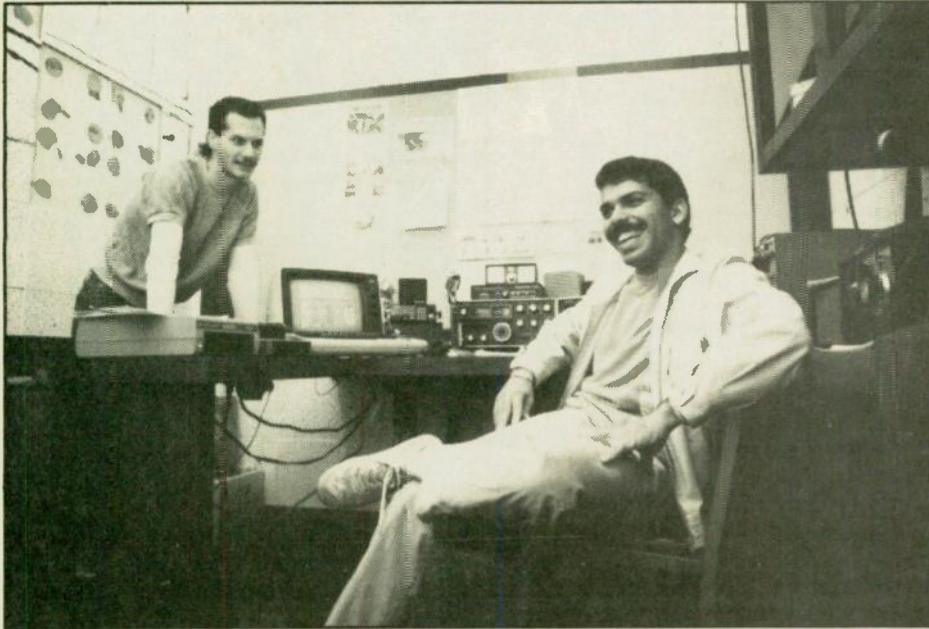


World Radio

Year 18, Issue 8

February 1989 • \$1

MR 01-0013935 LIFE W6CUF
JAMES MAXWELL
PO BOX 473
REDWOOD ESTATES CA 95044



Amjad Obiedat, JY5BA/N6TKH (with moustache), and Jim Bassett, N6QGO.

University Radio

Norm Brooks, K6FO

In our April 1988 issue, we told you about the efforts of Amjad Obiedat, JY5BA/AB6, and his fellow California State University, Sacramento Amateurs, to publicize their amateur radio club at their college campus in Sacramento. Read on for a follow up report on their progress.

Perseverance does pay off. Proof of this is the fact that the amateur radio club at CSUS has a location for its station.

Amjad points out that there are a lot of clubs in a large university, and they all are asking for space to carry on their activities. In this highly competitive atmosphere, getting space for a club is a plum indeed.

To get the ball rolling in the right direction, the ARC members made themselves known to the campus police. They informed the law officers of the assistance the club could provide in communications emergencies, and the police now include the amateur radio operators in their emergency plans.

Law enforcement on campus and those whom it protects were not the only beneficiaries of this act by the Amateurs. On top of the satisfaction gained from lending a hand, these hams now have a place to call home.

A location in the speech/drama building was made available for the amateur station. It's the same spot that was occupied by the former college FM station, KXPR. The antennas placed on the roof of the building are temporary, as the club expects to be given space in the new engineering building when it is built.

The club is just a year old and already has over 25 members. Licensed members find it a godsend, as they can operate from the station while living away from home in a dormitory.

All of the club's equipment was

(please turn to page 3)

ARRL files comments on rewrite

The ARRL filed comments with the FCC on Nov. 29, 1988, in response to the FCC's proposed reorganization of the Amateur Radio rules (PR Docket No. 88-139). Annexed to the League's comments, prepared by Counsel Christopher D. Imlay, was a complete rewrite of the rules developed by a committee of the ARRL Board of Directors.

The League's rewrite was developed over a seven-month period of intensive study by an ARRL working group consisting of Vice President George Wilson, W4OYI, and Directors Steve Mendelsohn, WA2DHF, Marshall Quiat, AG0X, and Rod Stafford, KB6ZV, with detailed support from the ARRL headquarters staff.

In addition, the committee digested countless comments of individual League members. The final document represents the interests of the broadest majority of Amateurs, while protecting the needs of minorities with special interests. It was reviewed and approved by the ARRL Board of Directors by mail vote.

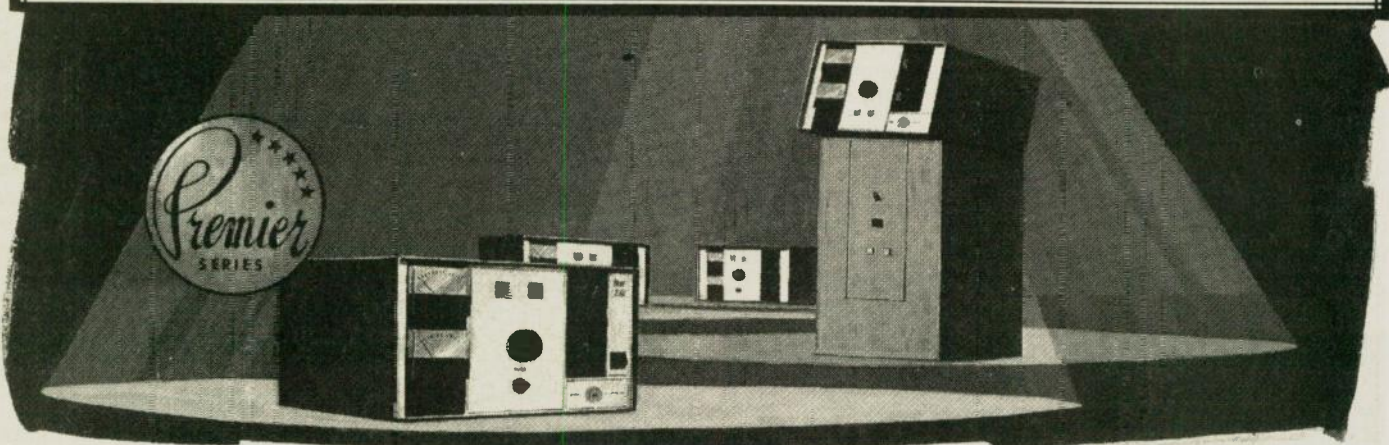
The Committee noted that many of

the comments filed early by individual Amateurs expressed opposition to certain provisions of the FCC's proposed wording. A common thread in these comments was that the rules should allow for "due process of law" rather than FCC administrative sanctions taken without judicial hearings. The ARRL rewrite took these comments into account and strengthened "due-process" provisions of the rules.

The ARRL commended the FCC on its work to reorganize, modernize and clarify Part 97 of the Commission's rules. The FCC had succeeded in reducing the length of the present rules from 30,073 words to 24,397. The League's rewrite further reduced the length to 17,045 words without eliminating necessary substance by further editing, and retained the basic structure of the rules as proposed by the FCC.

To obtain a copy of the League's comments and rewrite of the rules, please send a 9" x 12" SASE with \$1.25 postage to ARRL HQ, 225 Main St., Newington, CT 06111.

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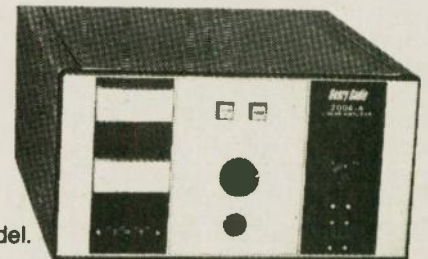
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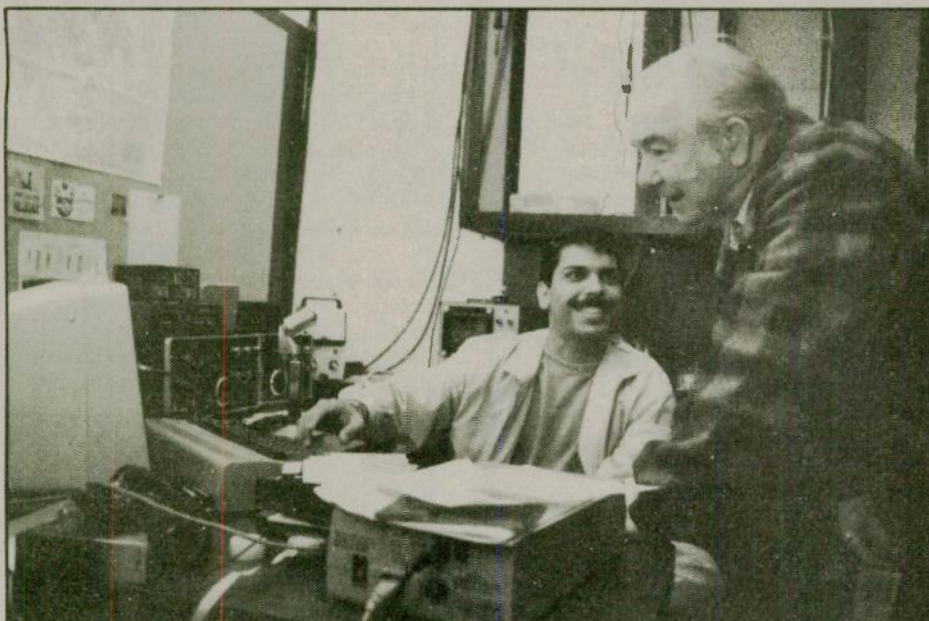
University Radio

(continued from page 1)

donated by other Amateurs, and it is all "pretty good stuff." There is a Tempo 2020, Drake TR4, a Commodore 64 computer with an AEA Packet TNC, a complete VHF 2M station plus miscellaneous test gear, power supplies, etc. A KT-34A antenna is still in the box in which it was given to them, waiting for the opportunity to be put up on the engineering building.

So far, two non-amateur students have obtained their licenses as a result of coaching by the licensed members of the club. Club members plan to carry on this activity into the future.

We here at Worldradio hope that the well-known need to bring more young people into amateur radio will kindle a movement to re-establish stations on the thousands of University campuses around the world. □



Amjad, JY5BA/AB6, and Norm, K6FO, trying out some equipment and looking right at home in the new station.

Share your knowledge with your fellow amateur and Worldradio reader

CONTENTS

FEATURES

- | | |
|--|-------------------------------|
| ARRL files comments on rewrite — 1 | The mystique of grounding — 6 |
| Code speed — 7 | Thanks from Pitcairn — 36 |
| Colorado Amateurs fight restrictions — 3 | University Radio — 1 |
| Musician's dream fulfilled — 18 | What is packet? — 6 |

COLUMNS

- | | |
|------------------------------|-------------------------------------|
| Advertisers' Index — 63 | New Products — 58 |
| Aerials — 52 | Off The Air — 24 |
| Amateur Hi — 23 | Public Service — 20 |
| Amateur Radio Call Signs — 8 | Publisher's Microphone — 4 |
| Code Matters — 49 | QCWA — 39 |
| Contests — 54 | QRP — 50 |
| Digital Bus — 42 | Silent Keys — 17 |
| DX Prediction — 30 | Six Shots! — 44 |
| DX World — 28 | Special Events — 14 |
| FCC Highlights — 8 | Station Appearance — 23 |
| Hamfests — 56 | Subscription, Worldradio — 9 |
| MART Classifieds — 61 | VE Exams — 12 |
| Mobile — 40 | With the Handi-Hams — 27 |

10-10 International News — 47

Colorado amateurs fight restrictions

Friday, July 29 was a dark day for Amateur Radio. In one of the most important cases in Amateur Radio history, two local operators seeking exception to the Boulder County 35' height restriction were handed a devastating negative decision by Federal Court Judge Zita Weinshienk.

David Evans, NQ0I, and Tim Holzheimer, N6DIY — who had originally applied for 125' towers on their one-acre parcels in rural residential Boulder County — have now been denied the right to erect anything taller than 35'. After months of hearings before the Board of Adjustment, Planning Commission, County Commissioners and finally the federal court, the result is a 35' limit except in extraordinary circumstances. County officials have not offered — in fact, have refused to negotiate — on a height for a fixed tower between 35' and the 125' originally requested.

The judge said that in her opinion PRB-1 did not apply to individual amateur operators, but only to the Amateur Radio Service in general. She determined there is not absolute prohibition of Amateur Radio in Boulder (please turn to page 6)

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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 humanitarian uses of Amateur Radio.

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STAFF

Editor and Publisher..... Armond Noble, N6WR
Managing Editor..... Marra McElroy
Assistant Editor..... Christine Toppenberg
Associate Editor..... Norm Brooks, K6FO
Consulting Editor..... Lou Ann Keogh, KB6HP
Advertising Director..... Helen Noble
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PUBLISHER'S MICROPHONE

First, a doff of the cap and a long deep bow in the direction of our latest Super-Boosters (Lifetime Subscribers): Russell Ferland, KA1ERL, Pawtucket, RI; Michael Auten, KA1SHO, Ledyard, CT; Walter Wenzel, KA2RGI, West Babylon, NY; George Jolly, Houston, TX; Jay Reisman, KB6IZ, Marina Del Rey, CA; Paul Chan, NK6V, San Leandro, CA; Dr. John Gauger, KA6WOZ, Long Beach, CA and Douglas Thompson made a gift of one for Curtis Law, WA2PIV, who is with the Coast Guard in Kodiak, AK.

Jim Foster, NN7K, Klamath Falls, OR, sent a clipping from *Coin World* about an item for \$4 from Hall Brothers, Box 771, Morgan, UT 84050. It's 38mm and made of brass. One side is the Send Side and it shows the Morse Code. On the Receive Side, there is a Start and you can trace E I S H or A W J, etc., or T M O or T N D B, etc. It's a cute item.

It reminds me that we've probably messed up hundreds of thousands of hams and would be hams with the old standby E I S H T M O method of starting them out on the code.

What we've ended up with are people

who *count* . . . one dot, two dots, three dots, four dots, five dots. While that may get them to five wpm, it's the route to long-term damage as they try to move to higher speeds. They are still *counting* one dash, two dashes, three dashes . . .

It would be better to run at the beginners a start of C R A N E. Words such as CAR RAN NEAR ARC can be made for drills. Next sequence could well be Z I W U G. Get them hearing the code as letter sounds, not counting elements — harder at the beginning but better in the long run.

We received a letter from a respected Amateur who took us to task for carrying an advertisement for what he called "a very questionable product" in the antenna field.

The complaints we hear about that unit are NEVER from people who actually have one. Next, anyone that doesn't like it can send it back and their money will be refunded.

We don't run the ad because we need the money. Our ad rates are so low that a half page or a full page more or less makes no difference. Since a letter was also sent to K.N. Sterba about the unit, we're going to ask the manufacturer for one and let our

antenna man report on it.

Another letter from Leonard Kaufer, KH0AC, Saipan, asked for more on OSCAR 13. OK, this is a call for articles . . . get writing!

Here's a goody! Back on Aug. 15, 1958, little Novice KN9OCE worked W9KA in Chicago on 40M. Thirty years later, now Extra Class, K9OCE decided to mark the anniversary by setting up a contact on Aug. 15, 1988 on 20M with W9KA, who now lives in Boca Raton, FL. W9KA is 80-years-old.

You may have been hearing lately that RF is bad for you and it shortens life. Well, W9KA was licensed in 1926. WAS #12, DXCC #42, WAZ #697. Back in '58 he had 200 countries. Lots of RF in all those years.

Probably nobody on the face of the earth was more RF than Don Wallace, W6AM, and look how long he lived!

Jo Stringfield, N6NTJ, arranged to have Worldradio dropped to our service hams stationed in Antarctica. Many thanks!

Paul Graziani, WD5BIV, Little Rock, AR and Dave Kline, WJ0Z, Omaha, NE, wrote to thank us for furnishing a copy of Worldradio to all in their Novice classes.

Paul Smolarz, WA2HYY, Rego Park, NY, said that he's been trying to get publicity for Amateur Radio in the small local newspapers for years now, with but negative results. For him and others with similar results, how about penning a big "why not?" letter to the Editor.

C U on 20.

—Armond, N6WR

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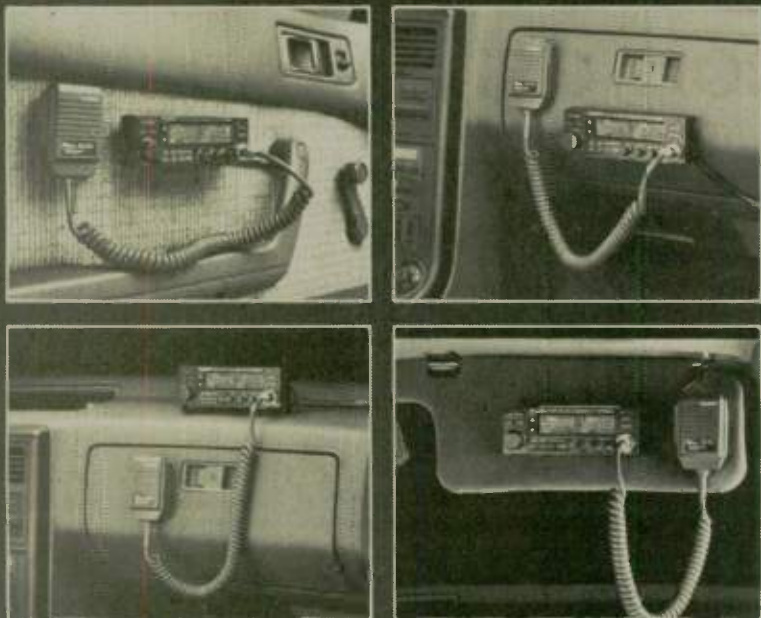
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What is packet?

Helen R. Smith
WOH Disaster Specialist

How many of your chapters have communications groups of Amateur Radio operators? And how many of those groups are involved with the packet radio systems? Do you know what packet radio is?

Packet radio is like a mini-computer/ham radio all rolled into one! It's a wonderful system that sends and receives electronically at amazing speeds — but there's even more!

The packet radio sends, the receiving one relays the message back for verification of accuracy, and the sending radio confirms all in the time it takes to hit the carriage return of a typewriter and have the next line ready to type! It is so fast that those who listen in on radio conversations cannot hear the transmission. They would have to have a modem to "decode" it to understand what was being sent and received.

This, of course, helps solve a problem that we have been trying to deal with for years — that of the use of Amateur Radio operators, and the lack of confidentiality that their system provided.

Another benefit became apparent during the Northern California Floods (DR 290), when we utilized this system. That was the time that Amateur Radio operators needed to spend doing DWI's (Disaster Welfare Inquiry). So often, these generous folks must go to regular jobs or duties, and therefore, cannot spend the hours and hours that we used to demand of them in our communications centers.

Packet messages, we found, could be transmitted to an electronic mailbox system by a sender and picked up later by a receiver. By spending two hours at the communications centers in the morning and two hours in the evening, the packet operators were able to pick up all their messages (DWI's) and send any replies that had been gathered during the day, thus leaving them free for the rest of the time to go on about their

normal business.

We feel that the potential of this communications system is so great that we are encouraging every chapter to investigate their community to see if there are any packet radio operators who would be interested in volunteering for the Red Cross in case of disaster.

If your chapter does have volunteers who are packet radio operators, and they would like to have information regarding how the DWI system was set up during DR 290 — or would just like to share ideas on packet radio and/or DWI systems, please let me know. I will be happy to put them in touch with the wizards who helped develop that system and who are working with the DWI Task Force at WOH to develop the new DWI system. □

The mystique of grounding

JOHN MINKE, N6JM

This Friday afternoon seminar was one of the five presentations that were available to ARRL Convention attendees at 2:30 p.m. Judging by the packed room, it must have been the most popular. Given by Dr. Alan Chandler, K6RFK, vice president of Advanced Electronic Applications (AEA), it was very informative.

Alan explained his reason for choosing this topic. It seems that several years ago, he was involved with 15 other people on the subject of grounding who all gave their opinions on the subject. They were all wrong!

There are five types of grounding: power, lightning, RF, antennas and circuits. Power grounding was most obvious to everyone with the typical color coding of black, white and green wires. The white wire is the neutral wire, the black wire is the "hot" side. The green wire is the equipment ground and the neutral and equipment ground wires brought back to the neutral terminal in the panel.

Lightning grounding is something more of us should be aware of. A typical lightning stroke can be anywhere between 10 and 250kA. Considering that and the inductance of the tower, about 125kV may be induced on the coaxial cable at the base of your tower. Therefore, your coaxial cable (i.e., the shield) should be grounded at

the base, using a barrel-type coaxial connector.

Alan said that there is really no such thing as an RF ground. This can be explained with plain # 12 AWG wire. The wire may make a good ground, but taking into consideration the inductance of the wire, the impedance will increase with an increase in frequency. He also said that the 1/2-wave phasing sections shown in the 1976 ARRL Handbook on page 170 (page 380 in the 1971 book) is incorrect. In addition to connecting the shields together, resistors should be connected between the balanced output and the shield. He didn't know if the later issues had corrected this oversight.

Alan stressed that antennas have two terminals. When connecting the coaxial cable to a common dipole, the shield sees two loads — the other half of the dipole and the shield itself, and that can be anywhere between 20 and 100Ω, depending on the length. □

Colorado amateurs

(continued from page 3)
County.

She said further that the County's 35' limit could be varied in appropriate cases and that provisions in the county's proposed ordinance for taller towers or other supporting structures satisfied her that the proposed ordinance was in compliance with PRB-1.

One of her concluding remarks was that there were many rural areas in Boulder County. She hoped the amateurs with tower aspirations could locate in these areas. She stated that she had no problems with any of the facts of the case as presented by the plaintiffs, but proceeded to rule against them anyway.

The amateurs presented evidence which showed conclusively that the proposed towers would be completely safe, that property values would not be affected, that health factors would not be a concern, and that scenic vistas on the whole would be affected in only a very limited way for a few residents.

All the benefits and positive aspects of Amateur Radio were ignored except the amateur operator's capability for emergency communications. The opinion is that Amateur Radio is only a hobby and that 35' tall antennas are adequate.

Marshall Quiat, AGØX, filed and argued a strong case, supported by extensive documentation. A professional property value comparison was submitted to the court showing that Amateur Radio towers had no adverse

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effect on property values. Marshall has been assisted by Bob Neece, K0KR and Chris Imlay, N3AKD.

A notice of appeal was filed August 8 for an appeal hearing before the 10th Circuit Court of Appeals. Doc and Tim intend to press on, but it will be an uphill battle. The ARRL might file as a co-plaintiff.

This is clearly developing into what will be an extended battle to regain our amateur privileges. There are both short- and long-term funding needs. At present we have an extremely important appeals court case to fund. Later there will be additional attempts by the county to modify their ordinance and continue to unreasonably restrict amateurs. It is also quite possible that we might be required to defend ourselves against suits from dissatisfied neighbors.

Additional funds are now desperately needed. We appeal to ALL amateurs and other interested parties to donate generously to this cause. Without adequate funds, recent court action and local ordinances might signal the demise of the Amateur Radio Service.

If every amateur shared the burden of this immense task by donating \$50, \$100 or more, in installments if necessary, we would be well on our way toward achieving our goals. A minimum of \$30,000 is needed at this time. Contributions may be sent to: Barbara H. McClune, N0BWS, 5338 Spotted Horse Trail, Boulder, CO 80301; (303) 530-1872. Make checks payable to BALDF (Boulder Antenna Legal Defense Fund). □

Thank you for 1988

I want to thank all of the Amateurs in California for the support you have given this past year. Without the help of RACES, ARES, VIP, ARRL, club members and individual hams to the State and local governments, we would not have had the superior communications we enjoyed during our heavy fire season. The Director and staff of the Governor's Office of Emergency Services is most appreciative of your dedication, skill and professionalism.

FOR THE DIRECTOR:

**Jon Madzellan, Chief
Telecommunications Division
Governor's Office of Emergency
Services** □

Let Worldradio know what you do in Amateur Radio; many others will be interested in your experiences.

Code speed

**CHARLENE KNADLE,
WB2HJD**

"Why is it that in the morning, when I'm fresh and a hundred percent 'on,' my code speed is really bad, and late at night, when I'm really tired, I can keep up with the best of them?"

The questioner was talking on a local repeater to a friend who spends his free time teaching potential hams. But when the teacher came back, he responded to other elements of the conversation without answering the question.

The questioner really wanted an answer, and said so. The problem was consistent, and it really bothered him.

"I don't have an answer to that," the teacher admitted. "All I can tell you is that if the sender will break up his transmission into words, giving spaces between them, no matter what speed he sends, it'll be easier for you to copy."

I wonder to how many people this situation applies. Lots of hams have trouble upgrading their licenses, because they can't seem to increase their code speeds enough to pass the test. The problem this questioner identified might hold clues for anyone struggling with the code.

It's been established that code practice is most effective when students use their ears instead of their eyes to identify the letters. Everyone has to find some kind of system for himself (or herself), of translating the visual image of a letter to the audio image, and vice versa. Once having done that, there comes a time when the visual has to be let go, and the audio has to stand for itself. Otherwise, there will be a ceiling to the speed one can achieve.

Do we have to visualize musical notes on a page in order to comprehend a piece of music? Or "see"

words on a page in order to understand a spoken message?

Yet we sometimes lack the faith, or the exposure, to take that leap when it comes to code.

The questioner on the repeater identified himself as a "morning" person. That's when he's at his best. So why was his code speed better at night? Probably because he tried too hard in the morning.

You've heard about the left-brain/right-brain theory, no doubt. It states that the left brain (in right-handed people, who are the majority) is in charge of cognitive thinking, judgment, and conscious learning. The right brain, more connected to the subconscious, is creative, intuitive and undisciplined. It also understands without thought.

Here in the hard-driving northeast, where businessmen consider it important to be able to use their wits to stay on top of the situation, to sell themselves to beat out the competition, left-brain activity is highly developed. Awareness is a carefully-controlled activity. The conscious mind never rests.

Except when the day is done and the worker can finally relax.

Letting down his guard is exactly what the questioner probably did, (please turn to page 11)



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"The Secretary of Defense, acting as the executive Agent of the National Communications System (NCS) ... has requested the FCC to reverse its decision on Docket 87-14 and keep 220-222 MHz for amateur radio use. In its Petition for Reconsideration ... the NCS ... condemns the reallocation Report and Order as inconsistent with the record of facts."

The petition "... notes that the NCS had conducted intense deliberations in regard to the impact that reallocating 220-222 to land mobile use would have on the role of amateur radio as a resource to National Security Emergency Preparedness operations ... It is noted that the need to retain the allocation in the Amateur Radio Service was the reason that NCS had initially filed against the plan ... Since the Commission had unwisely decided to ignore NCS and other commenters in its decision to proceed with the reallocation proposal, the NCS virtually demands the Commission to re-evaluate the action and retain the spectrum under consideration for amateurs as this would best serve the public interest, convenience and necessity." (*Westlink Report*, 11/25/88; *ARRL Letter*, 11/10/88; *W5YI Report*, 11/15/88).

"The FCC has proposed a 1 MHz expansion of the 6M repeater subband by issuing Private Radio Docket 88527 ... Currently, only 52-54 MHz is authorized for repeater operations



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... If approached, the 6M repeater subband would run from 51.0 to 54.0 MHz."

"The expansion was requested by two southern California groups. "... the FCC noted that additional spectrum for repeaters would provide for more flexibility in the band." The Commission also noted "... it is concerned with the impact it might have on those few hams now using 51-52 MHz for other purposes." (*Westlink Report*, 11/25/88; *W5YI Report*, 11/15/88).

"The traditional ... Morse Code is being replaced by the new and highly sophisticated Global Maritime Distress and Safety System which transmits and receives messages automatically" (via satellite). Some amateurs are reported to "... have been looking into the possibility of supporting a no-code ham class similar to that of Canada. A major amateur opposition to a no code ham class is based on a fear of outlaw CBers invading the ham bands." (*Westlink Report*, 11/25/88; *W5YI Report*, 11/15/88).

"A Los Angeles man has been (fined \$300) by the FCC for allegedly submitting a falsified Amateur Radio Service license application ... The application indicated that ... licensees W5YI and WB6NOA, acting as Volunteer Examiners, administered the Novice requirements to ... (him) when in reality they did not ... an FCC employee

recognized one of the signatures on his license application as not being authentic." (*Westlink Report*, 11/25/88; *W5YI Report*, 11/15/88).

"There has been a considerable amount of discussion in amateur circles lately about the illegal freeband operation between 26 and 28 MHz ... It appears the primary equipment being used for this illegal operation is ... (a 10M) amateur transceiver that is peddled nationally by CB shops and truck stops ... It is very easily modified to operate below the 10M band ...

"One amateur (whose Dad is a trucker) advises that truck stops arrange for CB shops to modify the rig for \$25 to freeband operation ... with an extremely simple modification ... (it can) ... be opened up to include full 26-30 MHz coverage ... The FCC recently busted a freebander ... and fined him \$1,000 for transmitting on 27.390 MHz — a frequency reserved for federal agencies." (*W5YI Report*, 11/15/88)

An 82-year-old ex-FCC officer, Gus Howard, W5KM, has filed a petition for rulemaking with the FCC to modify the Basis and Purpose of the amateur rules to include using the Amateur Service to interest students in secondary school curricula, and especially in science and Mathema-
(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 December 1, 1988.

For more information about the call sign assignment in the Amateur Radio Service, see Section 97.51 of the FCC Rules, or write to the FCC, Consumer Assistance Branch, Gettysburg, PA 17326.

Radio District	Group A Am. Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
0	W00Z	KE0ZM	N0JYT	KB0DNE
1	NU1P	KC1MV	N1GDL	KA1SUP
2	WM2L	KE2KJ	N2IUO	KB2GPA
3	NT3A	KD3KP	N3GRH	KA3TVE
4	AB4LX	KM4LB	N4ULP	KC4HSF
5	AA5IZ	KG5PQ	N5NNP	KB5HWC
6	AA6LQ	KJ6OV	N6TUM	KC6AXI
7	WV7L	KF7PO	N7LYP	KB7GER
8	WM8X	KE8VK	N8KDJ	KB8FTC
9	WE9P	KE9NV	N9HZZ	KB9BSQ
North Mariana Is.	AH0H	AH0AE	KH0AL	WH0AAI
Guam	KH2K	AH2CD	KH2DN	WH2ALU
Johnston Is.	AH3B	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Palmyra, Jarvis Is.	AH5A			
Hawaii		AH6JJ	NH6SD	WH6CBB
Kure Is.			KH7AA	
American Samoa	AH8C	AH8AD	KH8AG	WH8AAAX
Wake Wilkes Peale	AH9A	AH9AD	KH9AD	WH9AAH
Alaska		AL7KO	NL7PC	WL7BSS
Virgin Is.	NP2E	KP2BN	NP2CT	WP2AGE
Puerto Rico		KP4PW	WP4SK	WP4IGE

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FCC Highlights

(continued from page 8)
tics." (W5YI Report, 11/15/88).

In October 1988 the FCC modified the General Mobile Radio Service to enhance personal use. Licensing by businesses or organizations is prohibited.

"Anyone 18 and over can obtain a GMRS license and use the service for personal and business communications." The FCC said, "The amateur service is unsuitable for typical GMRS personal communications that involve business matters, such as discussions of purchases." Many amateurs use GMRS (at 460 MHz) for mobile communications with spouses who are not interested in becoming hams." (W5YI Report, 11/15/88).

"DON'T THROW AWAY FCC Form 610Bs that show an expiration date of Aug. 31, 1988. The FCC has elected to extend their expiration until Aug. 31, 1991 . . . The form 610 is used for all amateur license applications and requests for license modifications." (Westlink Report, 1/11/88).

WA6MPG/7 reports, "Seattle area hams have been plagued recently by bootlegging fisherman in the nearby Puget Sound . . . the FCC is working

with the Seattle Harbor Patrol in a joint effort to apprehend them." (Westlink Report, 11/11/88).

"Novice enhancement" should be renamed "Technician Enhancement" based on FCC licensing statistics recently released. "They show that the Technician Class license is the fastest growing of any class in the history of the US Amateur Service. The figures for Oct. 1, 1987 through Sept. 30, 1988 are: Technician + 8.70%, Extra + 6.80%, Advanced + .21%, General - 1.26%, Novice - 3.68%. This provides for an overall growth in the Amateur Service of 1.54% in the past 12 months . . ." (Westlink Report, 11/11/88).

In a letter to all volunteer Examination Coordinators the FCC advised the maximum allowable fee they can collect went up from \$4.56 to \$4.75 effective Jan. 1. The increase authorized is due to a 4.2 percent increase in the Department of Labor Consumer Price Index. "There is no fee charged for prospective Novice class operator licenses." (ARRL Letter, 11/18/88; Westlink Report, 11/25/88; W5YI Report, 11/15/88).

An unlicensed Porter, TX, resident was recently convicted of transmit-

ting obscene, indecent and profane language in the Amateur 2M band. He was convicted of a felony count and sentenced to three years of supervised probation and a \$1000 fine.

In addition, he was restricted from purchasing or using any radio capable of operation on a frequency for which he does not have an FCC-issued license. The investigation was conducted by the FCC Houston Field office, in cooperation with the US Attorney's Office. (ARRL Letter, 11/18/88).

The ARRL has had two "initiatives" before Congress, one of which would have amended the FCC authorization bill to require it to enforce the rules in effect as of August 3, 1988, when the 2M band was still the full 220-225 MHz. The amendment did not pass in the 100th Congress. However, "the second initiative fared much better! This was the Concurrent Resolution offered in the House by Representative Dornan (#317) and in the Senate by Senator Wilson (#127).

"In the closing days of Congress, and with appropriate consultation, Senator Wilson came up with new Section 10: . . . (b) It is the sense of the Congress that - . . . 1. It strongly encourages and supports the Amateur Radio Service and its emergency communications efforts and 2. Government agencies shall take into account the valuable contributions made by amateur radio operators when considering actions affecting the Amateur Radio Service.

"The amendment was accepted, the bill was agreed to in the Senate, the House concurred, and it was signed by President Reagan late Thursday night, November 3, 1988 . . . Section 10 does NOT turn back the clock to August 3, but it COULD become an important building block toward a solution to the 220-222 MHz problem with which amateurs can live." (Westlink Report [W1UED/ARRL] 11/11/88); W5YI Report, 11/15/88).

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46,152	Extra	46,413
98,354	Advanced	98,386
112,989	General	112,954
99,603	Technician	100,176
79,730	Novice	79,034
436,828	Totals	436,963 □

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Code speed

(continued from page 7)

when he received code "as well as the best of them" when he was tired ("as well as the best of them" is a telling phrase; it's an expression that would be used by someone aware of being surrounded by competition). In the morning, with the competitive work-day ahead of him, he wasn't able to turn his amateur-radio time over to his "right brain" or his subconscious mind. It took a full day's onslaught to bring about the fatigue that could break down his carefully-constructed resistance to "letting go" of conscious control.

Very few people can purposely get in touch with their subconscious minds, but I'm told it is a skill that can be learned. It takes time and practice (as an adjunct professor for the State University of New York, teaching freshman composition, I try to overcome my students' resistance to writing by having them keep a journal in which they write "without thinking" for ten minutes each day, seven days a week. It works: when they have to write consciously, they are able to draw on the power to which they've become attuned, and they are surprised at what they begin to accomplish).

Where code is concerned, it helps to give yourself permission to let go of the need to "figure out" each letter. After you've learned the code well and practiced it long, just listen. As you did when you were an infant, you'll pick up this new "language" naturally. At that point, the more you expose yourself to it and the less you "try," the better and faster you'll be at it. □

Code Practice

As of Aug. 1, 1988, on a frequency of 145.670 MHz Code Practice is run 14 hours a day, 7 days a week.

The code is computer generated and operates at 5, 10, 13, 15 and 20 words per minute. Code practice starts at 8 a.m. and runs until 10 p.m. each day, covering about 1,600 square miles of southern Arizona.

Telephonic or repeater (.34-.94) special requests are accepted for a code speed at a specific time, otherwise each speed is run for about four hours. This might augment the radio theory classes and bring about a higher test passing rate on the regular monthly VE exam days. The code exams are getting less than a 50 percent passing rate. □

What ever happened to common sense?

We have a wonderful system here in the Southwest which links about 12 two meter repeaters and is known as the ZIA Connection. The system provides coverage from El Paso, TX across Southern New Mexico, Southern Arizona and into Eastern California.

As one might expect, the system handles a great deal of road emergency type traffic. It is not uncommon to hear a scenario something like this: "This is W7 — on Interstate 10, five miles North of Tucson. Is there anyone out there who can call the Highway Patrol and report a multi-car accident with injuries?" The first reply: "This is K5 — in El Paso. Sorry old man I can't help you." Second reply: "This is K7 — mobile near Tucson. Sorry I can't be of service since I am mobile and not near a phone." Question: Why would anyone tie up the repeater in an emergency situation just to state their inability to help?

Another commonly heard exchange — W7 is going through a high power mountain top repeater and asks, "Is there anyone on frequency who can give me a radio check?" The reply: "This is N7 — and your signal is 20 over S-9 on my S meter." Of course the signal is excellent since the repeater's transmitter is doing quite well with 100W from its 9000 ft. perch. What the poor guy really wants to know is whether he has a full quieting signal on the input and possibly a report on the quality of his audio.

Still another frequently heard exchange goes like this. A QSO drags on for eight minutes on the local repeater. Finally one of the stations decides it is time to identify and says, "This is KA7 — FOR IDENTIFICATION PURPOSES." Why would anyone give his/her call sign other than to identify the station?

Perhaps all of us who teach Novice classes need to devote more time to teaching "Common Ham Sense" along with Ohm's Law. —Steve Godwin, KD6ZZ □

A radio shack revisited

RAYMOND BUCK, KA6VMB

While on a cruise in the Pacific not long ago, I decided to step into the radio shack of this huge passenger liner to see what had changed since 1934, 54 years ago, when I last had a job as "Sparks" on a run into the Mediterranean from San Francisco.

The equipment looked pretty standard. Nothing much new there, except they had a CW circuit to Miami via satellite to their headquarters. In my day we'd relay through five or six ships to reach San Francisco from Venice, Italy.

What was new and startling were the wages and working conditions. Lots of time off with pay — overtime for weekend work and eight hours work five days a week. When I was at sea, most of us were single men and lived on the ship year after year. It was our home. No overtime pay and \$100 per month and 'found'.

I did play with the keyer a little. I don't think those boys do as much CW as we did. They had the keyer set for about 25 wpm. I don't think they were ready for 40 wpm.

Ah well, those were the days of Iron men. Yes sir!

It's nice to know I could sit down and take over with very little briefing. After all, 54 years is not much time to be away, is it? — Lee De Forest Radio Club, Hemet, CA □

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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.

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	Date	City	Contact	Notes
Alaska				Michigan			
Feb 1	Anchorage	KL7HFQ (907) 243-2221	w/i	Feb 4	Saginaw	K8OT (517) 624-9094	
Feb 4	Fairbanks	AL7IF (907) 474-0842	w/i	Feb 4	Saginaw	KO8M (517) 793-9636	w/i OK
Feb 15	Eagle River	KL7HFQ (907) 243-2221	w/i	Feb 5	South Haven	WD8AGC/WD8MEU (616) 637-3905	w/i
Arizona				Feb 10	Grand Rapids	Speed Gray (619) 676-6270	w/i
Feb 4	Tucson	K7OPX (602) 886-7217	w/i OK	Feb 18	Albion	(517) 769-2003	w/i
Feb 11	Prescott	(602) 445-1465	w/i	Feb 26	Dearborn	Stanley Briggs (313) 676-6248	p/r
Feb 11	Russellville	(501) 964-6885	w/i	Minnesota			
California				Feb 4	Duluth	KA0SYN (218) 879-4010	w/i
Feb 4	Burbank	W6JEP (818) 848-9340	w/i OK	Feb 25	Hamel	NA0U (612) 920-7473	p/r pref
Feb 4	Burbank	(805) 484-4461	w/i	Nevada			
Feb 5	Chico	W6KYU (916) 342-1180	p/r pref	Feb 18	Reno	E.J. Silva (702) 827-8450	w/i
Feb 11	Camarillo	N6SR (805) 484-4461		New Jersey			
Feb 11	Los Angeles	N6DYZ (213) 325-3965	p/r; ltd. w/i	Feb 4	Cliffside Park	Robert Alder (201) 348-0575	w/i
Feb 11	San Marcos	(619) 465-EXAM	p/r by 2/1	Feb 5	Paramus	Peter G. Adley Sr. (201) 796-6622	w/i
Feb 18	San Diego	(619) 465-EXAM	p/r by 2/8	Feb 11	Cranford	N2XJ (201) 635-7686	w/i OK
Feb 25	Chula Vista	(619) 465-EXAM	p/r by 2/15	Feb 16	Bellmawr	WA2VQG (609) 546-7710	w/i OK
Mar 4	El Cajon	(619) 465-EXAM	p/r by 2/22	New York			
Colorado				Feb 8	Bethpage	W2QUV (516) 354-6861	w/i OK
Feb 11	Denver	W01JR (303) 366-9689	p/r pref	Feb 11	Greenvale	W2NL (516) 541-2450	w/i OK
Feb 13	Boulder	(303) 530-1872	w/i	Feb 11	Selden	George Sintchek (516) 751-0894	w/i OK
Feb 18	Estes Park	WB0NUL (303) 988-7222; (303) 586-4700	w/i	Feb 15	Lancaster	Matt Gorski (716) 683-1720	p/r
Connecticut				Ohio			
Feb 11	Stamford	Marvin Fleishman (203) 853-4433	w/i	Feb 11	Maumee	Maurice E. Oliver (419) 825-3423	p/r
Florida				Feb 25	Fremont	Kenneth Joseph (419) 332-2473	w/i
Feb 4	Bradenton	Joe Bische (813) 756-4990	w/i	Oklahoma			
Feb 7	New Port Rchy.	AA4FG (813) 849-1224	w/i OK	Feb 16	Tulsa	Wilbert Hunsicker (918) 599-2514	w/i
Feb 11	Crestview	W4DTV (904) 678-7181		Oregon			
Feb 11	Miami	Jose Ramos (305) 264-4732	w/i	Feb 4	Portland	Randy (503) 649-5066	w/i
Feb 18	W. Palm Beach	W4SS (407) 967-1477; KG4U (407) 582-7617	w/i	Pennsylvania			
Georgia				Feb 3	Nazareth	Donald C. Holmes (215) 252-5696	w/i
Feb 11	Augusta	N4MWR (404) 863-9143	w/i	Feb 4	Erie	W3CG (814) 665-9124	w/i OK
Feb 26	Atlanta	Neil Foster (404) 449-3340	w/i	Feb 4	Pittsburgh	Jim Cottrill (412) 563-2379	w/i
Idaho				Feb 20	Perkasie	Stewart Silverstein (215) 584-0775	w/i
Feb 9	Boise	W7JMH (208) 343-9153	w/i	Feb 22	Bridgeville	Helmuth W. Kump (412) 787-3914	p/r
Illinois				Rhode Island			
Feb 11	Dixon	Lavern Johnson (815) 376-5444	w/i	Feb 12	E. Providence	Mike Arminio (508) 699-1077	w/i
Feb 11	Oak Forest	KA9HDN (312) 247-0650	w/i	Texas			
Feb 23	Lombard	(312) 495-0498		Feb 5	Princeton	NW5W (214) 736-2397	w/i
Indiana				Feb 11	Farmers Brnch	Donald Gwynne Jr. (214) 339-7714	w/i
Feb 4	Indianapolis	KA9H (317) 241-1271	p/r	Feb 11	Midland	KT5G (915) 694-9450	
Feb 4	Laporte	Alan Rutz (219) 785-2602	w/i	Feb 14	Houston	Stu Lamkin (713) 777-3345	p/r
Feb 4	South Bend	N19Y (219) 255-4455	w/i OK	Virgin Islands			
Iowa				Feb 11	St. Thomas	Klaus Willems (809) 774-6663	w/i
Feb 26	Davenport	N9OK (309) 786-7203; N0EL (319) 355-8641	w/i	Virginia			
Louisiana				Feb 4	Hampton Roads	N4BDH 487-8611	w/i OK; adv notice
Feb 17	Baton Rouge	KA5YSY (504) 272-5088	w/i	Feb 4	Middletown	Walter Quitter (703) 869-5241	w/i
Maryland				<i>(please turn to page 18)</i>			
Feb 4	College Park	NF3I (301) 963-4008	w/i				
Massachusetts							
Feb 1	Agawam	Jeannette L. Platanitis (413) 786-1463	w/i				
Feb 12	Gloucester	Albert Hamilton (617) 922-3307	w/i				
Feb 15	Cambridge	Nick Altenbernd (617) 437-0320	2-day p/r				
Feb 18	Melrose	NC1V (617) 665-6061	w/i				

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... plus you get a *peak reading* Cross-Needle SWR/Wattmeter, 6-position antenna switch, balun for balanced lines and 1.8-30 MHz coverage...\$239.95



MFJ-986
\$239⁹⁵

MFJ's innovative new Differential-T Tuner™ uses a differential capacitor that makes tuning foolproof and easier than ever. It ends constant re-tuning with broadband coverage and gives you minimum SWR at only *one* setting.

The new MFJ-986 is a rugged no-compromise 3 KW PEP Roller Inductor antenna tuner that covers 1.8-30 MHz continuously, including MARS and all the WARC bands. **The roller inductor lets you tune your SWR down to the absolute minimum** -- something a tapped inductor tuner just can't do.

A 3-digit turns counter plus a spinner knob gives you *precise* inductance control -- so you can quickly return to your favorite frequency.

You get a lighted Cross-Needle meter that not only gives you SWR, forward and reflected power at a glance -- but also gives you a **peak-reading** function! A new directional coupler gives you even more accurate readings over a wider frequency range.

You get a 6-position ceramic antenna switch that lets you select two coax lines and/or random wires (direct or through tuner), balanced line and external dummy load.

A new **current** balun for balanced lines minimizes feedline radiation that causes field pattern distortion, TVI and RF in your shack. Ceramic feedthru insulators for balanced lines withstand high voltages and temperatures.

New Antenna Tuner Technology
MFJ brings you **three innovations** in antenna tuner technology: a new *Differential-T™* circuit simplifies tuning; a new *directional coupler* gives you more accurate SWR, forward and reflected power readings; and a new *current balun* reduces feedline radiation.

Differential-T Tuner™:
A New Twist on a Proven Technology

By replacing the two variable capacitors with a single *differential capacitor* you get a **wide range T-network tuner with only two controls** -- the differential capacitor and a roller inductor.

That's how you get the new MFJ Differential-T Tuner™ that makes tuning easier than ever, gives you minimum SWR at only one setting and has a broadband response that ends constant re-tuning. You'll spend your time QSOing

instead of fooling with your tuner.

The compact 10 1/4 x 4 1/2 x 15 inch cabinet has plenty of room to mount the silver-plated roller inductor away from metal surfaces for maximum Q -- you get high efficiency and more power into your antenna.

The wide spaced air gap differential transmitting capacitor lets you run a full 3 KW PEP -- no worries about arcing.

A New Directional Coupler:
Accurate SWR and Power Reading

MFJ's Cross-Needle SWR/Wattmeter gives you more accurate SWR and power readings over a wider frequency range with no frequency sensitive adjustments.

That's because MFJ's new directional coupler gives you up to an order of magnitude higher directivity and coupling factor than conventional circuits ... plus it gives you a flat frequency response that requires **no** frequency compensation.

The cross-needle meter lets you read forward/reflected power in 2 ranges: 200/50 and 2000/500 watts. The meter lamp is front-panel switched and requires 12 volts.

A switch lets you select peak or average power readings.

A New Current Balun:
Reduces Feedline Radiation

Nearly all commercially built tuners use a "voltage" balun. The "voltage" balun forces the *voltages* to be equal on the two antenna halves. It minimizes unbalanced currents *only* if the antenna is perfectly balanced -- not the case with practical antennas.

The MFJ-986 uses a true **current balun** to force equal *currents* into the two antenna halves -- *even* if your antenna is not perfectly balanced -- so you get minimum unbalanced currents.

The **current** balun gives superior balance over the "voltage" balun.

Minimum unbalanced current reduces field pattern distortion -- which concentrates your power for a stronger

signal -- *plus* it reduces TVI and RF in your shack caused by feedline radiation.

The MFJ-986 Differential-T Tuner™:
Get: absolute minimum SWR

Get the tuner that incorporates the latest innovations by the world's leader in antenna tuner technology.

See your dealer today for the new MFJ-986 Differential-T™ 3 KW Roller Inductor Tuner. Include \$10 shipping/handling if ordering direct.

WHY CHOOSE AN MFJ TUNER?

Hard-earned Reputation: There's just no shortcut. *MFJ* is a name you can trust -- more hams trust MFJ tuners throughout the world than all other tuners combined.

Proven Reliability: *MFJ* has made more tuners for more years than anyone else -- with MFJ tuners you get a highly-developed product with proven reliability.

First-rate Performance: MFJ tuners have earned their reputation for being able to match just about anything -- *anywhere*.

One full year unconditional guarantee: That means we will repair or replace your tuner (at our option) no matter what for a full year.

Continuing Service: MFJ Customer Service Technicians are available to help you keep your MFJ tuner performing flawlessly -- no matter how long you have it -- just call 601-323-5869.

Your very best value: MFJ tuners give you the most for your money. Not only do you get a *proven* tuner at the lowest cost -- you also get a one year *unconditional* guarantee and *continuing* service. That's how MFJ became the world's leading tuner manufacturer -- by giving you your very best value.

Choose your MFJ tuner with confidence! You're getting proven performance and reliability from the most trusted name in antenna tuners. Don't settle for less.

Call or write for a *free* full-line MFJ catalog with all 10 of our tuners and tons of ham radio accessories!

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SPECIAL EVENTS

Emergency Response Institute

The 3rd annual Northern California Emergency Response Institute will be held March 25-26 at the Gilroy Senior Citizens Center in Gilroy.

Presented by the Training Department of the Santa Clara Valley section of the ARRL, the program will include a management and training workshop, ATV workshop, RACES 29 Series seminar, packet workshop, working with the media, stress management, Incident Command System and a steak BBQ.

Registration is \$20, which includes the BBQ dinner. Make checks payable to Emergency Response Institute and send them to Dave Larton, N6JQJ, 766 El Cerrito Way #D, Gilroy, CA 95020-4149. For more information call 408/847-3605. □

Valentine Activity

Once again the Loveland Repeater Association will sponsor a Valentine special event station.

KAO Valentines For Friends will be operating in conjunction with the Loveland Valentine Activities. The station will be in operation from 1500 to 0500 UTC the weekend of Feb. 11th and 12th, with some activity on Feb. 14th from 2300 to 0500 UTC.

The community of Loveland has mailed valentines from the world over for more than 50 years. Each valentine is stamped with a special verse from "Dan Cupid" and cancelled with the Loveland postmark.

Send a SASE for your 8½" x 11" certificate to Michael H. Walker, KAOVFF, 3816 Ash Ave., Loveland, CO 80538.

Last year's effort resulted in 400 contacts with over 200 QSL's sent.

NEW • NEW • NEW

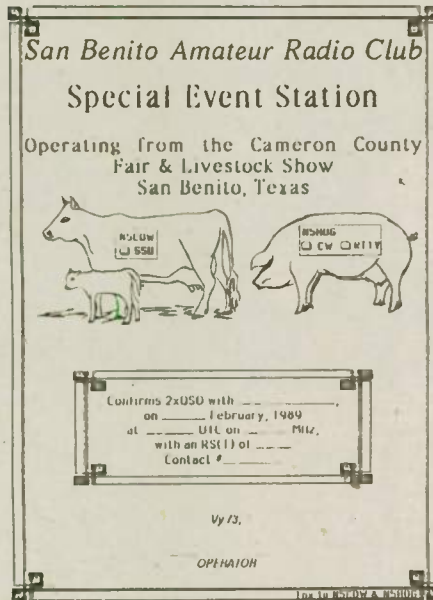
811A's for Collins, \$16.95 ea.
6146B's, \$11.95 ea.
813's, \$23.95 ea.

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Special event station

The San Benito ARC will operate N5COW (SSB) and N5HOG (CW/RTTY) from the Cameron County Fair and Livestock Show in San Benito, TX.

Operation will be from 1800 to 2400 UTC on Feb. 18 and 19. CW operation will be 35 kHz up from band edge on 40, 15, 20, 21.125 and 3.725. RTTY will be on 14.085. SSB operation will be on 28.425, 21.360, 14.315, 7.280 and 3.950 (all frequencies approximate).

For a special certificate for contact, send a SASE (9½ x 11 for unfolded), QSL and contact number to San Benito ARC, Livestock Special Event Station, P.O. Box 1382, San Benito, TX 78586-1382. □

Hamvention expansion underway

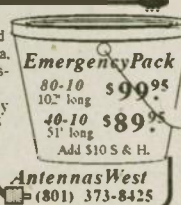
A new wing is under construction at Hara Arena, home of the Dayton ARA's annual Hamvention. According to Johnny Walker, Executive Vice President of the arena, the new wing will add 40,000 sq. ft. to the complex.

QRV Antenna EmergencyPacks

EmergencyPacks contain QRV All Band kink-proof wx-sealed multi-band Dipole-V-Sloper antenna. 70' coax feedline. Quick Launch system. rotproof daron support braid. 52 p Tech Manual. Complete. Ready for Action. One person installs in 15 minutes. Infopack \$1 by 1st class mail.

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One of the oldest ARCs celebrates its 71st year

Throughout 1989, the Houston ARC will operate a special events station. Remember the Club Call W5DPA, this year. Operation will be on any amateur band in any mode the band permits from somewhere in the greater Houston area.

QSL's commemorating contacts will be sent to anyone who works W5DPA (and sends an SASE) in any mode or band, but it's necessary to find HARC to do it. Certificates will be available for anyone who works W5DPA on all bands including WARC bands, regardless of mode.

A plaque will be awarded to any amateur who completes the following requirements — 1. Work W5DPA on all bands including WARC bands. 2. Use seven of the eight modes — SSB, CW, AMTOR, ASCII, BAUDOT, PACKET and FAX or SSTV.

A total of 15 contacts will earn the plaque. This requirement includes the yet to be released (in July) 18 Mhz band.

Event starts 00:01UTC on Jan. 1 and will end at 00:00UTC Dec. 31. □

Center of the world

Yuma ARES members will start operating from the official center of the world on Feb. 25, 1700 UCT, and will continue for eight hours. Operation will be on 28.418 MHz, 21.318 MHz and 7.23 MHz. +/- QRM.

Those interested in obtaining a glossy certificate from the center of the world should send a 9" x 12" SASE, their own QSL card and \$1 to YUMA ARES, c/o Postmaster, Felicity, CA 92283.

Net proceeds will be donated to the local United Way Fund. Anyone traveling on Interstate 8 west of Yuma, may contact the party on 146.74/14 MHz. □

has not been determined at this time.

Completion is expected in plenty of time for the next Hamvention, scheduled for April 28, 29 and 30. When finished, the complex will have a total of six acres under roof. □

Amateur 'microsats'

A consortium of Amateur Radio groups have teamed up with the Center for Aerospace Technology (CAST) at Weber State College (Utah) to construct and launch a new class of sophisticated "mission specific" ultra-compact "microsatellites."

Three AMSAT organizations (AMSAT-NA/North America, AMSAT-LU/Argentina and Brazil's BRMSAT) will be aided by TAPR (Tucson Amateur Packet Radio) and the ARRL in the endeavor.

The four satellites — now under construction in Boulder, Colorado — are only 9" square and weigh only 22 lbs. each. The two AMSAT-NA and AMSAT-LU payloads are PACSATs — store and forward packet radio communications satellites that can blanket the Earth up to eight times a day.

According to Brazil AMSAT President Dr. Junior DeCastro, PY2BJO, BRAMSAT's Project DOVE (Digital Orbiting Voice Encoder) aims to "be the first satellite specifically designed to transmit voice-synthesized messages that implicitly promote peace among nations."

The CAST satellite is an Earth-looking, low-resolution camera. AMSAT-NA has already contracted to launch the four microsats aboard the V-34 Arianspace mission scheduled for June 1989. —W5YI Report □

China stops broadcasts on 7 MHz band

During his goodwill visit to People's Republic of China on July 4-8, Masateru Nakayama, Minister of Posts and Telecommunications, expressed his gratitude to the Minister of Posts and Telecommunications of the People's Republic of China for ordering a stop to commercial broadcasting from China on the 7 MHz amateur band.

—Japan Amateur Radio League □

Don't be bashful!
Write something for
Worldradio

Soviet MIR Operation Update

Amateur Radio operations from the Soviet Space Station Mir have begun. Cosmonauts Vladimir Titov and Musa Manarov are using the call signs U1MIR and U2MIR, respectively. QSOs have been reported between the Soviet spacecraft and Bob McGwier, N4HY, as well as John Biro, K1KSY. Operations commenced on Nov. 19, 1988.

The Mir amateur station consists of a quarter-wave ground plane antenna mounted outside the spacecraft, and a 2W Yaesu FT 290R FM transceiver, donated by UA6HZ. According to the

New license structure in Great Britain

RSGB News Service, GB2RS
C.G. PARTRIDGE, G8AUU

United Kingdom hams will be getting a new amateur license structure and new license documents at the beginning of 1989.

The changes in U.K. Amateur Radio licensing enacted by the Department of Trade and Industry (DTI) are the most encompassing since the end of World War II, and are aimed at modernizing the total structure of the service in Great Britain, while not disrupting any of its traditional values.

Among the key changes are a new single-sheet license validation document which will be renewed annually, and a separate booklet setting out the terms and conditions of the license grant.

Also, there will be only one type of license document to cover all operations including — but not limited to — individual, club, reciprocal and maritime mobile operations; the latter is now included in the standard U.K. amateur license. At the same time, identification requirements have been relaxed and the speed limit for CW identification has been abolished!

The Radio Society of Great Britain will supply a copy of the full text of the new U.K. licensing, along with its own comments, to anyone who supplies a large (European A4 or U.S. #10)

latest information, the operation will be split frequency with the cosmonauts listening on 145.525 MHz (primary) and 145.575 MHz (secondary). U1MIR will transmit on 145.550 MHz.

The frequency selections were made based upon the 2M allocations for Europe, Africa and much of Asia. As noted before, the cosmonauts will only operate U1MIR/U2MIR during crew rest and recreational periods and on weekends.

Ed Kritsky, NT2X, says the cosmonauts are currently monitoring at all times, and have heard a number of stateside operators. —ARRL Letter □

SASE with proper U.K. postage affixed and L1.50 to cover photocopying. Address same to: License Copy, RSGB Headquarters, Lambda House, Cranborne Road, Potters Bar, Hertfordshire, EN6 3JE, UNITED KINGDOM. —Westlink Report □

SWR bridge guide

G.P. Barber, K5GB

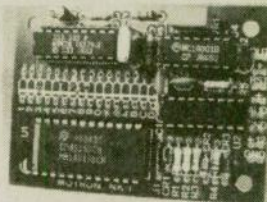
Here is a little table that can be useful to those building an SWR bridge.

VSWR	Reflected	X 100
	Full scale	
1.1	4.8	
1.2	9.1	
1.3	13.1	
1.4	16.7	
1.5	20.0	
2.0	33.3	
3.0	50.0	

—CHARRO, Brownsville, TX □

If you're not subscribing to Worldradio, you're missing a lot of Amateur Radio news.

NET-KALL NK-1 DTMF ALERT DECODER

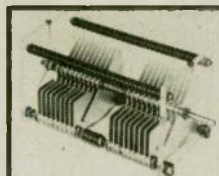


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DAYTON Hamvention®

April 28, 29, 30, 1989

Early Reservation Information

• General Chairman, Bill McNabb, WD8SAY

- Giant 3 day flea market • Exhibits
- License exams • Free bus service
- CW proficiency test • Door prizes

Flea market tickets and grand banquet tickets are limited. Place your reservations early, please.

Flea Market Tickets

A maximum of 3 spaces per person (non-transferable). Tickets (valid all 3 days) will be sold IN ADVANCE ONLY. No spaces sold at gate. Vendors MUST order registration ticket when ordering flea market spaces.

Special Awards

Nominations are requested for 'Radio Amateur of the Year,' 'Special Achievement' and 'Technical Achievement' awards. Contact: Hamvention Awards Chairman, Box 964, Dayton, OH 45401.

License Exams

Novice thru Extra exams scheduled Saturday and Sunday by appointment only. Send FCC form 610 (Aug. 1985 or later) - with requested elements shown at top of form, copy of present license and check for prevailing ARRL rates (payable to ARRL/VEC) to: Exam Registration, 8830 Windbluff Point, Dayton, OH 45458

• Asst. General Chairman, Ed Hillman, NBALN

1989 Deadlines

Award Nominations: March 15

Lodging: April 7

License Exams: March 26

Advance Registration and banquet:

USA - April 4 Canada - March 31

Flea Market Space:

Spaces will be allocated by the Hamvention committee from all orders received prior to February 1. Express Mail NOT be necessary! Notification of space assignment will be mailed by March 15, 1989.

Information

General Information: (513) 433-7720

or, Box 2205, Dayton, OH 45401

Lodging Information: (513) 223-2612

(No Reservations By Phone)

Lodging

Please write to Lodging, Dayton Hamvention, Chamber Plaza, 5th & Main Streets, Dayton, OH 45402 or refer to our 1988 Hamvention program for lodging information which includes a listing of hotel/motels located in the surrounding areas of Dayton. Reservations for the surrounding area will then become the responsibility of the individual.

HAMVENTION is sponsored by the Dayton Amateur Radio Association Inc.

Advance Registration Form

Dayton Hamvention 1989

Reservation Deadline - USA-April 4, Canada-March 31

Flea Market Reservation Deadline: February 1

Enclose check or money order for amount indicated and send a self addressed stamped envelope.

Please Type or Print your Name and Address clearly.

How Many

Admission	_____	@ \$10.00*	\$ _____
(valid all 3 days)			
Grand Banquet	_____	@ \$20.00**	\$ _____
Women's Luncheon			
(Saturday)	_____	@ \$7.00	\$ _____
(Sunday)	_____	@ \$7.00	\$ _____
Flea Market	_____	\$25/1 space	
(Max. 3 spaces)		\$50/2 adjacent	
Admission ticket must		\$150/3 adjacent	\$ _____
be ordered with flea market tickets		Total	\$ _____

* \$12.00 at door ** \$22.00 at door, if available

Name _____

Address _____

City _____ State _____ Zip _____

Make checks

payable to - **Dayton HAMVENTION**

Mail to -

Dayton Hamvention

Box 2205

Dayton, OH 45401

Silent Keys

Jack Ravenscroft, VE3SR

VE3SR was the Ottawa, Canada amateur who was hauled into court by a neighbor who claimed that his operations caused interference to her home entertainment and consumer electronic gear.

Jack spent thousands of dollars and four years fighting the case. With the support of the amateur community, he finally won an appeal that will have an impact on the lives of every Canadian ham.

In October last year he entered an Ottawa area hospital with symptoms that appeared to be those of a stroke, but was soon diagnosed as suffering from a massive brain tumor. Jack slipped into a coma and passed away on October 19.

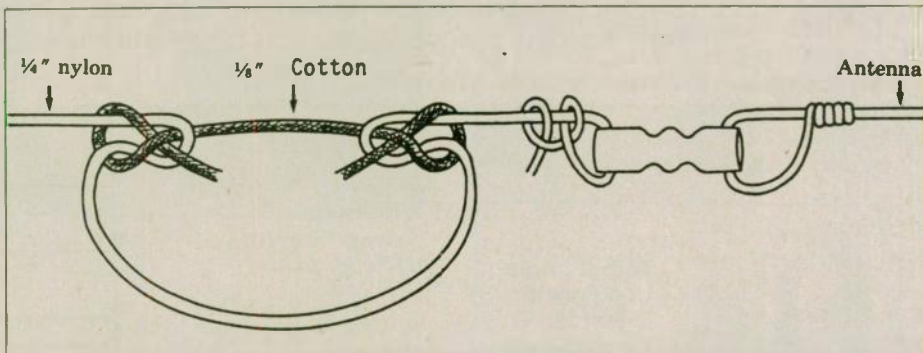
Ironically, the court-ordered RFI suppression on his neighbor's electronic gear was just being completed as Jack fell ill.

—Westlink Report

Create a weak link

John Young, WA8KNE

I have several wire antennas strung between pine trees. These make nice antenna supports but do tend to sway in the wind, breaking the wires and ropes. You can get control of the trees by giving them something they can



Her call is N7JXG

ROBERT OLSON, KZ7S

I guess we should have known she would take us up on it. I mean, that gal is right on top of everything, but you would think she would take it easy on her only daughter and son-in-law.

Sue, KZ7W, and I (Bob, KZ7S) have been in Amateur Radio for a few years now and kind of rubbed it into Addy. Addy is Sue's mom. She lives in Carson City, Nevada and is a retired registered nurse, 76 years young. She lives by herself with Patty the black Lab, and is moving to the Chiloquin, Oregon area. We live in Eugene, Oregon — about 175 miles away.

All we said was if she had an amateur license, it would really be a neat way to talk to her since it isn't too hard to use a 2M repeater to get into the Klamath Falls area and then have someone relay to mom's place. I think our mistake was to say we would buy her the needed equipment to get on the air.

Without saying anything to us, she took a Novice course in Carson City and got her ticket. Then she spent some time studying the Technician manual and on one of her "visits" to us here in Eugene, she and Sue went up to a VE-sponsored test session in

break without causing a problem.

I make a 2' loop in my support ropes and close it with a piece of light cotton line which will break before anything else in my antenna. When the cotton breaks, the loop is opened and the antenna gets 2 feet of slack and will not break.

—Beaches ARS, Jacksonville, FL



Addy Stevens, N7JXG, with her "tin tepee."

Salem and Addy passed her Tech test first try.

Sue and I had to get her a 2M radio, power supply, two antennas (one mag-mount and one base), coax and an external speaker. You know — all the good stuff.

Sue and I both learned a lesson; be careful of what you say and who you say it to.

Now if you are ever in the Klamath Falls/Chiloquin, Oregon area and you have the 146.850 repeater on and hear an N7JXG, that's Addy. Tell her the kids are thinking of her, BUT don't mention anything about the low bands ... we're BROKE.

Cordless Phone - Link

American Lightwave has a fantastic kit that converts your cordless phone into a remote link!! It's legal and please see our article in the March 88 QST.

Phone Link . . .

- Use your rig from the kitchen, garden, garage
- Easy to build, few components, one evening assembly
- Easily connects to your rigs mic and speaker jacks
- No mods to radio or telephone system . . . just plug in
- VOX operation
- Made in the USA with many satisfied customers

KIT PL-A . . . High quality glass epoxy board with doc \$10

KIT PL-B Complete kit - board, parts, doc (less cabinet) \$30

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American-Lightwave introduces the newest in RF. The Water-Load is the most effective, inexpensive Dummy-Load ever devised.

Water-Load . . .

- Uses water - no resistors or messy oil
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- Water-Load assembled \$14.95

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VE exam schedules

ATTN: Teachers — Send us an order for sample issues of *Worldradio*, one for each of your students!

(continued from page 12)

Date	City	Contact	Notes	Date	City	Contact	Notes
Feb 25	Vienna	NK4U (703) 691-0078	w/i	Feb 25	Bremerton	David B. Brooks (206) 876-3120	w/i
Mar 11	Harrisonburg	KB4WOM (703) 867-5428	p/r by 2/3				
W. Virginia				Wisconsin			
Feb 14	Fairmont	Robert Robinson (304) 366-0132	p/r	Feb 4	Racine	NW9P (414) 658-8390	w/i
Washington				Feb 25	Madison	Carol Hoke (608) 836-8485	w/i
Feb 11	Tukwila	Mary Lewis (206) 523-9117	w/i	Feb 26	Tomahawk	Gergory Garner (715) 453-7096	w/i
Feb 18	Spokane	William Mott (509) 467-1208	w/i	Mar 4	Racine	NW9P (414) 658-8390	p/r 30 days prior

The life of the wife of a ham

Donna Steichen
I often think how lucky it is to be the wife of a ham. Just consider the lot of the woman who's got a Sportsman who goes on the lam!

He's off to the golf links, off to the shore, to some other town for a game. He's off to the hunt, or viewing a bunt, or playing until he is lame.

He is just as "away" when deciding to stay to watch the games on TV. For in come friends, out come the snacks, and the den is no place to be!

Now our hams have a shack that's way out in the back, but at home where their money's invested.

When something breaks down, he can be found Where his electrical skills can be tested.

We are free to watch what we like on the tube, and do our work when we please. We can give them a snack in their radio shacks, then clean the rest of the house with ease.

He's here to be near, and to share our home. I can tell him I love him a lot. And sometimes can pet, when he's not on the net. I thank God for the deal I've got!
 —Submitted by **Ronald G. Martin, W6ZF** □

WANTED: newshounds

In the diverse hobby of Amateur Radio, things are happening all the time which could, if put down on paper, make interesting reading. Even just a news tip-off could lead to a worthwhile article.

Just spend a minute and give thought to whether you know of some news. Is your radio club or group do-

ing something you think would be of interest to others? Then submit an article.

If you see something printed about our hobby in a newspaper or elsewhere, take a clipping and put it in the post without delay. Remember to mark the clipping with the name of the newspaper or publication, and the date it appeared. □

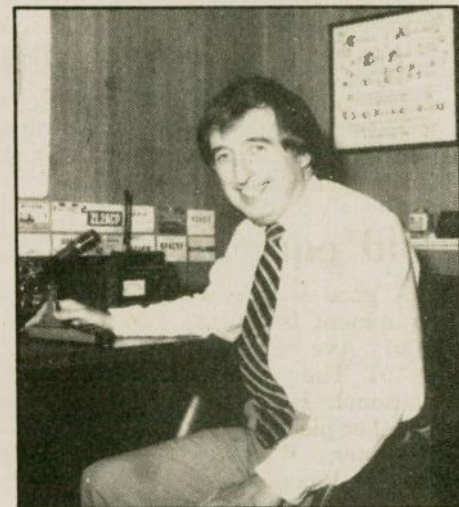
Musician's dream fulfilled

Jane Johnson, K3RIH

Television performer and talented organist **Larry Ferrari, WA2MKI**, fulfilled a dream when he became an Amateur Radio operator in 1977.

He finds it a very satisfying hobby. When he began to study for the FCC test he found he had an affiliation for code because of his musical ability. "The theory didn't come as easy," he laughed.

He carries a small transceiver when he travels and has many friends he contacts around the country. It is a refreshing opportunity to kibitz with friends not as a performer, but as a fellow ham. And while home, he is able



Larry Ferrari, WA2MKI (Rich Mooney photo)

to talk to amateurs around the world from his radio station.

In June, he celebrated his 34th year of affiliation with Channel 6 TV, station WPVI in Philadelphia. What began as a four-week replacement show is now the longest running consecutive organ show in the country, and can be seen at 8 a.m. every Sunday morning. In addition, the Boston-born Ferrari regularly plays on the Captain Noah and Chief Halftown local children's shows.

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& Ferrite.
Ferrite Beads.
Ferrite Rods.**

Free catalog and winding chart on request.

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 Phone: (619) 747-3343

He got his start in show business while in the Army during the Korean conflict. Stationed at Fort Dix in New Jersey, he appeared six times on the Soldier's Parade with celebrity Arlene Francis.

"I was very lucky TV came along when it did," he said. "I play mostly traditional music, but once in awhile I add a pretty popular ballad appropriate for the organ," he said.

Larry also plays frequent benefit concerts for the elderly in nursing homes, for Amateur Radio clubs and for "special children."

"Youngsters with learning and emotional problems respond to music. It seems to break through a barrier. And when that happens, it's wonderful," he said.

The organist practices daily. He is presently using a new type of organ, the Wersi, whose digital capabilities allow amazing musical versatility. When he swings into Spanish arias he creates such toe-tapping excitement that one expects a matador, red cape and bull to appear.

At a recent concert he launched into a sultry wailing rendition of "Stormy Weather," complete with haunting whistler and special effects. He backed the song with a screaming wind and pelting rain sound effects and the audience literally shivered from the storm.

Does he ever forget a piece of music? "Yes," he laughed, "and when I do, I just improvise. I love people and wouldn't want to be doing anything else. And that's what makes Amateur Radio such a great delight for me." □

Old equipment?

A good source of manuals for old equipment is Hi-Inc., P.O. Box 864, 1601 Ave. D, Council Bluffs, IA 51501. They carry manuals for most National, Hallicrafter, Hammerlund, or other pieces of equipment. —David Knepper, W3BJZ; AM Press/Exchange, Woodlawn, TN □

ATTENTION!!!!

ARRL Outgoing QSL Service rates went up.

Effective Feb. 1, QSL cards are shipped over seas for \$2 per pound. Packages of 10 cards or under will continue to be distributed for \$1.

This is the first rate change since the service started in 1976! □

People reach people
through Worldradio

A real ham

How can you spot a real ham? The following are the telltale signs:

1) A real ham will take his absolutely mint condition HT-32B to a hamfest and try to sell it for "\$248 firm." He will then sell this same transmitter for \$18.75 to the 12-year-old neighbor because that is all the kid can afford. He will also throw in an expensive coaxial relay at no charge.

2) A real ham is incapable of throwing away a working meter movement, whether he will ever use it or not.

3) A real ham is slowly collecting parts for at least four projects, one of which has already appeared in the "25 Years Ago" column in QST.

4) A real ham can pick out a BY prefix that is S-1 from underneath six state-side signals running S-9+20dB.

5) A real ham knows that antennas erected on calm days and during daylight hours will never perform as well as those erected in the dark and during a blizzard.

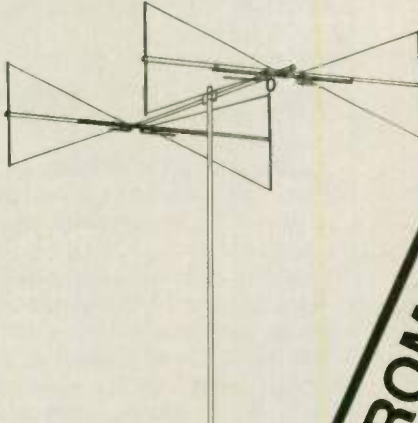
6) A real ham wishes that his tower was at least 10 feet taller.

7) Given a choice between Heard Island and Waikiki Beach for a vacation, the real ham will choose Heard Island. He will not understand why other people think this is peculiar!

— Chicago-FM Club, IL □

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PUBLIC SERVICE

SWL wants license

One morning in March, Vern McKim, WA6PVH, became ill while driving to work. He managed to get his car off the freeway and used his ham radio to call for assistance.

A SWL who was monitoring at the time heard Vern give his home phone number with the request that someone call his wife to let her know what was happening. The SWL not only notified Ruth of the situation, he went to the hospital with her and also assisted her in getting Vern's car home.

A postscript to this story is that the SWL was so frustrated in not being able to talk on the radio during the emergency that he is now studying code in order to qualify for his ham license!

—Antelope Valley ARC, Lancaster, CA □

2M gets help fast in remote area

Dennis Pekrul, VE7CXN

On Saturday, February 13, Jack Trippell, VE7DZO, and myself left the municipality of Port Alice to check on equipment repairs needed on logging equipment of Western Forest Co. out in the bush on the Mahatta River main road.

On returning home for the day, we were flagged down by another resident of the area. He told us that a fuel oil tanker had left the road and that driver and passenger were badly injured and that they were with them.

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Jack tried using his company radio, but due to the area we were in, the complete instructions could not be understood. So we used our 2M radio and called on the VE7RNI repeater. We raised Walter Tansky, VE7APR, in Sointula. We told him of the details and asked him to contact the Royal Canadian Mounted Police (RCMP) in Port Alice.

It was suggested to the RCMP that the water taxi out of Coal Harbour be dispatched to Mahatta River to transport the injured to Port Alice.

The patients were met at Jeune Landing Wharf by the Provincial Ambulance and transported to a hospital.

Due to the remoteness of the area, the time delay for the injured would have been a couple of extra hours had we not had the use of Amateur Radio!

The Volunteer —

A valuable human resource

R. "MITCH" MILLER, N6OAA
former Hemet, CA chief of police

Webster defines resource as "... something one turns to in the absence of the usual means or source of supply. Resource ... appl(ies) to anything one falls back upon ..." (*Websters Seventh New Collegiate Dictionary*).

One of the most precious and valuable resources on earth is the human being.

As much as some of us would like to believe that we don't need anybody else, it would be virtually impossible to survive without others. We are dependent upon the services of others at birth, we are dependent upon others when we get old and feeble and we are dependent upon others all of the time between. Without the services of others, for example, we wouldn't be

able to read this writing, we wouldn't have the paper it is written on, we wouldn't be able to write — I could go on ad infinitum with examples.

Most of what we need and obtain to sustain us in this life, we have to pay for, work for or in some way earn.

Many human beings give freely of themselves, of their own free will, in order to provide some of the goods and services to others when others may not otherwise have the resources to fall back upon. Some examples: volunteer nurses, volunteers who assist the elderly, volunteers who provide general community service, volunteer policemen, volunteer firemen, etc.

Volunteer services often can mean the difference between life and death. People who volunteer their time, service and talents are commendable people whose contribution in some way or another makes this a better world in which to live.


Not to detract from any other group of volunteers, my purpose is to point out the value of one particular group — Amateur Radio operators.

I believe that, in general terms, society as a whole doesn't really know much about the several hundred thousand operators throughout the world. Some are heads of state, Senators, doctors, lawyers and just common folks. They come from all walks of life and have varied and diverse talents, backgrounds and educational levels.

They are, however, tied together with one common thread — they all enjoy their hobby of communicating by radio. Some do it through orbiting satellites, some by use of Morse Code, some by digital means, and others with just two-way radios. Some spend thousands of dollars to enhance their equipment and capabilities, others do not.

Amateur Radio operators are proud of the fact that they hold a license — they introduce themselves as well as fellow hams by their call sign, they sign letters with their call signs, they include them on correspondence and even put them on business cards.

Within this large community of operators, there are various specialized groups of communications providers. One such group is called RACES, which is an acronym for Radio Amateur Civil Emergency Services. The purpose of this group is to provide radio communications to local and state preparedness agencies during periods of local, regional or national Civil emergencies. RACES operates under the auspices of the Federal Emergency Management Agency, and are the only group of (please turn to page 22) *



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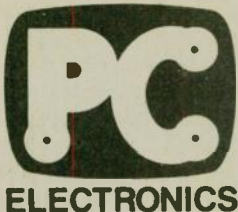
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Just plug in your camera, VCR, camcorder, etc. composite video and audio (10 pin jack on front or phono jacks on back), 70cm antenna, 12 to 14 Vdc, and you are ready to transmit live action color or black and white pictures and sound to other amateurs. Sensitive downconverter tunes the whole 420-450 MHz band down to input to your TV set on channel 3. Specify 439.25, 434.0, or 426.25 MHz transmit frequency. Extra transmit crystal add \$15.

*Transmitting equipment sold only to licensed radio amateurs verified in the Callbook for legal purposes. If newly licensed or upgraded, send copy of license. Receiving downconv. available to all starting @\$49 (TV-C2G).

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Any Tech class or higher amateur can get on 70cm, novices now on 23cm ATV. Any video camera, camcorder, VCR or computer with a composite video output can be plugged into the front panel 10 pin VHS jack or rear panel phono jacks for both audio & video.

DX with TC70-1s and KLM 440-27 antennas line of sight and snow free is about 22 miles, 7 miles with the 440-6X normally used for portable uses like parades, races, search & rescue, damage assessment, etc. For greater DX or punching thru obstacles add either the ATV compatible 15 or 50 watt amplifiers listed below.

The TC70-1 has full bandwidth for color & sound, like broadcast. You can show the shack, home video tapes, computer programs, repeat SSTV, weather radar, or even Space Shuttle video if you have a home satellite receiver. See the ARRL Handbook chapt. 20 & 7 for more info & Repeater Directory for local ATV repeaters.

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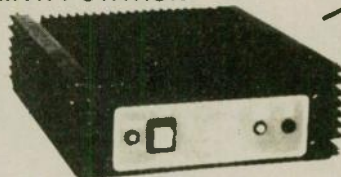
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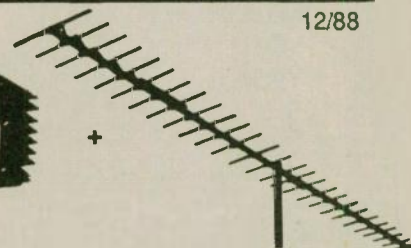


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Public Service

(continued from page 20)

Amateurs that would be allowed to operate their equipment in the event the President invokes his War Emergency Powers.

Hemet and the surrounding area is fortunate to have a cadre of some 75 such RACES volunteers, among whom are three pilots who have volunteered their services to fly for aerial surveillance/damage assessment providing a communications platform in the sky should that be needed.

The value to the community of a group of radio operators such as RACES cannot be over-emphasized. They very well could be, and on many occasions have been, the lifeline into and out of areas which have been struck by flood, fire, earthquake or other disasters. That ham operator that is your neighbor, who has that big ugly antenna may end up being your salvation. But for him/her, your neighborhood could be left to perish.

The next time you see that big ugly antenna, think of it as something other than offensive. Be glad it is there — you may need it.


If you would like to be a member of this elite group of citizens, contact one of them. They will have or will get for you all information you need to join.

In the event of a major, wide-spread disaster, whether it be natural or man-made, your government — local, state or federal, will not be able to do all that needs to be done. The government and your fellow human beings will need you — consider being a volunteer in your field.

—Submitted by Stanly E. Harter, KH6GBX, Amateur Radio Service Coordinator, Governor's Office of Emergency Services, California □

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Reporting accidents

Here is a checklist on how to report accidents and other incidents to the Highway Patrol or other law enforcement agencies.

Location: 1) If a freeway, confirm which freeway by comparing name and route number; 2) distance and direction from crossroad or major landmark; 3) direction of travel and lanes involved if blocked.

Injuries: Is an ambulance needed? Is anyone pinned inside a vehicle?

Roadway condition: If blocked, can vehicles be moved? Is there spillage? If so, is it fuel or load?

When reporting other incidents by radio, here are things to look for when giving a vehicle or suspect description.

1) color and size of vehicle, if make and model are unknown; 2) location — as specific as possible; 3) (for moving suspect or vehicle) time frame, direction of travel and can you still observe the vehicle or suspect from a safe location? (Tnx Lolly Craig, CHP dispatcher, and Kern County-Central Valley ARC Communicator) —Stan Harter, KH6GBX □

Not just talk

Jim Lundberg, KC3HJ, had just returned home from Two Rivers ARC's annual picnic in McKeesport's Renziehausen Park (Pennsylvania), when he got the call:

Amateur Radio operators were needed by the Red Cross to help with communications during the evacua-

tion of 700 people after a 16-car train derailment.

Lundberg and about nine other club members set up a communications network that operated through the next afternoon.

Members of the Two Rivers club, based in McKeesport, and about 13 other Amateur Radio operators helped relay messages for the Red Cross and Salvation Army concerning evacuation sites, supplies and the status of work to put cars carrying hazardous chemicals back on the track.

"A lot of people think all we do is talk to other operators across the country and around the world," said Bob Ferrey, N3DOK, public information officer for the Western Pennsylvania Amateur Radio Association, to which Two Rivers belongs.

"But we do more than that. We're glad to help out in emergencies like this."

— Pittsburgh Press; submitted by Dave Van Der Weele, N3CRN □

Walk America 1988

Guice Johnson, WA4LHO

For the second year, the Charlotte ARS (CARS) was asked to furnish communications for the March of Dimes Walk America in Charlotte County, Florida. Twenty-five amateurs answered the call and volunteered their time and equipment on April 23.

The 12-mile route started and ended in Gilchrist Park in Punta Gorda. Because of the large number of walkers, we had four "sag wagons" or "poop-out vans." Freda Begeal, N4OSK; Phyllis Davis, KA1JC; Toni Commercio, N4QOD; and Nelson Calkins, N8AYB, did an outstanding job of picking up the tired, lame and blistered.

The route communicators were Lew North, W4BX; Dick Moody, KC4K; Warren Butler, WB9LMQ; Bill Huff, WZ4Q; Mel Jerkins, W4STI; Margie Johnson, N4SMJ; Jim Hope, AA4RV; Elmer Davis, N1BJX; Paul London, KI4XZ; Fred Sisson, AA4ZN; Bob Webb, K9HBJ; Sam Curry, N4BXM; Jim Weir, AB4HK; Charles Zimmerman, WD4HPJ; John Setcliffe, KL7-JV; Joe Kamen, WU4X; Bob Parsons, VE3ABA; and Bruno Paras, N4-EAR. The net controls were Arie Cook, K4AI, and Guice W. Johnson, WA4LHO. The project was coordinated by Guice.

Many organizations, including CARS, received awards for their assistance. The fact that over \$46,000 was raised to help prevent birth defects made it all worthwhile. □



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STATION APPEARANCE

February
Winner

Leon Rosenthal
W6VNY

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to "Station Appearance." Entries are judged
on neatness and accessibility, not monetary
value.

Leon Rosenthal, W6VNY, of San Diego is this month's winner. Leon has been hamming actively since 1946, mostly on CW. Early last year he became interested in AMTOR, and has found that he enjoys that as much as "pounding brass."

Following is a description of Leon's setup:

The station is capable of all modes of operation — CW, SSB, AM, AMTOR (FEC and ARQ), FM and RTTY. Due to community restrictions he has installed a Hustler ground mounted five band vertical antenna system.

HF rigs are Drake Twins, 2M system is an IC-27H ICOM. A Siemens teleprinter is in parallel with the computer for RTTY and can be used separately or run simultaneously. The TNC is a PK-232 plus a homebrew TNC for the 2M operation. Receiver at the top is a general coverage. The computer is a H-89 Heath and the printer above it is an MPI. □



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!

Don Raduziner, WB6DD, of Simi, CA, is this month's winner. His story is a real "blast" (SORRY!).

The 40/80M trap dipole I made worked so well that I told my old friend Fred about it. Fred began making the traps with gusto. They were wound using 235 turns of No. 18 Ga. enameled wire on a 14" long piece of 1/2" PVC tubing with PVC end caps on each end.

Proud of his workmanship, Fred showed off the traps to friends at work. As Fred left work that evening, he momentarily placed the traps on the rooftop while getting into his car, forgot they were there, and drove home. He arrived home but the traps were nowhere in sight. He looked

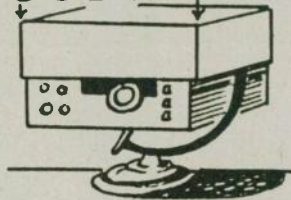
everywhere, even backtracking his steps to his office. Fred was be-

wildered.

He arrived back at work the next day to find police and bomb disposal personnel everywhere. The traps had been found in the back parking lot and were thought to be pipe bombs. The bomb squad quickly placed them into a special container and BOOM!, sent Fred's traps to the big resonance in the sky.

Well, old Fred wasn't discouraged, he's busy making more traps and has earned himself a new nickname. We now call him simply "BOOM BOOM"! □

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80 meters	3.545	3.845
160 meters	1.845	1.845

73, WD9IIX



Homebrewing is where the heart is

I have been a licensed amateur for 1½ years, but had never explored the fascinating aspect of our hobby that is rumored to be extinct — homebrewing. I had dreamed of someday building and operating my own gear, but found it difficult to take that proverbial “first step.”

After selling my solid state rig to relieve a financial burden, I had reason to start homebrewing. The June 1988 edition of *CQ Magazine* provided the idea for my first project. The QRP column, written by Adrian Weiss, WØRSP, was titled “Your First Homebrew QRP Rig — The Twofer.” Instantly I knew I had found what I needed to begin making my dream materialize.

After several weeks of hunting for and ordering parts, discussing construction techniques with other amateurs and placing a call to WØRSP (who was only too glad to answer my queries), I began to assemble my rig. Although I had little construction experience and no test equipment, I was full of ambition.

One month and three attempts later, I sat alone in my shack, dumbfounded. I had followed every procedure to the letter, triple-checked all connections, and each time ended up with a dead circuit. My dream was quickly being replaced with frustration and hopelessness. I was beginning to believe those who insisted homebrewing was a lost art.

Deciding to give one last effort to my project, I contacted Terry Tolley at the radio shop where I work. Terry, a former Amateur, listened patiently as I explained my dilemma. He agreed to troubleshoot the rig on his own time with the impressive array of equipment at the shop.

Several days passed before I contacted Terry again, and to my delight he had not only solved the puzzle but corrected my mistakes. One wrong resistor value (my fault) and a backward transistor (mistake in the article) were the only problems. To say I was ecstatic would be an understatement; hard to believe I wasn't as stupid as I thought!

It took several days before all con-

nections to my borrowed Heathkit HR-1680 receiver were completed, and my station was ready for operation. I fired up the transmitter and instantly noticed that my oscillator was so strong it completely covered up all received signals on my operating frequency. Mounting the rig in an aluminum box didn't help, so I came up with an interesting but workable solution.

To transmit, I would place the T-R switch in the transmit position, turn the RF and AF gains almost completely down on the receiver, and commence. The real trick was the transition from transmit to receive: place the T-R switch in receive, turn the RF and AF gains up, lay my finger across the crystal leads to stop the oscillation, and turn off the transmitter power supply — all before missing a reply! Not a recommended method, obviously.

Nevertheless, on Nov. 2, 1988 at 0030 UTC, I pounded out the first CQ from my new transmitter on 7105 MHz. Using the aforementioned procedure, I rotated the RF gain clockwise and my ears were full of the sweetest sound: my own call returning to me! I nearly fell off my chair grabbing pencil and paper, as I wasn't expecting a reply on my first CQ!

The call N7CY filled my shack. I copied “RST is 599, and name is Dick.” When he started to give his QTH, I silently prayed, “Lord, please don't let the band drop out now.” I almost passed out when I heard “. . . QTH is Seattle, WA!” I knew then that good communication was possible with only 2W output and a dipole at 25 ft.

Dick and I chatted for 15 minutes, until I had to go. After I signed clear, I sat back in my chair and for the first time felt I knew what being an Amateur was all about.

The weeks following brought several other contacts, as well as a change in the switching arrangement to effect a smoother operation. The thrill of Amateur Radio has never been stronger, and I am continuing to have a ball with my homebrew QRP rig.

I am writing, not with the intent of parading my own efforts, but to share my frustrations, failures and successes as an offering of support to those who may be in the dilemma I once was. Moral of story: persevere and pursue. Believe me, homebrewing is alive and well, and to me the rewards are immeasurable.

Thanks to WØRSP, WB7UMI, WB6LOA, KA7UND, KC8PJ, Terry Tolley, Richard Fergusson, Keith Adams, Rick Williams and Doug Cardoza for their help and support — you

guys are tops!
BRUCE D. VAUGHT, N7JYJ
Glendale, AZ

‘WARC-500’ award?

We will soon be permitted the use of the 18 MHz band, so now would be a good time to consider something like a certificate type of award for operations in the WARC bands (10, 18 and 24.5 MHz).

Perhaps we could have a “WARC-500” award for proof of 100 contacts using CW on each of the three bands, plus 100 contacts using radiotelephone on each of the 18 and 24.5 MHz bands. Each contact would have to be with a different station, with no restrictions on distance between your own and the other station.

From the first conception of radio as a means of communicating, commercial interests have been chipping away at the ham bands. It is very difficult now for industry and commerce to obtain any more space in the electromagnetic spectrum which is not already assigned. Thus, it is vital that we use and encourage use of all our bands.

ROBERT STRACK, K6CNB
Covina, California

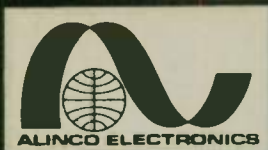
Interest in code leads to Amateur Radio

My interest in code probably goes back to the mid-'20s. At that time I had a desire to become a telegraph operator for the railroad, and I learned the Morse Code fairly well.

After purchasing a telegraph “sounder and key,” the station agent at Joy, Illinois and I would study the code after the “dolly” left in the evening. But the problem was, I had never become proficient enough to master the code. It is one thing to be able to transmit the code, but receiving it was a different ballgame.

Actually, it wasn't until World War II came along that I began studying International Morse Code. The unit I was assigned to during the war needed a radio operator for a tank, and I was sent to a radio school in Honolulu, Hawaii to learn the code. After completing the course, I applied for a transfer to the Signal Corps to be one of the instructors at the school and was accepted.

I apparently became proficient enough as my Army classification was “A High Speed Radio Operator.” After serving approximately five months as a radio operator on a ship, USAT *Kilauea*, I was discharged from



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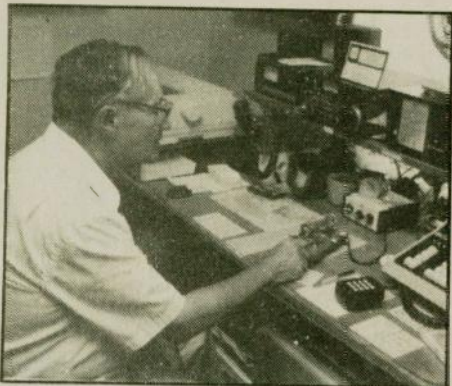
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Off the Air

(continued from page 24)



Ivan Holmes, N0DJF, at his station

the service.

It wasn't until 1981 that I became interested in Amateur Radio, and after passing certain tests I received my Amateur Radio license.

IVAN W. HOLMES, N0DJF
Independence, Missouri

Amateur has fun with IBM PC database

Three years ago I purchased an IBM PC clone. After buying this thing with the idea that something worthwhile could be done with it, I decided that I had better conjure up something grand. So I put my logbooks on a database. Now these are the cumulative logs from almost 32 years of hamming, from three different call areas and six different calls.

After putting all of this information into a database (dBase III), it only seemed logical to look at the information statistically. The results are somewhat interesting (I think), and certainly show my activities over the years. Of course, this only shows a part of the available information.

During my years as a ham, I have been predominantly a DXer but I have also been involved in traffic handling, ragchewing, RTTY and contesting. It was fun entering the data, as it brought back many memories from over the years, since a log tends also to be a diary.

It is nice to now be able to query the database and find out if and when I last chatted with someone. For instance, I was listening on 20M CW a couple of months back and heard a G3 station. I looked him up in the database and sure enough, I last worked him in November of 1956. Of course, I called him and told him of our last QSO. He even had my old QSL card, and I immediately sent him

a new one to go with it.

After completing the data entry, I was telling a local ham friend about it and we got to talking about our old calls. He told me he had gotten his ticket about the same time I got mine, (January 1956) and was also active on 40M CW. So I looked him up in the log and sure enough, there he was. Thirty-one years ago and a QSL card to boot.

Now for some data:

22480	Total QSO's	11726
11367	CW QSO's	6195
5319	SSB	2936
3107	AM	2825
628	RTTY	266
59	FM	57
4528	QSL's	734

The data is entered chronologically and indexed by call to expedite call searches, and by prefix to get DXCC information. To look up someone, I only have to do a FIND "CALL," and less than a second later it is displayed with each contact in order. I know I am missing at least one contest with about 600 QSO's, but over all it is

quite complete and accurate.

It took about two months (180 hours) working nights to enter all the data, but it was sure worth the effort. I have printed it out and it makes an impressive stack of very readable log pages (388). Making out QSL's and answering them is greatly simplified, especially contest QSO's.

It currently occupies 950K of space on my hard drive, and the associated

Stateside	10754	DX QSO's
Stateside	7172	DX
Stateside	2383	DX
Stateside	282	DX
Stateside	362	DX
Stateside	2	DX
Stateside	3794	DX

index files take up another 600K. By the way, I still keep a paper log and I BACKUP the database about every three months.

Overall, the project has been worth the effort and I will continue to keep it updated.

DEAN NORRIS, K7NO
Chandler, Arizona

Progress has pitfalls

I am an OM, age 75, and am an old retired railroad brasspounder. I came up in the days when all the communications on the rails were basically by the old Morse telegraph, and I loved that era. We had some real good Morse men in those days, and they were proud of the old Morse telegraph. We were very accurate and fast.

Now the rails have all gone to computers, and everything is punched into a giant computer, through a microwave relay system. All the records are

in this computer — the payroll, billing and various other services. Even the car control records are punched into this big giant.

When the computer is down, the business practically shuts down on the big rail systems until those skilled technicians get into the bowels of this big giant and correct a little transistor that has failed to perform.

I guess this is progress. Anyway, it is surely here.

MARION O. CATREN, WB0VIB
Stafford, Kansas

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If you flunked this code test, it cost you money! At the Miami Hamcation, Gordon West tied a code player into a string of lights surrounding his Gordon West Radio School banner. The lights would blink in Morse code. A 13 wpm Morse code message could be heard audibly with the lights blinking away. The message was sent over and over again on an endless loop tape cassette. What the message said was "... If you can read this, see me for a \$50 bill. ..." Apparently no ham took the time to read it! Gordon still has his \$50 bill.

The next time you hear a CW message at a hamfest, take time to read it. Gordon says he is going to have similar COPY FOR CASH messages at other hamfests. And if you can't read 13 wpm, brush up on your CW.

— AUTO-CALL, Falls Church, VA



Several years ago there was a story on the news featuring a club which caught my attention to the point that I decided to become a member. It was called the Procrastinator's Club. Whether or not it actually still exists I am not sure, but they were great. They had Christmas in July because that was about the time they got around to sending out their cards. They had Easter sometime in September because that was about the time that they got around to digging the Easter baskets out of the attic.

It was their feeling that if you can do something tomorrow then go ahead and put it off for a later date. Well, being the great procrastinator that I am I never have gotten around to actually signing up to become a member. And, I'm just now getting to share with you what the HANDI-HAM System might in a way call its Christmas wish list.

This does not really have anything to do with Christmas but it is like one of those old wish lists which I used to make when I was a kid. Perhaps some of you remember eagerly waiting for the arrival of the Sears (or other) catalog so you could make a list of everything that you might possibly want as a gift when the holiday season came around.

Unlike the list filled with toys and other paraphernalia that kids pick out of catalogs, a HANDI-HAM wish list is not for things, but for people.

As you know, one of the main services provided by the HANDI-HAM System is the locating of a tutor who will work with each student on an individual basis. Though we have been able to place tutors with most of our students, and the willingness of the ham community to volunteer is what has been the driving force behind the HANDI-HAM organization, we still have a few weak links in this chain of students and volunteer one-to-ones.

I am aware that in these com-

munities listed below there are thriving and active amateur radio clubs. However, students in the HANDI-HAM System are often unable to attend traditional radio club classes. We are looking for hams who are willing to go to a student's home for, say, an hour a week to do some individual tutoring. If you would like to help in this endeavor, please get in contact with us at the Courage HANDI-HAM System, 3915 Golden Valley Road, Golden Valley, MN 55422; or phone 612/520-0513.

Handi-Ham Wish List

Though the HANDI-HAM System will welcome members from any location, we are especially in need of persons from the following areas: ALABAMA — Grant, Phenix City; ARKANSAS — Jacksonville; CALIFORNIA — California City, Chula Vista, Daly City, Hawthorne, Inglewood, Los Angeles, Menlo Park, Pleasanton, Sonoma, Temecula; COLORADO — Wheatridge; CONNECTICUT — Rushwood; FLORIDA — Haines City, Jacksonville, Miami*, Miramar, New Port Richie, Orlando, Palm Bay; GEORGIA — Columbus; ILLINOIS — Broadview, Hinsdale, Oglesby, Sterling; IOWA — Ames, Decorah; MAINE — Brewer, Lewiston, Machias; MASSACHUSETTS — Quincy, Wellesley; MICHIGAN — Grand Rapid, Otisville, Port Huron; MISSISSIPPI — Seminary; MISSOURI — Elk Creek, Hazelwood, St. Louis; NEVADA — Las Vegas; NEW JERSEY — Cherry Hill, Florham, Jersey City, Pittman; NEW YORK — Corham, Endwell, Far Rockaway, Horseheads, Kingston, Staten Island; NORTH DAKOTA — Bismarck, Mandan; OHIO — Kent, Maumee, Sylvania, Willowick; OREGON — Eagle Point, Newport; PENNSYLVANIA — Conneaut Lake, Hazleton, Lake Ariel, Wallingford, Walnutport; TEXAS — Altair, Athens, Crystal City, Dallas, Scroggins; UTAH — Sandy; VIRGINIA — Abingdon; WISCONSIN — Fredrick, Phillips; COLUMBIA — Bogota*

**Note — The student in Bogota, Columbia is fluent in Spanish and English. The student in Miami needs an assistant who is fluent in Spanish.*

It has also come to my attention that one of our blind students is looking for someone who would be willing to read a portion of the PK-232 Manual on tape. If you can help with this project, please contact Bob Hicks, KC8CR, 48 Pleasant View Ave., Wheeling, WV 26003; or phone 304/233-3775. □

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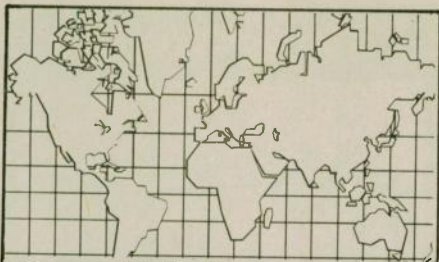
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Activities Calendar

- 27-29 Jan. CQ Worldwide 160M Contest (CW)
- 28-29 Jan. UBA/REF French Contest (CW)
- 04-05 Feb. RSGB 7.0 MHz Contest (SSB)
- 11-12 Feb. VERON Dutch Contest
- 11-12 Feb. RSGB First 1.8 MHz Contest
- 11-12 Feb. SRJ Yugoslavian Contest (CW)
- 18-19 Feb. RSGB 7.0 MHz Contest (CW)
- 18-19 Feb. ARRL International DX Contest (CW)
- 24-26 Feb. CQ Worldwide 160M Contest (SSB)
- 25-26 Feb. UBA/REF French Contest (SSB)
- 25-26 Mar. CQ Worldwide WPX Contest (SSB)

Two applications for Worldradio's Worked 100 Nations Award were processed on Dec. 1st. Our congratulations to the following DXers:

- 349. KA9FCZ Chris Hursta
- 350. JA1IT Makota Shin Takana-shi

Jack Watt, W8HYQ, asks what is the W-100-N contest? Well, Jack, it isn't a contest at all. The W-100-N certificate is issued to any licensed Amateur Radio operator who has confirmed contacts with at least 100 nations since Jan. 1, 1978. This is not a duplicate of ARRL's famous DXCC.

We have printed complete rules in this column in the past. Anyone who wishes a copy of the rules and the Nations List should either write to me direct or Worldradio. Please provide a SASE.

Oman (A4)

Reported in *QRZ DX* the Royal Omani held a special field day event Dec. 22 and 23. This was a dual purpose celebration — the 16th anniversary of the ROARS and the changing prefixes from A4X to the new A40 to A49 assignments. The first day the call A4XXA was used, followed the



During the early part of the summer, Uwe "Bob" Bobolz, DF5BM, spent a couple of months on the Island of Malta signing 9H3IJ. Here Bob poses with his tribander mounted on top of the building. (Photo courtesy of DF5BM)

next day with A43XA.

Checking the reports for November several different A4X calls were active. Most of the activity was on 10M. Although the calls will have changed, here is a list:

A4XJV	14.207 HHZ	0430 UTC
A4XJW	14.208 MHz	1430 UTC
A4XKB	14.181 MHz	0315 UTC
A4XKJ	14.190 MHz	1300 UTC
A4XGY	28.465 MHz	1245 UTC
A4XJV	28.638 MHz	1345 UTC
A4XKB	28.543 MHz	1430 UTC
A4XRS	28.509 MHz	1330 UTC
A4XTY	28.465 MHz	1245 UTC

Most likely, the only change in the call will be the replacement of the letter X with a single digit.

Bahrain (A9)

Not far from Oman is Bahrain. Not much activity has been reported from this one, although we did see three. A92BE has been reported on at least three bands. Tune in near 3.799 MHz

about 2200 UTC, 7.047 MHz at 1915 UTC or 28.506 MHz around 1445 UTC. That 75M frequency was when he was working Europeans.

Also reported was A92EX on 28.500 MHz at 1300 UTC and A92FA on 21.029 MHz at 1400 UTC with good signals into New England.

Andorra (C3)

Last May Kauko Cederlund, OH3TQ, and his son, Juha, OH3RF, spent some time in Andorra where they operated as C30LFC and C30LFD, respectively. They said that going by car was the only way to get to Andorra. Their hotel was 2475M elevation and no towers were needed. The lack of Spanish made it difficult, but the local Andorra amateurs helped them with the licenses. The Friday evening prior to the WPX contest they put up the Butternut on the hotel roof only to have it covered with ice due to a storm. They had to wait for the morning sun to melt it. A total of about 5000 contacts were made during the four days operating. Following the contest they went to the beach at Costa Brava to thaw out.

At one time Andorra was a real rare one to work, and nobody seems to consider this one for a DXpedition. Things have changed. Several calls were reported during the month of November, such as the following:

C31LHJ	14.002 MHz	0730 UTC
C31ON	21.015 MHz	1300 UTC
C30DSA	28.034 MHz	1345 UTC
C30LAD	28.022 MHz	1315 UTC
C30LBT	28.006 MHz	1845 UTC

DX News Sheet also reported a C35ASM on 21.175 MHz at 1515 UTC. The C35 prefix is new to us, as we have only heard of C30 and C31.

Micronesia (KC6)

Minekazu Sugiyama, JA2NQG, responds to our comments on Micronesia in the September issue of *Worldradio*. Mine says that the government

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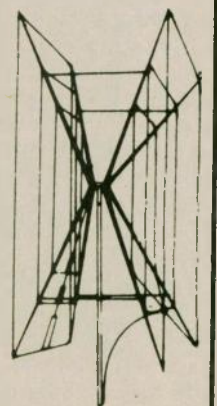
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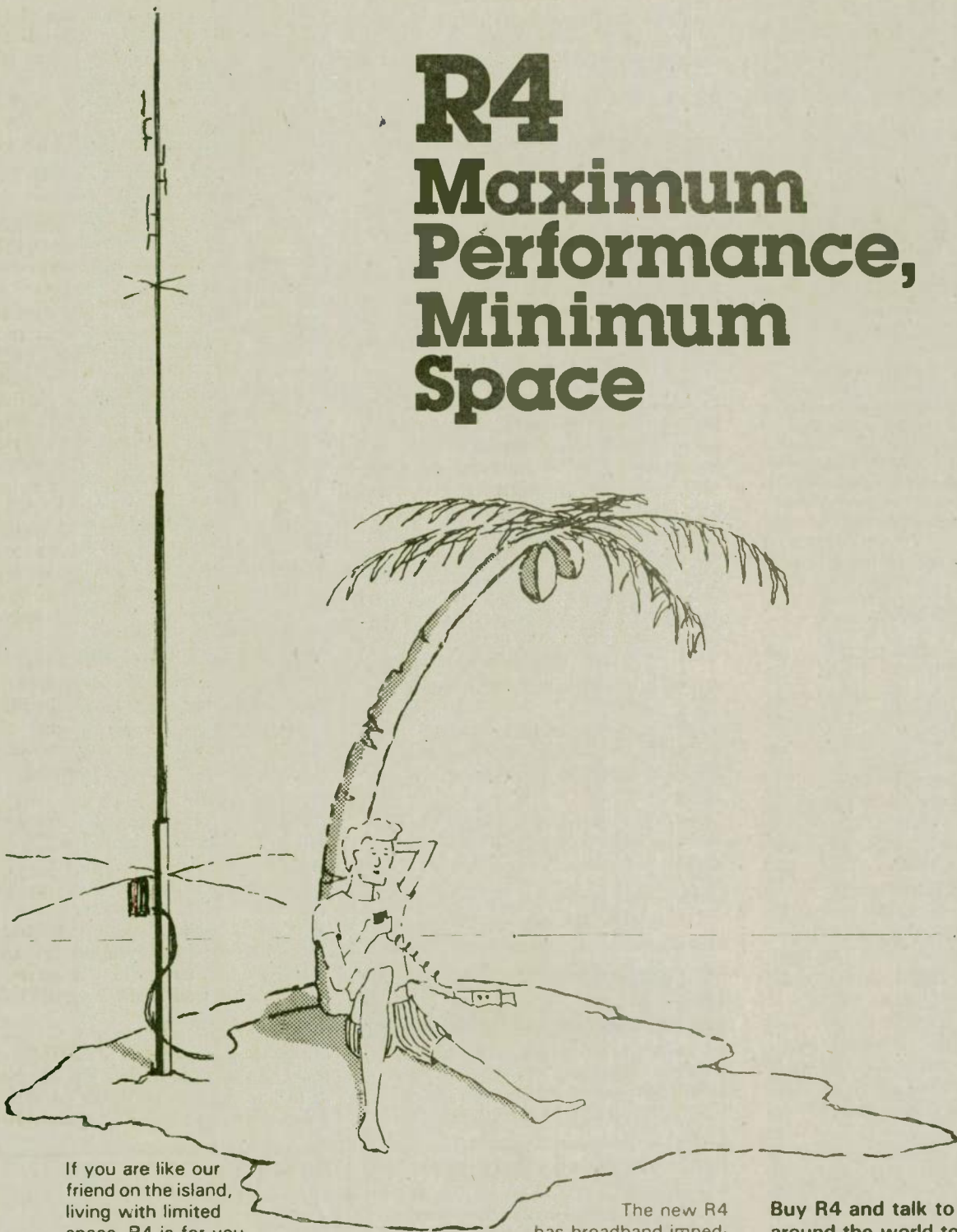
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of the Federated States of Micronesia (formerly Eastern Carolina Islands), has been issuing operating licenses. The calls KC6SI and KC6TM were issued to Mic, JA7AB, and Sho, JA7HMZ, respectively.

Mine also reports that the govern-

DX Prediction

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

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

FEBRUARY 1989 WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	(15)	16	21	12	20
12	(14)	15	20	12	19
14	(22)	15	19	18	36
16	30	16	27	22	41
18	33	15	24	17	43
20	34	24	27	14	44
22	29	33	35	13	44
24	25	35	40	(13)	39
2	22	30	40	12	30
4	18	20	31	12	26
6	(17)	18	27	14	23
8	(16)	17	23	13	21

CENTRAL USA

UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	19	13	21	12	21
10	18	12	20	12	19
12	28	12	19	18	28
14	39	16	29	25	37
16	43	16	27	25	41
18	43	15	24	21	43
20	35	23	28	15	44
22	29	27	35	14	43
24	25	23	40	13	35
2	22	16	33	12	29
4	21	14	26	12	25
6	20	(13)	23	12	22

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	18	(13)	20	12	21
9	18	12	19	12	20
11	36	12	18	18	27
13	42	13	35	25	34
15	44	(13)	29	26	39
17	45	(12)	25	24	42
19	39	(12)	(23)	18	44
21	32	23	32	15	44
23	25	23	38	13	36
1	22	16	27	13	31
3	20	14	24	12	26
5	19	(13)	21	12	23

ment of the Republic of Belau (formerly Western Carolina Islands), has been issuing licenses for some time.

Egypt (SU1)

Amateur Radio activity is increasing in Egypt, evidently due to non-nationals now receiving SU calls. Charles Signer, WA9INK, has been issued the call SU1EE, and has been reported active on 20M, CW. Sig requested this call some time ago. Long-time subscribers to Worldradio will remember this gentleman when he ran the DX show for our publication. Sig reports that he will be moving to Sudan in May.

The DX reports show that SU1EE has been quite active, all on CW. Look for Sig near 14.034 MHz anywhere between 0100 and 0500 UTC. On other bands he has been reported on 3.502 MHz at 0430 UTC, 7.015 MHz at 0600 UTC and 28.031 MHz at 1430 UTC.

Also active in Egypt is another non-national type, John Reika, SU1EK. John's stateside call is WA6OWU. He favors SSB with most of his activity on 10M. Check 28.476 to 28.567 MHz from 1500 UTC.

A third station has been reported giving out contacts to the deserving. Look for SU1ER on 15M between 21.275 and 21.346 MHz around 1700 UTC. This station was operated by N6CW during the last Worldwide DX contest.

Larry, who formerly signed 5N0-WRE, is still trying for an SU1 call — hopefully soon.

Malyj Vysotskij Island (4J1FS)

The ARRL Awards Committee has unanimously accepted the DX Ad-

visory Committee recommendation to add Malyj Vysotskij Island to the DXCC Countries List by virtue of a commitment made by the ARRL back in 1970. This will include the July 1988 DXpedition by 4J1FS.

The island, known also as simply M V Island, was found in 1970 to qualify as a separate DXCC country under Point 3(b) of the DXCC Countries List Criteria, and was waiting to be activated. M V Island is leased from the Soviet Union by Finland and is separated by intervening Soviet territory.

Both the DX Advisory Committee and the Awards Committee were hung up over the callsign prefix. The Awards Committee felt that the M V Island may very well have qualified under the former *Separate Administration* clause of the criteria, which was in effect in 1970. The callsign would not have been an issue in regard to that clause. The prefix 4J is allocated by the ITU to the Soviet Union.


Do not submit your QSL card for this operation before Mar. 1. Cards submitted to the DXCC desk before that date will be returned without credit.

Zaire (9Q5)

Bob Blakeslee, N2IHQ, writes that he, his XYL Jackie, KB2GFV, and his 10-year-old son, Bobby, KB2GHX, all worked John, 9Q5AA, early in November. The Blakeslee's are new to the DX game and have been licensed less than a year. They worked John on 28.391 MHz at 2245 UTC. Notice that this is not a DX net or listmaster's ego frequency! See, brand new DXers can work DX without waiting in line for someone to bait your hook for you. 9Q5AA is with the American Embassy in Kinshasa.

Other calls reported active from Zaire include 9Q5DX, who has been reported on several bands. Look for this one on 7.003 MHz around 0100 UTC, 14.021 MHz at 2300 UTC, 21.025 MHz at 0045 UTC and 28.011 MHz at 1145 UTC. On SSB try 14.216 MHz at 0200 UTC and 28.545 MHz at 2045 UTC. And then there is Tom, 9Q5NW, who has spent much time on 10M near 28.490 MHz after 2100 UTC. Also, try 14.181 MHz at 0400 UTC.

We have three other calls reported during the month of November, although these weren't as active. 9Q5FF was reported on 28.385 MHz at 2145 UTC working into eastern Canada, with 9Q5UN being worked near 28.550 MHz around 2045 UTC. Also try 21.034 MHz at 2315 UTC for this one. A station signing 9Q5AN was reported on 21.035 MHz at 2330, but this may have been 9Q5UN.



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WPX Changes

CQ's WPX program will have a new definition of the term prefix. Under the old system calls such as WB200-XYZ or K200ABC would count only as WB2 or K2 as prefix credit. Now you will receive credit for the full prefix; in this case a WB200 and a K200.

Check your QSL files for some of these now valid prefixes. I'm sure that you will have several there. The change was effective as of Jan. 1 and all contacts made since Nov. 15, 1945 will count. For further information please refer to the December 1988 issue of CQ, page 32.

Diamond Jubilee

1989 will be a big year! For the ARRL, that is. Founded in 1914, the League will celebrate its 75th anniversary. To mark the historic event there will be a year-long celebration and the ARRL Diamond Jubilee Award.

The award will be offered in three categories:

- Work 75 ARRL/CRRL Sections on any mode and bands.
- Work 75 DXCC Countries on 18 MHz and 24 MHz bands.
- Work 75 US Novice Stations (and Technicians below 30 MHz).

All contacts must be made during the 1989 calendar year. Complete details for the award are in the October 1988 issue of QST, page 59. A copy of the award is shown on page 12 of the December issue.

DXers who have been thinking about the 18 and 24 MHz bands will have something to shoot for.

Working By District?

The following was prepared by Ray Griese, K6FD, a member of the Northern California DX Club. We had thought of this many times but never bothered to research and put it together. This is exactly the way it was printed in *The DXer*, the official NCDXC newsletter.

One hears comments on the bands when DX stations work by districts. It seems that someone is always dissatisfied. Not enough time for the sixes — too much time for the sixes — and so on.

Out of curiosity, I checked the amateur populations as shown in the Call Book and rounded the numbers off in increments of five. Here's how the ideal list would go:

W1 5
W2 10
W3 5
W4 20
W5 10
W6 15
W7 10
W8 10

W9 10

W0 10

Maybe a scheme such as this is worth a try?

Thanks, Ray, for the suggestion. Many times we have heard a DX station suddenly decide to work by districts and begin with an area with no propagation or very little interest from that area while the districts with good propagation are frothing at the mouth. Any other ideas or suggestions?

DX Aids

To keep abreast in working DX, a good DXer should subscribe to at least one of the many DX bulletins that are available. The following is a summary of the DX related bulletins that we receive.

DX NEWS SHEET. Published by the Radio Society of Great Britain, Lambda House, Cranborne Rd., Potters Bar, Hertfordshire EN6 3JE, England. Edited by G4DYO. Published weekly. Contact RSGB for subscription rates.

INSIDE DX. Published weekly by Arthur Hubert, N2AU, 436 North Geneva St., Ithaca, NY 14850. Subscription rates \$32.50 per year within the United States. Elsewhere \$45. Mailed First Class.

LONG SKIP. Published monthly by the Canadian DX Association and administered by the Toronto DX Club. Edited by John Sklepkowycz VE3-IPR. Subscription rates \$20 within Canada and the United States. Contact CANAD-X at P.O. Box 717, Station Q, Toronto, ON M4T 2N7, Canada. Membership in the association is included.

QRZ DX. Published weekly by Bob Winn, W5KNE, P.O. Box 832205, Richardson, TX 75083. Subscription rates \$30 for United States and Mexico, \$32.50 for Canada and \$50 elsewhere. Mailed First Class (Air Mail overseas).

THE LONG ISLAND DX BULLETIN. Originally published by The Long Island DX Club, this bi-weekly publication is edited and published by Harvey McCoy, W2IYX. Subscription rates \$16 within the United States. Other rates upon request. Contact Harvey at P.O. Box 173, Huntington, NY 11743-0173.

THE DX BULLETIN. Formerly edited by Jim Cain, K1TN, in Connec-

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Box 50062-W Provo, UT 84605 (801) 373-8425

ticut, this publication moved to the west coast. Published weekly and includes several newsworthy supplements. Subscription rates \$38 (First Class) and \$29 (Second Class). Foreign Airmail \$50. Contact Chod Harris, VP2ML, P.O. Box 50, Fulton, CA 95439.

THE W6GO/K6HHD LIST. If you work much DX you will need this one. Published monthly by the O'Briens, Jay, W6GO, and Jan, K6HHD, this item is a listing of over 5000 active DX stations with their respective QSL managers. This often saves time by referring to back issues of QSL Routes given in the various DX columns and publications. Subscription rates \$20 within the United States, \$25 for Canada and Mexico and \$30 elsewhere. Single copies \$2. Contact Jan at P.O. Box 700, Rio Linda, CA 95673.

K1BV DX AWARDS DIRECTORY. No, this one won't help you work DX. However, it might help you decide what to do with all those QSL cards that you have collected. Believe it or not, there are other awards besides DXCC, WAZ and W-100-N. This little volume contains 830 different DX awards from 99 different countries. Edited and published by Ted Melinosky, K1BV, 525 Foster (please turn to page 34)

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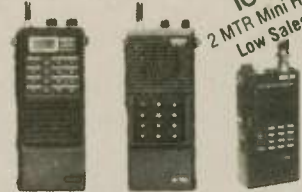
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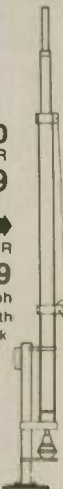
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 (See Note 1) 3DA0BJ -KX8V
 VP8BUO -G0IHK 4K2YL -UW3TW
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 (See Note 10) 5B4/W6KG -YASME (See Note 10)
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 DA1 (See Note 3)
 WB7RFA/ -WB7RFA 6J8RF -WB7RFA
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Notes:

1. Applies for operations made during the CW portion of the past Worldwide DX Contest.
2. Only for operations by OH2BAZ. All other operations via W6SZN.
3. These managers request cards be sent direct only. Bureau cards will not be answered.
4. Applies for the SSB portion of the Worldwide DX Contest.
5. The address for the HIDXA: P.O. Box 90, Norfolk Island 2899, Australia.
6. Send to this manager via the bureau.
7. You may QSL to Sig's homecall or direct to Charles Signer, American Embassy Cairo, Box 10, FPO, New York, NY 09527.
8. Contacts made on SSB go to F6FQK; CW to F6FSQ.
9. The Callbook may be incorrect. Try Matt Bender, 5000 Old Branch Court, Dunwoody, GA 30338.
10. In case you have forgotten the Yasmee Foundation's address: P.O. Box 2025, Castro Valley, CA 94548.
11. Applies for the months of November and December

1985 only.

Our thanks go to the following contributors for this month's column: DF5BM, SU1EE, OH3RF, JA2NQG, W1BIH, KD7EO, N2IHQ, WB7RFA, AA6EE, W9LNQ, N4EVS, NA5U, W8HYQ, The ARRL, Salt City DX Association (KB2G), Western New York DX Association (WB2ABD), Southern California DX Club (NK6A), Northern California DX Club (KE6ZE), Redwood Empire DX Association (VP2ML), Western Washington DX Club (K7ZR), Long Skip (VE3IPR), QRZ DX (W5KNE), The Long Island DX Bulletin (W2IYX), Inside DX (N2AU), DX News Sheet (G4DYO) and The DX Bulletin (VP2ML).

Now that we are already in 1989, what have you set for your DX goals this year? DX List types, this could be your year to try DXing on your own, and a good place is the various DX contests that are coming up. Good luck es very 73 de John N6JM.

... TALK TO THE WORLD! ...

ANNOUNCING! The 1989 Worldradio DXathon

ELIGIBILITY — All licensed Amateur Radio operators, worldwide.
DATES — Start: 0000 1 January, 1989. End: 2359 31 December, 1989.

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

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

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

Five Bands/Five Modes equals DXathon.

CATEGORIES — There is only one category — Single Operator.

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

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

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

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

WORLD RADIO

2120 - 28th Street

Sacramento, CA 95818 USA

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

AWARDS

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

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

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

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

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

D.—Technician/Novice scores as warranted.

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

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

In case of ties, duplicate awards will be made.

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

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

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

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

Thanks....from Pitcairn

Tom Christian, VR6TC, a descendant of *Bounty* mutineer, Fletcher Christian, and his wife Betty, VR6YL, would like to extend their gratitude to the following people, who donated to Pitcairn Island's fuel fund.

Hugh Glasgow, NR6S, Cerritos, CA
 Hal Williams, N6TZ, Camarillo, CA
 Henry Fox, WA5VHY, Hurst, TX
 Ted Olcovich, WA6BYX, Camarillo, CA
 Jack Clark, W9HJM, Hilliard, OH
 Bob Tauxe, W6JTA, Los Osos, CA
 Mort Cohan, KA1IU, Medfield, MA
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 Richard Shideler, K6KUQ, Woodlake, CA
 Denis Lawrence, W7HWR, Tacoma, WA
 John Morris, W6YAR, Norwalk, CA
 Joseph Fava, W4AHR, Cocoa, FL
 William Schroeder, K4HV, Port Richey, FL
 Don Alberty, KP4DQ, Puerto Rico
 Jerald Jensen, WC7F, Idaho Falls, ID
 Wayne Donnelly, KB1HJ, Bradford, NH
 Rod Linkous, W7OM, Seattle, WA
 Ted Weinstein, NK7Y, Lincoln, MA
 Andrew Donovan

Dr. Charles Moser, W6HS, who is also the Christian's QSL manager, conducts an ongoing fundraiser for the island, whose diesel generator oil costs \$130 per barrel. Donations may be sent to him at 10861 Langdon Ave., Mission Hills, CA 91345.

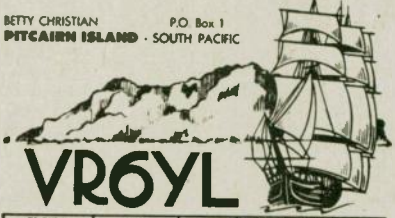
Pitcairn, a British Crown Possession, is a 2-mile by 1-mile volcanic island that is equidistant between Tahiti and Easter Island. □

PITCAIRN ISLAND
VR6TC

To _____ confirming SSB / CW QSO on _____ MHz
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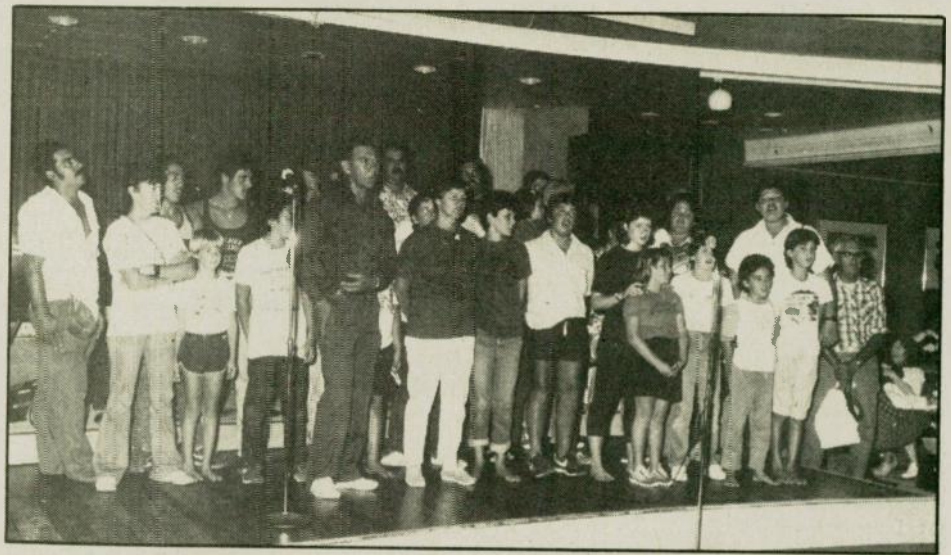
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VR6YL

TO RADIO	DATE	GMT	MODE

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Tom, front row left, and island residents pay a visit aboard the cruise ship *Sagafjord* in Feb. 1988. The ship was anchored offshore and a large part of the island's population of 64 came aboard with stamps, miro-wood carvings and other memorabilia and produce.

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Confessions of a VOA journalist

Ruben Del Castillo, VE3OLR

Being a journalist is great, but being a journalist that works in front of a microphone is even greater. I strongly believe in communications, and I also believe that each one of us is capable of performing such a job.

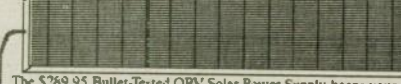
For the past 24 years of my life, I have been working in communications and my job has taken me to many different countries. That's how I learned how nice it is to be an Amateur Radio

operator. Wherever I was based — in Lima, Peru or Madrid, Spain, or back in Toronto, Canada — I have been able to "keep in touch" with the rest of the world.

Now I work as an International Radio Broadcaster (IRB) with the Voice of America, Latin American Division, and every Sunday evening at 7:45 p.m. (EST) you can tune in to "W3 CONTACTO DIRECTO" (in Spanish), where I do what I can to promote our wonderful hobby.

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Visit Your Local RADIO CLUB

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

ALASKA

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

ARIZONA

Arizona Amateur Radio Club. Meets: 2nd Thursday/monthly, 7:30 p.m., 1510 E. Flower St., Phoenix, AZ. Club info on W7WGW/R 147.88/147.28 Rptr.

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

CALIFORNIA

Amador County Amateur Radio Club. P.O. Box 1094, Pine Grove, CA 95665. Senior Citizens Center, Jackson, CA. Meets: first Thursday/monthly, 7:30 p.m. WA6WIY Rptr., 146.835, 146.235. Net Tues. 7:30 p.m.

Associated Radio Amateurs of Long Beach, 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.

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

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

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

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

East Bay Amateur Radio Club. P.O. Box 1393, El Cerrito, CA 94530. Meets: 2nd Fri./monthly 8 p.m., Salvation Army, 4600 Appian Way, El Sobrante. Nets: Slow CW, Wed., 8 p.m. & SSB Net, Wed., 9 p.m., 21.395. Info, Bob Fields, KC6AOH, 415/237-3761.

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

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

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

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

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

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

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

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

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

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

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

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

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

Sacramento "Old Timers" Ham Radio Brkfst Club. Meets 2nd Wednesday/monthly, 8 a.m., Carrows Restaurant near Watt Ave. and Hwy 80 exit. For info contact Paul Wolf, W6RLP (916) 331-1830.

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

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

Santa Clara County Amateur Radio Assoc. (SCCARA) W6UW. P.O. Box 6, San Jose, CA 95103. (408) 249-6909. Meets: 2nd Mondays/monthly, 7:30 p.m. Net other Mondays, 7:30 p.m. W6UW 146.385 + /425.425 + .

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

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

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

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

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

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

Stanislaus Amateur Radio Assoc. (SARA). P.O. Box 4601, Modesto, CA 95352. Stanislaus Co. Administration Bldg., 12th & H Streets, 3rd Tues./monthly, 7:30 p.m. 145.39 MHz WD6EJF, 223.68 MHz.

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

United Radio Amateur Club K6AA. L.A. Maritime Museum, Berth 84. Foot of 6th St., San Pedro, CA 90731. Meets: 3rd Friday/monthly except Dec., 8:00 p.m. Talk-in 145.655 Simplex.

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

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

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

Yolo Amateur Radio Society. Meets: 1st Thursday/monthly, 7:30 p.m. 1207 Sycamore Lane, Davis, CA 95616.

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

CONNECTICUT

Tri-City ARC. Groton Public Library, Route 117, P.O. Box 686, Groton, CT 06340. Meets: 2nd Tuesdays/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, Inc. (PCARS). P.O. Box 1004, Melbourne, FL 32902. Meets: American Red Cross Bldg., 1150 S. Hickory St., 2nd Monday/monthly, 7:30 p.m. Talk-in on 146.850 rpt.

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

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

West Palm Beach Amateur Radio Club, Inc. P.O. Box 6834, Southboro Station, W. Palm Beach, FL 33405. Meets: 2nd Tues./monthly, 7:30 p.m., Palm Beach Emergency Op. Cntr., 3723 Beveledere Rd., W. Palm Beach. Info: H. Felton, 655-4632 or H. Logan, 848-0513.

HAWAII

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

ILLINOIS

Bolingbrook Amateur Radio Society. Meets: 3rd Mon./monthly, 7:30 p.m., Annerino Rec. Cntr., Recreation Dr., Bolingbrook, IL. Info net Thursdays, 8 p.m., WA9DIP/R 224.54/222.94 and WD9AKO/R 147.33/147.93.

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

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

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

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

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

Northwest ARC/W9LIM. Meets: 2nd and 4th Tuesday/monthly, 7:00 p.m., Oehler Funeral Home downstairs community room, Lee & Perry Street, Des Plaines, Illinois.

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

Six Meter Club of Chicago K9ONA. Bank of Lyons, Lower Level, 8601 West Ogden Ave., Lyons, IL. 2nd Friday/monthly, 7:30 p.m. Club Rptrs: 146.377.97, 448.30/444.30.

York Radio Club. Meets: 3rd Fridays/monthly, 8 p.m., Elmhurst College (Science Bldg.), Elmhurst, IL. Net Mondays, 8 p.m. W9PCS/147.42 simplex.

INDIANA

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

KANSAS

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

MARYLAND

The Peninsula Radio Operators Society (PROS). Family oriented activities, training and exams held throughout the year. PROS Rptrs. 146.925 and 146.625. PROS, P.O. Box 2315, Salisbury, MD 21801.

MICHIGAN

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

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

MISSOURI

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

NEBRASKA

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

NEVADA

Frontier Amateur Radio Society (FARS). Meets: 3rd Monday/monthly, 7 p.m., Denny's Restaurant across from Nevada Palace, 5318 Boulder Hwy. Net Mondays 7:30 p.m., 145.39 rptr. on Black Mountain. Club info, Jim Frye, NW70, 456-5396.

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

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

Sierra Intermountain Emergency Radio Assoc. (SIERA). P.O. Box 2348, Minden, NV 89423. (702) 782-8266. Meets: 2nd Tuesdays/monthly, 7:30 p.m., Douglas County Lib., Minden, NV. Talk-in: 147.270 +.

NEW HAMPSHIRE

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

NEW JERSEY

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

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

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

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

NEW YORK

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

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

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

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

NORTH CAROLINA

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

OHIO

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

Ashtabula County ARC. Ken Stenback, AI8S (964-7316). County Justice Center, Jefferson, OH. 3rd Tuesday/monthly, 7:30 p.m. County Rptr., 146.715.

Clyde Amateur Radio Society (C.A.R.S.). Meets: 2nd Tuesday/monthly, 7:30 p.m., Municipal Bldg., Clyde, OH 44811. NF8E Repeater 144.75/145.35. Net Sunday 9 p.m.

PENNSYLVANIA

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

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

Warminster Amateur Radio Club. Meets: 1st Wednesday/monthly 8 p.m., St. John's Lutheran Church, York Rd., Hatboro, PA. Nets: WA3DFU/R info. Net Wed. 8:30, 147.09/147.69.

VIRGINIA

Southern Peninsula Amateur Radio Club (SPARK). Meets: 1st and 3rd Tuesdays, Salvation Army Community Bldg., Hampton, VA. Operates 148/13 146.73/13 Rptr., VEC Information (804) 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 info (804) 497-1235.

WEST VIRGINIA

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

WASHINGTON

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

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

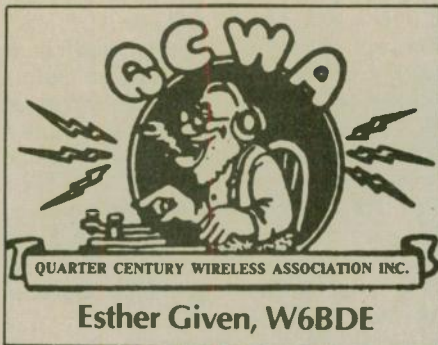
WYOMING

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

WEST GERMANY

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

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



The Quarter Century Wireless Association, like all other organizations composed of Amateur Radio operators, is faced with the dilemma of progress and change. Concerns include:

1. The low number of ham licenses being issued in spite of the Novice Enhancement Program
2. The reallocation of amateur bands at VHF and higher levels to industrial interests
3. The value of Morse Code capability as a requirement for amateur licensing and
4. What QCWA can do to promote, preserve and perpetuate the hobby.

Let's consider these concerns one by one.

1. Statistics on licensed amateurs have changed greatly over the last two decades. Current figures indicate that the average amateur radio licensee in the United States is 50-years-old, while less than two percent are under 20.

A major problem is the seeming lack of interest evidenced by today's young people. When Amateur Radio came into being early in this century, it was an opportunity to delve into the unknown, a chance to achieve the impossible, an exciting adventure in accomplishing original and untried experiments. As this century approaches its last decade, some of these facets of Amateur Radio activity have been dwarfed by the attractions of other electronic marvels. Amateur Radio's major drawing power for today's youth seems to be the adventure of reaching out for that distant someone and communicating personally with the rest of the world.

2. In an age when deregulation, industrial take-overs and other drastic manipulations are holding sway, it is tragic, but not surprising, that frequency reallocations have occurred. QCWA and many of its individual members are constantly monitoring the governmental scene and making our concerns and constructive criticisms known to officials involved.

3. Morse Code capability has one excellent argument going for it. One can overcome a language barrier,



QCWA secretary, Jim Walsh, W7LVN, left, congratulates new officers of Evergreen Chapter 87, W7VOU, W7ZZN and W7AZ.

"talk" to a ham half way around the world in "Q" signals, enjoy a pleasant and informative QSO and make a new friend.

4. Today's average ham, the 50-year-old mentioned previously, may already be a QCWA member or be eligible for membership if originally licensed when s(he) was 25. (S)He is torn between two schools of thought — the way things were and the direction in which they seem to be heading.

QCWA's major purposes outlined in its constitution are: to establish friendship and cooperation among amateur radio operators licensed 25 or more years ago to promote interest in Amateur Radio communications and the advancement of the electronic art, to make use of the reservoir of knowledge and experience represented within its membership for the benefit of all radio amateurs and to cultivate the furtherance of public welfare through amateur radio communications.

Arguments for and against change will go on forever, so will progress. QCWA strives to meet these challenges with foresight and wisdom.

Evergreen Chapter 87, serving the Tri-City area of eastern Washington state, held its annual meeting in Kennewick on Oct. 29, 1988. QCWA

(please turn to page 54)

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



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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.

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Pomona, CA 91768

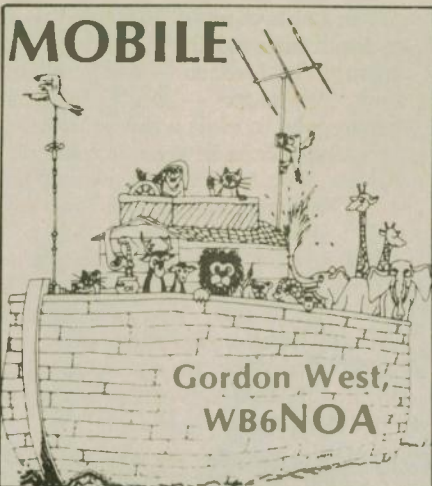
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How to obtain a temporary Mexican license

Mexico is now issuing temporary licenses to ham radio operators wishing to operate in their country. Although no formal reciprocal licensing agreement has been signed, the Mexican license has been available to *Americanos* for the last year and a half. Ever since the big Mexican earthquake, it's literally been a breeze to obtain a set of XE2 call letters for your stay in Mexico.

Most astonishing is the fact that you will receive operating privileges on all worldwide bands, regardless of the US license you hold. That's right, even a US Novice license turns into a Mexican "General Class" license for voice privileges on all worldwide bands. Maximum power out permitted is 250W — but hey, today's worldwide transceiver only puts out 100W, so you have room to spare.

Mariners cruising south this spring with just the US Novice license can now tune into and use all of those voice maritime mobile bands on 15, 20, 40 and 80M, LEGALLY! As long as they are within Mexican waters and using their Mexican XE2 callsign, the

majority of maritime mobile nets will freely work the *Americanos* and not ask what grade of US license they hold.

While I don't necessarily agree with someone not studying like mad and getting the General class license for worldwide voice privileges, this new Mexican licensing does put those "pirates" in the hot box — if nothing else, get a US Novice license, then get a Mexican XE2 license and operate legally on worldwide voice bands.

So much for the good news — now the bad. The only way to obtain the Mexican callsign is to actually go to Mexico to do the paperwork.

Don't run down to your local Mexican consulate expecting to do everything here in the good ol' USA and get a callsign. Won't happen.

Don't write the Mexican government expecting that they will send you all the paperwork to receive call letters *up here*. Again, won't work.

If you play along with their system, chances are you'll end up with callsigns issued right on the spot at about siesta time in the afternoon!

Here's what you need to get started:

1. Five copies of your current US amateur license — any grade including Novice
2. Five copies of a Mexican tourist card or Visa.
3. Five copies of your birth certificate.
4. Some command of Spanish — as a courtesy to our Mexican officials
5. Mexican Form HD-1 (Mexican consulate).

The process begins in any major Mexican city that has an office of "SECRETARIA DE COMUNICA-

TIONS Y TRANSPORTACIONES," abbreviated "SCT." You can check with your local US Mexican consulate to see what cities have an office or SCT. Along the West Coast, I know it's possible to obtain the Mexican license in Tijuana, Mexicali and La Paz. Of course larger cities, like Mexico City and other "biggies" in Mexico, would undoubtedly have these offices, too, similar to our FCC regional offices.

First you will present them with your US paperwork and your tourist card. The Mexican license is granted for the duration of your tourist card only. Yes, it can be renewed.

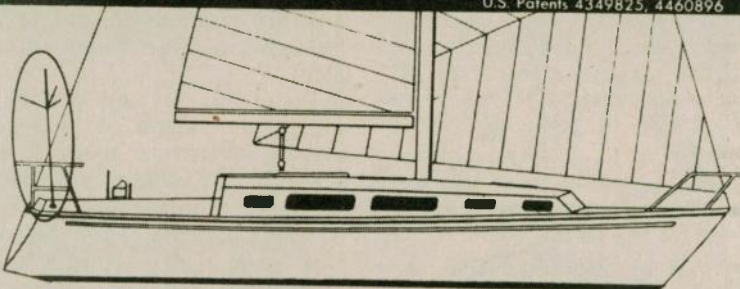
If you can speak a few words of Spanish, make every attempt to do so. This lets them know that you are sincerely interested in becoming a good US operator on Mexican soil. They will fill out some paperwork, and then send you down the street to pay your fee. The fee is around 50,000 pesos, and if you convert this to American dollars, you'll see it's a bargain for under 50 bucks.

Find the right office to pay your fee. It's sometimes called "Department De Hacienda," or "General De Normatividad Y Control de Comunicaciones, Delegacion Regional." Sometimes this office is close, but more than likely it's all the way at the other end of town. Be patient.

They may ask for a letter of recommendation from a local Mexican amateur radio operator to act as your sponsor. Many times you can obtain this from a fellow Mexican ham at the first or second office to which you go. Lately, sponsorship has not been a problem — but don't be surprised if

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they ask. If they do, and you don't know of anyone in town, start looking around for dipoles on someone's house! Usually they're more than happy to sponsor you.

Once you have a receipt for your payment, go back to the original office of communications and follow their orders. Smile. Don't even think of trying to buck the system.

After a few minutes, you may be amazed to find that they can issue a callsign, **RIGHT ON THE SPOT!** That sure beats the month and one-half licensing wait here in the US, doesn't it? In smaller cities, they may ask you to come back in a day or so.

Whichever way it goes, be polite, patient, and know that Mexican call letters are just around the corner.

Your call letters will normally begin with XE, then the number for your Mexican geographical area followed by three other letters. In Baja, CA, almost all mariners are receiving XE2H—.

Licenses are good for as long as your current tourist permit is valid. You will submit a log book filled with all of your communications for renewal. Renewal may only run around 9,000 pesos. You can renew in more places than you can originally receive the license, too.

The instructions I have just given you are abbreviated. Weekly I receive updated information for popular cities throughout Mexico — and it all reads about the same — smile, be patient and expect to visit a *minimum* of two different offices in your pursuit of call letters. Best record time is three hours in La Paz, and longest was two weeks in Ensenada.

If you plan to visit Mexico, plan to get an XE callsign and bring along your equipment. You will find the Mexican authorities more than obliging to issue your callsign on the spot if you just follow their instructions and paperwork requests. □

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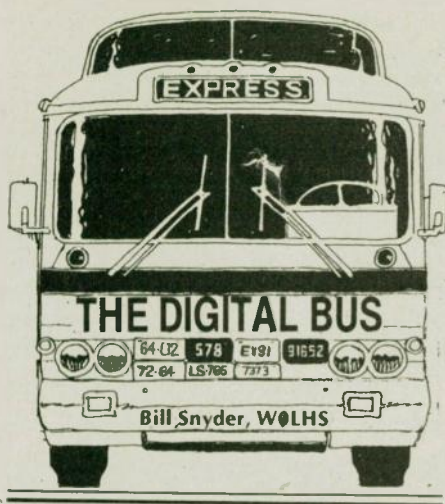
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One of the little things that glasnost has opened up in the Russian amateur world is direct QSLing to and from the USSR operators, and I think it is great! For the past few years, Dima, UT5RP, has been one of the few Russian operators with a direct mail address, and so I have sent my old call books to him when the new ones arrived each December.

Well, when the 1989 books arrived I checked the Russian listings to see if there were very many direct addresses in the new book. Lo and behold, I discovered that two stations in the Soviet Union now have their QTH listings in bold type, and wouldn't you know it, one of them was Dima!

I once asked Dima to help me get QSL cards from two other Russian RTTY stations that were ignoring me. It really worked, I got both confirmations in practically no time at all. Thank you Dima, you have the real "ham spirit"!

Bulletin Board Stuff

Running a public bulletin board on packet is sometimes a chore, but it's a



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lot of fun, too. One of the best times comes when a National Traffic System (NTS) message arrives for delivery. It's fun to explain to an addressee how the message came to your shack from an air base in Germany over the Military Amateur Radio System (MARS) and wound up on your packet bulletin board for delivery.

I had that privilege recently when I left the message reporting a serviceman's safe arrival overseas on a local telephone answering machine. The addressee family was away from their home when I called. They called me back to ask how the message was sent, and after I explained the system, were quite thrilled and couldn't thank me enough. So, I would like to pass on their good wishes to the MARS system, too.

Gar, W6AXM, is a real MARS booster. He writes to plug the MARS network and solicit new members as follows:

"I just thought that the folks out there might like to know that the USAF MARS program has a nationwide network working 24 hours a day on various frequencies outside (often very far outside) the amateur bands. This network began only four years ago with just two stations in New Jersey on one of the Air Force VHF channels adjacent to the 2M amateur band. From that humble beginning we now have stations in almost every state in the continental US and BBS, each running KA2BQE's ROSERVER Packet Radio Mailbox System (PRMBS) in each of the six CONUS regions. In fact, there are now so many auto-forwarding systems with so much information to exchange, we have had to adopt alternate hour forwarding so that each BBS forwards (actually swaps) traffic once every two hours on HF while maintaining the hourly schedules on the regional and local HF and VHF channels.

"We now need to grow more branches and are soliciting new members for the program. Among other duties, these members can help us funnel the traffic down to the state and local levels and build and maintain a VHF digipeater/node net in some of the states and regions where there is presently nothing but a solitary PRMBS mail server.

"There are some basic requirements for MARS membership, but nothing prohibitively time consuming. Military operations training is supplied to each new member. Not only does the Air Force program need new personnel, but the Army MARS program is embarking on a similar project. Information relative for the Air Force can be obtained from Office of Chief, USAF, MARS, HQ AFCC/DOOCC (MARS), Scott AFB, IL 62225-6001.

The Army MARS address is HQ Army Info Systems Command, AS-OPS-OA, Ft. Huachuca, AZ 85613.

"The inquirer should specifically request the address of his/her state MARS director who screens all new applications."

I was a member of the Army MARS way back when the project was new. Because I served in the Signal Corps during WW II and also kept up my active reserve status for over 20 years, my loyalty was to the Army rather than the Air Force system. However, I'd recommend either system for attaining a little extra satisfaction from your amateur radio hobby.

My public bulletin board hooks up with MARS member Harold Parkin, K0TMH, whose station is 140 miles away in Devils Lake, ND. You'd be surprised at the amount of traffic Parky handles into North Dakota.

Digital CW

Charles Young, KA8WOT, of Jackson, MI writes: "The only digital mode I work is CW. No packet, no RTTY, no ASCII, no FAX, no SSTV, no NAVTEX and no AMTOR. I guess it's because I can talk a lot faster than I can hunt and peck. I used a keyboard once for CW. At 13 wpm the letters were being sent faster than I could find them. Being able to send at 21 wpm with a straight key, I gave up the keyboard in short order."

Young's appraisal of digital communications brings to mind a railroad telegraph story about a beginning operator. I think most hams are aware there is a big difference between the International Morse and the American Morse codes, both in sound and in dot and dash construction.

The American Morse code, invented by Samuel F.B. Morse, has a number of idiosyncrasies that trouble begin-

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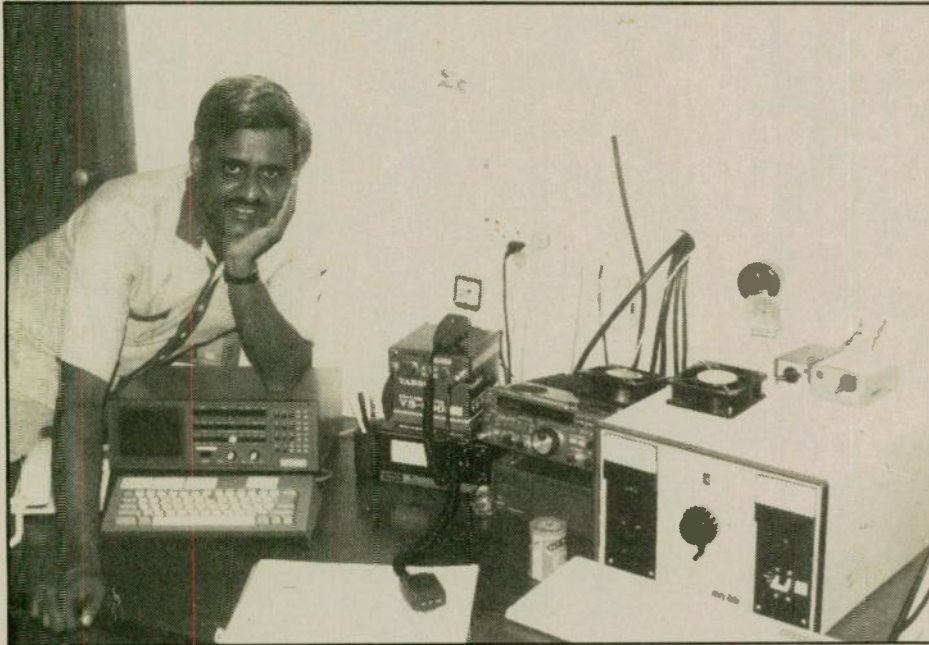
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ning telegraph operators. The letters T, L and the figure zero are all dashes, the distinguishing difference being in the length of the dash. Also, the letters R and C are all dots with a very short space in them, and they can be confused with the letter S. There are other differences in letters and numbers, too, but for this story they are inconsequential.

FORGOT WHAT I WAS GOING TO SAY ... EITHER YOU ARE ON THE WRONG SIDEBAND OR I AM ON THE OTHER ONE ... MY FIST IS TOO RUSTY FOR TYPING ... PLEASE EXCUSE MY KEYS, IT GOT REAL EXCITED ... THE LORD GAVE US FINGERNAILS TO PICK OUR NOSES ... REALLY CABLE TV IS A BLESSING

SIT HERE WITH MY HELMET ON HOLDING MY LAST WILL AND TESTAMENT ... THANK GOD THAT JIMMY SWAGGART IS NOT ON OUR LOCAL TV CHANNEL ANYMORE ... GOOD LUCK, YOU BIG LID ... (Heard from the MIR spacecraft hams) VERY MUCH QRM, PLEASE ONLY ONE STATION CALL AT A TIME ..."



VU2JX, J. Shrinivasan, Bangalore, India poses with his Tono 5000E RTTY gear and other heavy duty equipment. JS has been a popular station on the digital mode. His QSL card states: "QSLs sent direct reach me, those sent by the bureau don't." He also states he will be in the CQ WW RTTY contest signing AT0J.

Our story takes place during the World War II shortage of skilled operators. It seems a beginner was communicating with another station down the line. Hired right out of telegraph school, the neophyte fancied himself as a hotshot operator, so he was keying his bug as fast as he could go when the operator at the other end broke in with, "REND STOW IMA GIRT."

That set the hotshot back a bit, so he tapped out the necessary code for a repeat.

Again the other station sent, "REND STOW IMA GIRT."

"What in hell is wrong with that operator?" the hotshot asked of a senior operator on duty.

"Nothing," said the old timer, "she's saying 'SEND SLOW I'M A GIRL.' You've gotta learn the difference between R and S and T and L. Didn't they teach you anything in that school?"

The hotshot rookie didn't answer, he just slowed down.

Eavesdroppings

"I GOT TYPING SO HARD I

WHICH THE GOOD LORD GAVE US FOR SAVING THE WORLD, ETC. — BUT I HAVE TWO NEIGHBORS WHO STILL WATCH RFI TV ... SOLID COPY, JIM BUT I MISSED A BUNCH BECAUSE ANOTHER GUY WAS ON TOP OF YOU ... I'VE BEEN ROASTING MY 440 IN THE MICROWAVE TO TOUGHEN IT UP A LITTLE AND I

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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.

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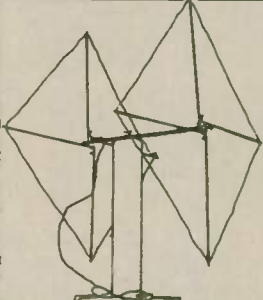
A Strange Eavesdropping

This was overheard on 20 CW. A USA station was calling 3W8CW blind, apparently hoping for a lucky contact with the rare DX station. All of a sudden an anonymous operator starts interrupting with, "LID LID LID LID LID LID LID ..." Now my question is this: Which one is the LID?

Thanks to W0HAH, KA8WOT, N0BCW, W7VFR and W6AXM. Also thanks to those stations who dropped me a packet message. Bill Snyder, W0LHS, 1514 South 12th Street, Fargo, ND 58103. Packet address is W0LHS @ W0LHS.ND.USA.NA. DIT DIT. □

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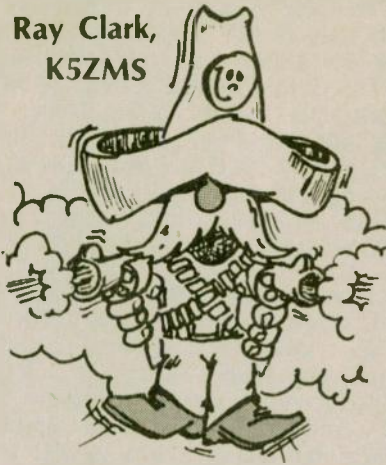
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DX News

Larry-N0LL says May 1st got him CX8BE-2117Z, LU9AEA-2129Z, LU7DZ-2144Z, CX8BE-2206Z again. G4GLT sent a tape of his N0LL beacon heard June 5 in England from 1421-1427Z. June 18, 2322Z worked P40JT. July 12, 0053Z, heard PJ9EE. So far this Fall, Sept. 8, 2251Z got HC8CG. Oct. 10, 1915Z-1925Z got HC2FH, HC2BI, HC5K and heard the HC8SIX beacon. Nov. 3, 2120Z heard WY5L/KH3, 2319Z got TI7TE, 2329Z got LU2WM. Nov. 10, 1747Z worked OA8ABT. Nov. 11, 1517Z heard HC2FB beacon.

Joe Mancoso, KG6JDX, was active on Six from England as G0/KG6JDX during October. He worked many G stations. His only DX was G3-JGQ/5N28-Nigeria, on Oct. 30th! On Nov. 2, 1988, at 2141Z and 2153Z, the KH3 beacon was heard by Clem, K1GPJ. It was heard again on the 4th at 2233Z. 4th-HC2's into Florida, while WB8IGY gets LU's at 2245Z.

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Bob — WY5L/KH3 gets W6's again — 2200Z-2242Z, and hears Al, KL7NO, but Al didn't hear him! ZL's are into W6's, KH6 into NM!

During the afternoon and evening of the 4th — ZF2MU (N3AHI) worked LU, CE, PY, CX, OA and XE1's — 2300Z-0300Z. 5th — OA8ABT into NM, NV and CA — 1740Z. QSL to: Darrol Lockhard, OA8ABT, P.O. Box 52, Pucallpa, Peru.

5th — 2115Z, a new Costa Rican station, TI7TE was active on Six with contacts into South Washington, while LU's were into W4's. 6th — Bob, WY5L/KH3, worked northern W6's and HC2's into Eastern and Central United States. 8th — 2053Z, KH6IAA into MT, NM, AZ, ID and CA.

9th — 1900Z W6's and W7's work W1's and VE1's on what might have been the first transcontinental F2 for this cycle. Oregon W7's have LU's and W6's get HC2's.

10th — 1438Z-HC2FG into W4, W5, W8, W9 and W0's. 1645Z-1705Z-VO1JN, Newfoundland, worked by me and NM, for first F2 contact to VO1 this cycle. My first contact with him last cycle was Nov. 3, 1979. 1700Z-1840Z-VE1YX into W7's and W6's into FL, as we get F2 and Es activity. W7's also work OA8ABT. 1745Z-1830Z-OA8ABT works most of Western and Central United States. I

work him at 1804Z. At the same time OA8ABT is working the North/South path, the following takes place on the same frequency (.110), on the East/West path!

At 1807Z Fred Fish, W5FF, works Kozie, ZS3E, twice, for the first known South Africa contacts for Solar Cycle 22! KH6IAA into AZ this date.

12th — 1420Z, VE3DFO, K1TOL, K1JRW and K8WW all worked ZS3E! At 1439Z — Arnie, CO2KK (the only active CO station on Six), also heard ZS3E. 1420Z-1540Z, HC2FG and HC5K and OA8ABT were into the United States. I work HC stations from Grid EL19, while I mobile to Houston! 1600Z-HC2 and TI2 beacons into Southern California. 1800Z — W1, W2, W3, W4's into Pacific Northwest and West Coast on apparent F2. At 1840Z LU8YYO and VP5D beacons are in. At 1920Z AH6IO-HI is reported heard by KA1MFA!

Nov. 13 — 1400Z-OA8ABT into Northeast. 14th — 1653Z-VP5D got N7JJS on apparent Fs. 15th — Flux = 174, 1335-1400Z — the ZD8MB beacon is into W1's! 16th — The HC2 beacon was also in. 17th — Flux = 180, 0915Z-0920Z, Steve, G4JCC, had BY 49.75 TV video break through the UA TV signal he was also receiving.

18th — 150Z-1214Z, ZD8MB beacon was heard by PA0HIP, K1JRW, K1IKN and K1MM, who had near contacts with Mike, ZD8MB, Ascension Island. 1307Z-ZD8MB heard PA0HIP. 1630Z-HC2FG's beacon into W6's. VP5D beacon into MA. NJ stations heard ZD8MB's beacon at 1430Z. Nov. 18 — Flux = 166, 1450Z-1515Z, the HC2FG beacon is heard here. Nov. 18/19 W6XJ gets ZL's into change of radio day. 18th — W5OZI has several hours of W6's on Es during the start of the new radio day. John, W5UWB, Kingsville, TX, reports another ZL QSO on Nov. 20. 2215Z with ZL2AGI, on 51.110, the only ZL heard.

21st — A double hop Es event takes place between Eastern and Western United States coasts. 23rd — Flux = 139, 1643Z-1745Z, N2AVR, NJ has VP5D beacon in, also into W3GUF at 2000Z. 2230Z-2340Z, ZD8MB works several FL W4's.

24th — 1600Z, Es from MD to FL. 26th — 0000Z, Es on TV here to FL. 1423Z-1435Z, HC2FG to W4's and W5's. Northeastern United States has FY7 beacon. From Nov. 22-27 KC6TO-E, Caroline Is. (KX6DS) worked 600 JA's, KH6's and KX6TY! Julio, D44BC, has reportedly received the rig and worked LU's and CX's. Someone reported on 28.885 that the solar flux average for the first 26 days of November was 159.3.



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A major F2 event occurred during the 30th of November. The flux was only at 140, A index = 30, K index = 6 with major storm levels in effect. Starting around 0600Z, KH6IAA reports a major VK and ZL event. From 1408Z-1530Z, the East Coast, Central and a South American have a major F2 opening to Europe. VE1YX works 44 stations in G, GI, GM, GW, PA0HIP, CT. K1JRW works 18 in the same area. Their antennas were pointed at 110 deg., while mine was at 105 deg. This indicates a skewed path with a point somewhere over the mid Atlantic.

1300Z-HC2FG is reported to have worked G4IJE and G4ASR with strong signals. The FY7 beacon was reported in strong to New England, while the CT0WW beacon was in weak. K1JRW reports hearing most G beacons and FY7 at the same time! In the middle of all this, Juan, P43AS, got into his first major opening. I heard W1's, 8's, 9's, 0's and 5's from TX, OK, NM calling him. There was a major pileup on him. He worked as many as he could, including one lone G-G4JCC. Many heard him, but he just couldn't get through.

Who's On Six?

According to The DX Bulletin, Marion Island-ZS8, after an absence of almost 10 years, will be activated in April by Peter Sykora, ZS6PT, as ZS8MI. He will also be on Six SSB and CW. QSL to ZS3E and WA3HUP.

Hill, VY1CW, says that besides himself, VY1's AU and BQ are also active on 6M. They just aren't getting much activity yet. 5B4AZ and OG are very active on 6M, now allowed to operate on 50.110, having worked all over Europe and South Africa.

It is not yet known if ZC4 stations will be allowed on 6M. Mic, XE1MD, tells me that Patty Cisternas, CE0GHO, should be active on 6M soon from Easter Island! That was a nice shock! More as I learn it. Mic said XE1GE worked ZD8MB about Nov. 7 and XE1EAA, in Los Mochis, has a rig and will be on soon, as will XE1PAF using a TS-680S. XE1IK wants to get on also.

Ted, G4UPS (ex-ZD8TC) says he worked 78 countries in Cycle 21 from Ascension and expects ZD8MB to do as well.

A great surprise was the appearance of G3GJQ/5N28 on Oct. 22, using 10W and 5 elements. He manages a company in Nigeria.

Also active is KH6HSS/5N0, but it is believed he is limited to evening operations. Both have done well into Europe so far. Although Daniel, FT5ZB, (F5CW) has returned home, he has been replaced by Michel,

FT4ZE, on 6M. EA1MO has worked numerous ZS's recently. I am told his QSL's are being accepted for awards by the ARSGB.

FR5EL has contacted a number of 9H1's. TK5BF, Corsica, is active. ZB0/G1CWP provided a nice surprise into ZS on Nov. 2. He will return to Gibraltar next June. HZ1AB and HZ1HZ are both said to be active on 6M.

KC4AAA, Antarctica, is soon to be on, according to Terry, N6CW, who is donating a SWAN 250. Brent will be the operator. More as I learn it. The D44BC antenna was donated by Jim, N6TJ. Monty, VE3EVW, will be at his Montserrat home at VP2MJ mid December to April. TA1E said they would build a converter at the club station and start crossbanding from Turkey. I am told SV1DO and SV0FE lost their 6M licenses due to complaints by the Greek Amateurs. They thought it unfair that they could not operate 6M.

Fred Simpson, VP8PTG, says he has worked some more LU's, CX's and CE's since the last report. What he has worked so far has excited him and he is looking for more DX in the time he has to operate. He has only a wire dipole at 50'ASL for an antenna! He has heard several of the ZS beacons since he has been active. Unfortunately, his sheep ranching business has kept him very busy. The power is only on from 6 a.m. to 1 p.m. (1000Z-1700Z) and to 5 p.m. - 11 p.m. (2100Z-0300Z), so that complicates matters. You will probably have a better chance on the weekends. At least you will know when NOT to look for him! He cannot get to 28.885 because his HF rig, a KW2000A, only goes to 28.8.

W400-FL reports the CT0WW beacon at 1448Z, working DK3RV/CT1DTQ-1452Z, CT4KQ-1504Z, GW4LXO-1510Z for country #76, G3COJ-1513Z, G3UFR-1516Z-G4TTG-1520Z. W2MGF/4 reports VP5D was working G's with a 5/9+30 over signal into them. At 1417Z W2IDZ worked CT4KQ. VE3KKL says he heard East Coast working G's, and he got P43AS, and TI7TE, while hearing a TI2.

K2QWD got P43AS (who worked 40 stations) and TI7TE. K8EFS reports he, K8WKZ and WB8BKC got P43AS-1400Z-1530Z with TI7TE, and FY7 and TI2 beacons in. As quickly as this appeared, it was gone by about 1530Z. Mike, ZD8MB, was there but did not hear a thing! After this, about 1900Z the G's have a 9H1BT opening. P43AS's QTH appears in QSL INFO.

What transpired around 50.110 this day indicates the need for some changes. First of all, don't call a DX station if you can't hear it. I heard a horrific pileup on P43AS. Operators were continually calling when P43AS was calling or talking.

DX stations: Make a few contacts on 50.110 and announce you are QSYing to some other frequency higher in the band, say 50.123. This should prevent you from bumping heads with other DX stations also on .110. Don't go down in frequency or only up a few KH's. The next point — don't allow the pileup to control you. You control the pileup. Tell the pileup you will take certain call districts or countries first. If they don't obey, tell them you will QRT if they don't listen. They will behave quickly once they see you are going to control it.

Pause for contacts from other continents often. If none are heard, go

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back to working the available pileup. Make them adhere to your procedures and it will go much better for you and them.

Hat-JA1VOK says JA's have worked six continents during Oct. 1988! Some contacts, besides the usual Pacific area, are: FT5ZB, 5H1HK; CT, SV and 9H (via long path - Oct. 8-11); CE, CX, LU, PY; V85DA, KH6, KX6DS, KC6NX, KC6SW, WY5L/KH3; and on Oct. 27 - So. W6's and N5JHV-NM. On Nov. 8 - 0800-0815, K6STI by JA7's, and at 0855-N6ND by JA8's! OH2BYW sent JA1VOK a QSL confirming reception only of Hat's Oct. 31 CW signals on 50.110, as Hat called CQ on CW at 1131, 1151,

1159 and 1211 UTC. FT5ZB was open to JA's on Oct. 23 and 31 and Nov. 1 and 2. ZX0F-Fernando de Noronha Is. worked JA5's Oct. 29.

QSL Info

The Americas:

Juan Noguera, P43AS, P.O. Box 2380, San Nicolas, Aruba, South America. Darroi Lockhart, OA8ABT, P.O. Box 52, Pucallpa, Peru.

The Pacific:

Raj Sing, 3D2ER, 10 Le Hunte St., Box 184, Suva, Fiji Islands. Bob Autry, WY5L/KH3, c/o Raymond E. Dobson, N5DAS, 1247 Thomas Sumter, San Antonio, TX 78233. Bob

is now back in San Antonio, but the station and beacon will be kept active by KB5ENR/KH3. Rhett will be there for 18 months.

3D2MP, P.O. Box 5324, Raiwaga, Suva, Fiji Islands. T20AA, Thomas G. Schreckengost, (N4FJL) 8 West Pine Tree Ave., Lake Worth, FL 33463. Rueben Ken, C21RK, Box 139, Nauru. H44DL, P.O. Box 418, Honiara, Solomon Islands. H44GP, P.O. Box 272, Honiara, Solomon Islands. H44GR, P.O. Box 127, Honiara, Solomon Islands.

FO0AQ, P.O. Box 11397, Mahina, Tahiti. Y. Yamasaki, 5W1GP, c/o JOCV Office, P.O. Box 1625, Apia, Western Samoa. Yoshiharu Akimoto, KH0/JA1QGG, P.O. Box 467, Saipan, MP 96950, Northern Mariana Islands. J.B. Smith, VK9NS, Box 90, Norfolk Island, 2899 Australia. Hiroshi Suzuki, P29HS, Rabaul Volcanological Observatory, P.O. Box 386, Rabaul, Papua, New Guinea.

Bob Anderson, KX6BA, Box 294, APO San Francisco, CA 96555 USA. Franz Langner, A35AS, Carl Kistnerstr (DJ9ZB), 19, D-7800, Freiburg, Federal Republic of West Germany. KC6NX and KC6SW via JA2-KVD. Andy, V85DA via VK1DA. YB0QC: Dwi; JI. Taman Daan Mogot 2/30, Jakarta-Barat, Indonesia. YC0FTE: Ino; P.O. Box 77, JKWB, Jakarta 10270, Indonesia.

Europe:

Tiago Frederico, CT1WW, Nagoselo do Douro, 5130 S. Joao Pesqueira, Portugal. R.E. Hide, ZB0/G1CWP, 74 Maple Drive, Burgess Hill, Sussex, England RH15 8DL. Willem Morsink, PA0HIP, Oostendestraat 37, 4826 KM BREDA, Netherlands.

Serafim Matos da Silva, CT4KQ, Estrada da Azenha, 3500 VISEU, Portugal. Manuel de la Torre, EA1MO, Padre Claret 9, Valladolid, Spain. Jan, OH1ZAA (NN0Y and ZF2KZ) was to be active on 6M in mid December. QSL to OH1ZAA CBA. Joe Vella Brincat, 9H1CG, Box 10, Zabbar, Malta.

Africa:

Roy Handley, G3GJQ/5N28, 16 yBryn, Glan Conway, Colwyn Bay, Clywd, LL28 5NJ Wales. Dany, FT5ZB via F6ESH.

6M Beacons

Nov. 9 - A new 6M beacon, PY2AMI, on 50.074, running 5W and a Ground Plane antenna, was into

VE1BNN. Also, the W6SKC/7 beacon on 50.078, running 30W and vertical antenna showed up for the first time. The VK6RPR, West Perth, Australia beacon, was brought down to 50 MHz since many of the VK's can now work the 50 MHz part of the band. It operates on 50.066, 10W to an omni antenna.

Sweden Is On Six

Reports were received from a very reliable SM source that 6M permits have been issued by the Swedish PTT, 25 in all, and were passed on to SARL to issue. The Swedish Society wrote all SM stations that have applied for 6M permits requesting QTH/equipment info. The SARL decision as to which operators get the permits should have been made by now. Power limit is 50W ERP for stations greater than 250kms away from CH2 TV stations and a reduction in power for those within the 250km limit.

Now that OH, LA and SM have been given 6M permission, it is expected that Denmark will soon follow suit. The Luxembourg PTT visited LX stations that had applied for 6M permits and tests carried out for TVI indicated some problems arose. It is hoped these will eventually be corrected, allowing LX to be active on 6M for the next Es season on low power.

Future DXpeditions

Laurence Howell, GM4DMA and XYL Morag, GM1ILL will accompany the Sir Ranulph Fiennes expedition to North Polar regions and will man the base station at Ward Hunt Island. It is located 450 nautical miles south of the North Pole and 450 nautical miles northeast of the Magnetic Pole. They expect to leave Britain Feb. 20 and arrive about Mar. 3. They will be on 50.110 with 25W and 4ele yagi. They will also operate on 144.123 and will generally use the call signs GM4DMA/VE8 or GM1ILL/VE8 on 6M.

The station will operate until at least May, depending on the success of the sledge expedition to the North Pole. GM4DMA is an old Arctic campaigner; he was on last year's expedition and has been on several Antarctic expeditions. During the IGY he received British and French Band 1 TV on South Georgia Island. In 1980 he set up the VP8ADE 28 MHz beacon, which is still performing well.

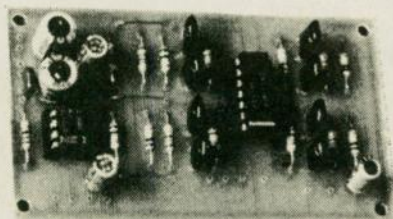
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10-10 INTERNATIONAL News

Chuck Imsande, W6YLJ
10-10 19636

New Officers Elected for 1989

At the Annual Business Meeting, held Dec. 4, 1988, the officers that will lead 10-10 for the next years were elected. The new president is Norm Lefcourt, W6IRT, 10-10 #14981. Vice-president is Morrie Goldman, W6EHM, 10-10 #4189, and Don Hurst, W6AGP, 10-10 #39046, was elected secretary.

The treasurer's office was left open since Gerry Gross, WA6POZ, 10-10 #21274, the nominee, was forced to decline acceptance of his nomination due to personal reasons associated with his job. Gerry has agreed to remain as treasurer, pro-tem, until April 1, at which time his employment will require his move and more of his free time. During this interim period, the new officers will select a replacement for Gerry, who has served faithfully as our treasurer for the past seven years.

Howard Bowman, W6QIR, 10-10 #4905, passed the gavel to Norm Lefcourt after serving 10-10 in many capacities. Howard has been roster manager (1977-1980), President (1980-1982), director (1983-1984) and President again (1985-1988).

Howard has provided 10-10 with untold hours of service and is looking forward to sitting back and having some free time to enjoy operating on 10M. He automatically becomes a director, as ex-Presidents do according to 10-10's bylaws, so he will still have an active part in the operation of the organization.

Our new president, Norm Lefcourt, W6IRT, joined 10-10 in 1975, and has served 10-10 as vice-president for two terms. As vice-president, Norm has been active in all 10-10 affairs and, during the past year or so, headed the *select committee* that undertook the immense job of re-writing the bylaws. He is the chapter head of the QRP net and maintains a 24-hour QRP 10 meter code practice beacon on 28.888 MHz. Norm has many new ideas for 10-10 and will be implementing them as the new year progresses.

Morrie Goldman, W6EHM, our new vice-president, has been a 10-10

member since 1972. Morrie held the job of call area manager for the 6th, 7th and 8th districts (10-10 was so small that one call area manager could handle three or more districts). He was elected president in 1974, and held that position through 1977. As an ex-president in 1978, he became a director and served in that capacity until this election. Morrie has been instrumental in establishing the 10-10 Scholarship Fund, and is the 10-10 contact with The Foundation For Amateur Radio (FAR), the organization that administers the selection of the winners of the two 10-10 scholarships.

Our secretary, Don Hurst, W6AGP,

has been a 10-10 member since 1984, and has served as secretary since 1987. He will continue in that capacity for the next two years.

All together the new officers bring many years of experience in ham radio to the 10-10 organization, and we can expect some great new ideas and programs from this group of dedicated volunteers.

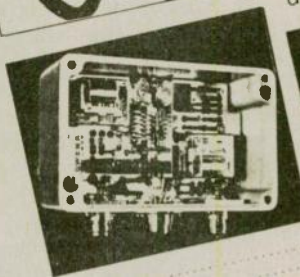
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A few weeks ago I had the good fortune to make a contact (my first) with 4U1ITU, the club station of the International Amateur Radio Club at the headquarters of the International Telecommunication Union in Geneva,



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Switzerland. The ITU is the United Nations specialized agency for telecommunications, accounting for the 4U1ITU's separate country status. The ham shack at ITU Headquarters has just two rooms; hence, it has been called a *Two Room Country*.

On Jan. 12, 1975, 4U1ITU was awarded a unique 10-10 number, #11111, one of the very few special numbers ever assigned. The station earned its number by working the required number (10) of 10-10 stations. The station's level of 10-10 involvement since that time has been a function of sunspot activity. As a result of operating 4U1ITU, many guest operators have become interested in 10-10 and are now 10-10 members themselves.

The information on 4U1ITU was obtained through the courtesy of Dex Anderson, W4KM, 10-10 #6271, who was stationed at the ITU in Geneva from 1978 to 1981, and has been active at 4U1ITU on many occasions. During his tour at Geneva, the last sunspot cycle was at its best and 10M was "fantastic," according to Dex.

4U1ITU was awarded eighteen local 10-10 chapter awards from the United States, and one award each, from the United Kingdom, Costa Rica and The Netherlands.

The shack also became the *flagship* station of the Lake Geneva Chapter of 10-10. This chapter was formed on Feb. 29, 1980 at ITU Headquarters by HB9OP (SK) #22907, FGEAK #25916, OH2TW 27221, HB9BSD/KD4JI #25938 and Dex HB9BRQ/W4KW #6271.

Ted Vogel, HB9OP, #22907, served as both chapter head and certificate manager of the Lake Geneva Chapter until his untimely death in a hit-and-run auto accident near his home out-

side Geneva in February 1986.

Marcel, F6EAK #25916, who now lives south of Paris, has become chapter head and Dex, W4KW, who lives in Washington, D.C. is acting certificate manager.

There is a possibility of 10-10 activity by a 4U1ITU *look-alike* in the Spring of 1989. The highest level of ITU conference, the Plenipotentiary Conference, will be held in Nice from May 23 to June 29. During the last such conference, held in Nairobi in 1982, the Kenyan authorities assigned 5Y4ITU to the amateur station used by the delegates to the conference. At that time, 4U1ITU's 10-10 #11111 was used by 5Y4ITU.

Should a similar ITU-type call sign be assigned by the French authorities during the Conference, similar *remote* use of #11111 will be considered.

Keep your ear tuned for 4U1ITU on 28 MHz and watch for additional information regarding a possible 4U1ITU "look-alike" from Nice, France.

QSL Cards

As a result of the recent 10-10 QSO Party, I have been receiving a number of QSL cards. I know many long-time Amateurs have given up the practice of sending QSL cards, but most will return a card if one is received. I, for one, enjoy receiving QSL cards, as I believe it is just one additional interesting facet of our hobby.

There are several things I look for immediately upon receiving a QSL card.

First is the design. There are some interesting designs that people have come up with, and some that are quite unique, such as the one of a photograph of the middle rear portion of a ladies rear section with "73's" and the call sign tattooed in red ink on the left chunk. Now that was unique and different!

Another thing I check is the prefix, as I am also a prefix collector. There are some unique prefixes out there now and it is easy to collect new ones. I also check to see if the 10-10 number appears on the card.

And last, but not least, I check to see what county the station lives in. Yes, I am also a county hunter.

I mention the prefix, also known as WPX, and the county hunting, because maybe someday 10-10 will also have a 10-10 WPX Certificate and

a 10-10 Worked All Counties Award. If you are a collector of awards, maybe you should be collecting 10-10 Prefixes and 10-10 Counties on the anticipation that 10-10 will someday offer these new awards.

What is your thought on these potential new 10-10 awards? Let me hear your ideas. Even if 10-10 never offers a 10-10 WPX or 10-10 Counties Award, *CQ Magazine* has both awards available. Check them out in the latest copy of *CQ*.

If your QSL card does not have your 10-10 number or your county listed, write them in until you have the next batch of cards printed and then, please have them printed on your card.

Finally

Have you lost your 10-10 number and cannot find your district manager's name? I can help. Drop me a note with *all* of your call signs and I will let you know what your number is. Remember 10-10 numbers are issued for life and yours is in the computer file. Just send me a SASE to the *Lost and Found Department* at 18130 Bromley Street, Tarzana, CA 91356-1701.

If you are not a 10-10 member and would like to know how to become a member, a green stamp (\$1) to the above address will get you an information package. Please enclose an address label if you have one.

73, es cu next month

Another 'bad guy'

Forest Industries Telecommunications (FIT), a trade association of forestry two-way radio interests, asked the FCC to allocate more than the proposed amount of spectrum — 3, not 2, MHz — to land mobile at 220. FIT held this position while at the same time applying to the FCC for permission to become an Amateur Radio *Special Call Sign Coordinator* (SCSC) in PRB-3! (See *Worldradio*, October 1987, page 24.)

Fortunately for amateurs, the FCC disagreed. "We do not believe the benefits of providing an extra MHz for land mobile outweigh the negative impact that it would have on the Amateur Service." — *W5YI Report*

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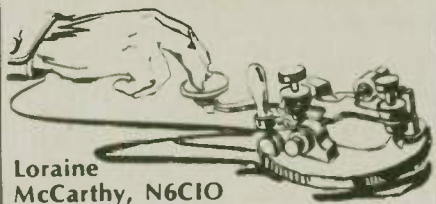
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Code Matters



Loraine
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Let's Get Involved In '89

Here we are beginning a new year in Amateur Radio. So many opportunities are available to each of us to contribute to, and share our hobby with others. Let's get involved in '89!

Upgrades: Perhaps you've been planning an upgrade for some time, but haven't yet done it. Make a study plan and set a goal date for yourself. More privileges on the amateur bands are exciting! In preparation for a code exam, remember to simulate exam conditions as closely as possible when practicing. Give yourself a sample test after each QSO you practice. If you're studying for a theory exam, you can practice the same procedure. Try choosing the correct answer from the four choices before you look at the answer. This strengthens your knowledge of the material.

Examinations: Let's be sure to thank all of our volunteer examiners for a year of hard work in '88. A lot of time and paperwork is involved in processing exams. If you are an Extra class licensee, or General through Extra depending on the Volunteer Exam Coordinator, give some thought to

helping out with an examination. Perhaps you would like to become a Certified Volunteer Examiner. There are many ways to assist a testing team with the exam!

Clubs: Are you a member of your local club? Clubs participate in many community service activities and always need volunteers to assist. Clubs need active officers and folks to plan events and to help with refreshments, newsletters, greeting newcomers, etc. If you are not already a member, you may want to plan a trip to your next local club meeting!

Elmers: Perhaps each of us has a friend who has been thinking about becoming an Amateur. Let's see if we can assist them. Do they need materials, someone to study with or perhaps just some encouragement along the way? Let's identify the missing element and see how we can assist that individual in becoming a ham!

Share Amateur Radio with a youth: Do you know a young person who might be interested in this exciting hobby but may not know how to go about getting involved. Tell them a little about it, give a demonstration and explain how it might relate to the youth's other activities. Be sure the youth has access to the proper study materials. You may not get a new ham

right away, but the youth may develop an interest at a later date.

Emergency groups: Are you a member of an emergency group or are you thinking of joining one? You may wish to become involved in ARES or RACES or a club emergency team. Perhaps your time is limited but you could be available in a greater time of need. This is another way to become involved in Amateur Radio in '89.

If each of us gets one friend involved or contributes in some way, our hobby will grow. Good luck to you in planning your activities this year. If you need information or sources on testing groups, clubs, emergency groups or classes, please write or give me a call.

We will continue in the April issue with more on CODE!

Radio School announces a new 13 WPM Sample Test Tape with sample tests more closely simulating ARRL code exams. If you would like this tape you may order it directly from me: Loraine McCarthy, N6CIO, Code Programs Manager, 315½ Ruby, Balboa Island, CA 92662; or call 714/979-CODE. The tape is \$9.95 plus \$1 for postage and handling. □

Worry grows lushly in the soil of indecision. —Arrowhead RAC, Duluth, MN

ESTABLISH A HAM TESTING CENTER IN YOUR AREA

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

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

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Anyone who has used a direct conversion (DC) receiver like a HW-7 or HW-8, or a simple superhet like a Ten-Tec Argonaut, knows that a good audio filter can really do a lot to sharpen the audio passband in the receiver. What many hams don't take into consideration is that their kilobuck rig can also derive benefits from using a quality outboard active audio filter.

This month, we are going to explore the world of audio processing techniques that will enhance your QRP efforts.

First, let's define a couple of things. Active audio filters are filters which are placed in the AGC loop or the audio output sections of a receiver, and utilize transistors or IC OP-Amps (active devices) to produce a high, low or bandpass response. They have uni-

ty gain and no insertion loss.

Passive audio filters use no active devices. Instead, they rely on LC audio tuned circuits to shape the audio channel, and are powered by the audio produced by the receiver. While the active filters have no insertion loss, the passive filters typically have a 6 dB insertion loss, which results in a noticeable decrease in audio level in the headphones or speaker.

Either type of filter will do the job of cleaning up the receiver audio, within limitations. The passive filters are typically not as sharp as their active counterparts, but are simpler to build and require less parts. The mainstay of passive filters are 88mh torroidal inductors and a handful of capacitors arranged to form audio tuned circuits (fig. 1). The torroidal inductors are normally phone company castoffs, which can be had for pennies. Check out the ARRL handbook for a good passive audio filter using these devices.

Active audio filters utilize one or more IC OP-Amps to form poles of filtration (fig. 2) that can be cascaded to yield extremely narrow passbands with very steep skirts. This is especially handy when mating the active filter to a direct conversion (DC) receiver. The DC receiver, which has no IF strip to provide selectivity, hears many

undesired signals. Adding an audio filter is the ONLY way to reduce the unwanted interference and approach single-signal reception.

Now that we've set the stage, let's see what is available on the commercial scene for active audio filters. If I had only one active filter to use for the rest of my life, it would be the Datong FL-3. This is a third generation active filter marketed by Datong, of Leeds, UK, and imported by Gilfer Shortwave, 52 Park Ave., Park Ridge, NJ.

Datong has long been recognized worldwide as an innovator and leader in amateur radio accessories. Having talked several times with Dr. David Tong, I am very impressed with his dedication to his craft, and the quality of his products.

The FL-3 has an impressive range of features. There are four separate filters incorporated in the small box. First there is a high pass 5-pole elliptical filter, followed by a low-pass 5-pole elliptical filter. Bringing up the rear is a 2-pole, 30dB peak/notch filter. These filters can all be ganged together to form 12 poles of active filtration. Finally, there is a 2-pole auto-notch filter that functions independently from the other three.

Also included in the Datong "magic box" is a record output jack so you can record the processed audio output from the filter. This is especially useful to the SW DXer and serious ham DXer, allowing him to review the tapes at a later time and extract the hard to copy information. The unit is powered from a 12VDC source.

Inexpensive Radio Shack power modules work well. Gilfer SW sells one that will work, or you can power the FL-3 off of your shack's 12 volt buss.

Input/output jacks (including the record output) are RCA-type phono connectors. Two cables are supplied, with one end left unprepared so you can affix your own connectors. The construction is all metal (case and cabinet), which is very resistant to RF fields in the shack.

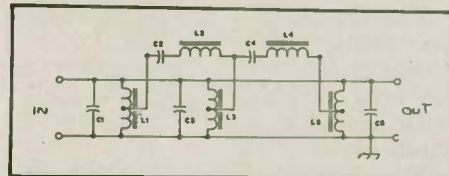

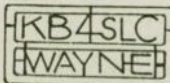
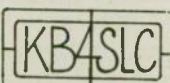



Fig. 1. Simple passive CW filter using 88 Mh Torroids

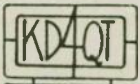
There is an output jack on the front for headphones and this will mute the rear speaker output jack, when headphones are plugged in. The front panel controls allow the user to have dynamic control over the audio channel. High and low pass filters can be


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adjusted to provide just the right cutoff of the audio passband to really enhance your listening. This greatly reduces fatigue due to static crashes, low frequency rumble, adjacent channel interference, heterodynes and poor propagation conditions.

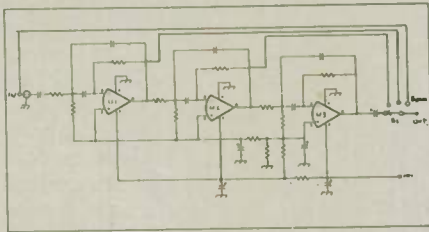


Fig. 2. Generic 3-pole Active Audio CW filter

The beauty of the FL-3 is that there is virtually no ringing when used in the narrow bandwidth mode.

Ringings usually occurs when extremely tight bandwidths, coupled with high-Q filters, are used in combination. The solution is to either reduce the Q of the filter or broaden the passband. You don't have to worry about this with the FL-3. The filters are voltage tuned devices that, due to the linear design of the control circuitry, will not ring.

Another amazing feature is the auto-notch filter. How many times have you been in QSO when some nerd starts tuning up right next to you? Well, with the FL-3's auto-notch, the heterodyne is detected and attenuated by 40 dB within less than one second! Now this is really nice when you are trying to work DX on 40M with Radio Tirana sitting right on top of your QSO!!

The auto-notch is so quick that you can tune in WWV and have the one second time pip tones disappear at the touch of a button. The auto-notch scans the audio channel looking for a heterodyne signal. Once found, it locks onto the offending signal and attenuates it 40 dB in about 500-700 milliseconds.

The auto-notch is non-offensive and you really don't know that it is engaged, except for an occasional very low-level "swishing noise" heard only with headphones. Now that is some kinda high-tech!

The Datong FL-3 is truly the Cadillac of audio filters. There is currently nothing on the market which can touch it in price, features, flexibility and ease of use. You have total control over what you hear in the audio passband of your receiver. Not only do I use mine with the trusty Argonaut 509, but I also hang it on the output of my Icom R-70 worldband receiver. Since I do a lot of SW DXing, the FL-3

is a most welcome accessory.

Remember, when you are trying to dig the weak ones out of the noise on crowded bands, you have to have the best receive audio possible. Since manufacturers are reluctant to design more than marginal audio sections into their equipment, you must take the initiative and procure those add-ons that will allow you to enhance the receiver's audio output. That's where the Datong FL-3 comes in. It is an amazing audio filter. Try an FL-3, believe me, you don't know what you're missing.

The Datong FL-3 can be purchased from Gilfer Shortwave, 52 Park Ave., Park Ridge, NJ 07656, 201/391-7887. Price: about \$230.00 plus shipping.

Back next month with more good stuff. Questions/comments: SASE to Rich Arland, K7YHA, 25 Amherst Ave., Wilkes-Barre, PA 18702. □



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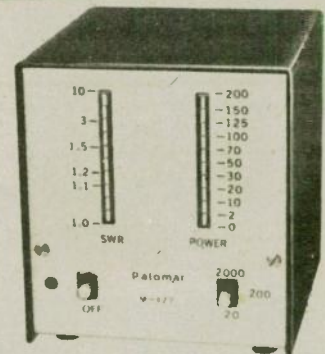


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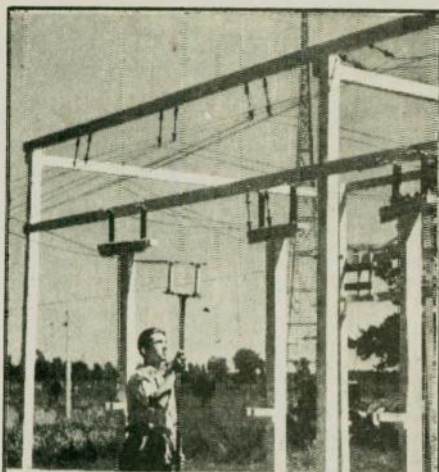
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AERIALS

KURT N. STERBA

For some, LPA means Log Periodic Array. For others LPA can mean Low Profile Antenna. We'll now delve into what may be the smallest practical antennas and how they worked out in the most recent Sweepstakes.

First, we started with a half-wavelength of wire for each band. That was coiled on a pole 12 ft. tall for 75M and a pole 6 ft. tall for 40M. In real life a quarter-wave vertical for 75 is about 62 ft. and for 40 about 33 ft., so you can see we're about 19% of the

length we should be to put it another way, we're at less than one-fifth of a real antenna!

For 20, 15 and 10 the quarter-wave verticals should be about 16.5 ft., 11 ft. and 8.25 ft., respectively. Our Low Profile Antennas were 4.5 ft. (27%), 2.3 ft. (21%) and 1.75 ft. (21%).

Four radials were constructed for each of the 20, 15 and 10M antennas by coiling another half-wavelength of wire on wooden rods, each of which were the same length as the vertical element.

Antennas this size, up on a roof, will not attract much attention. But that would be too easy. We're going to have them just a few feet above the ground. Running an amplifier would be too easy, so we're just going to be barefoot, 100 measured watts.

We could have really checked these out and added or subtracted turns to bring them closer to resonance but that was not done.

The radials for 75 and 40 were just four very short wires each.

The MFJ-949C tuner was used. Our settings were 10M; 2 K 6; 15M; 6 J 2; 20M; 3 K 5; 40M; 3 C 5; 75M; 4 D 6. Tuning was "tight" and the 1:1 point was quite narrow. Excursions made it necessary to touch up the tuning to maintain 1:1 or thereabouts.

How did the littlest antennas work? Alaska to Virgin Islands, Vermont to

San Diego and a VY/NWT. All sections in the 2-3-5-8-9-0 call districts were worked. The total was 66. Bands and Sections were 75M; 7; 40M; 7; 20M; 25; 15M; 14; 10M and 13.

Total contacts were 130. Actually many more contacts could have been made, but I was mainly concentrating on working new Sections. Worked about every Section heard.

Should anyone get the wrong impression, I'd like to make this perfectly clear: This is NOT the route to a band-smashing signal!

The laws of physics being what they are — aperture, capture area and all that — a fifth of an antenna is about that . . . one-fifth of an antenna!

But the demonstration here was what can be semi-accomplished with next to nothing. Note that the vertical element in these antennas was about .05 of a wavelength, not the usual .25!

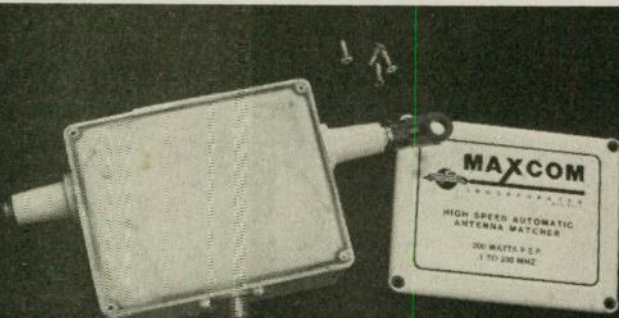
A powerhouse I was not. Some stations never heard me at all. For others many repetitions were necessary to get the exchange across. An odd phenomena I observed was that a very, very loud station would call CQ over and over and never hear me, but a weak incoming signal would answer me and get it all.

There were reports of "You're not very loud." "You're very weak." But I also was able to work two stations in one minute, and four stations in four minutes.

For "Miniature" antennas, they were not bad at all. Now, if there was a "handicap" in the Sweepstakes, such as in golf or bowling, and you compare my score to the stations running 15 times the power with real antennas up in the air, I won. (Well . . . at least a moral victory!).

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A 10M vertical and four radials. The top-loading is a pizza plate. All done in the manner of the late Hashafisti Scratchi. We knew he was looking down and smiled because of what he saw.

antenna. What absurdity can we concoct for the ARRL 10M contest? Empty coffee cans? A bicycle? Bedsprings?

In next month's column we'll be attacking some absolute bunkum that is

in print and on the air.

(Sterba draws a curtain in front of his true identity so that at his radio club he is not confronted with, "What next, a birdcage?") □

Push-pull power amps

Larry Goosby, AA4JI

When one transistor in a push-pull power amplifier stage fails, the circuit becomes unbalanced. This unbalance is very likely to produce changes in the operating conditions of that stage, possibly large changes. Depending on the cause of failure of the transistor, other components in the stage may have been damaged. Most manufac-

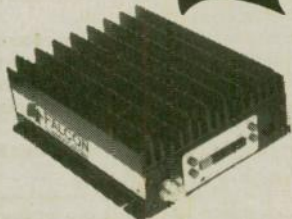
turers will recommend that you replace both or all transistors in the push-pull stage.

It is generally advisable to replace transistors in a push-pull stage with matched components (matched-pairs) even if the service literature doesn't specifically call for a matched pair, thus assuring a good balanced output.

— North Florida ARS, Jacksonville □



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Long-life batteries

Eveready Battery Company is studying consumer applications for a new long-life lithium battery that the U.S. Army was to begin using early in 1988.

The batteries, which will be used to power radios for directing troop movements, last up to three times longer than magnesium batteries, weigh about half as much and can be stored for 18 years or longer. *Manufacturing Week*, 12/21/87.

— Fox River Radio League, Aurora, IL

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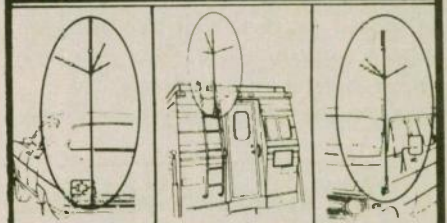
Spider Antenna 

U.S. Patents 4349825, 4460896

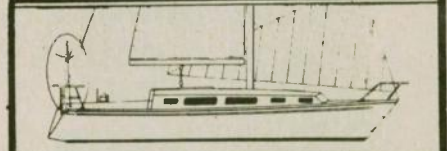
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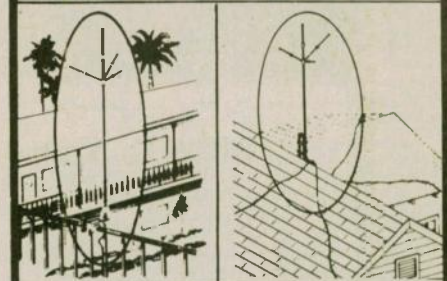
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(continued from page 39)

secretary, Jim Walsh, W7LVN, attended and was greeted by 60 chapter members. Officers elected for the coming year are: Don Crisp, W7ZZN, president; Bob Ver Steeg, W7AZ, vice president and Don Sumpter, W7VOU, secretary/treasurer.

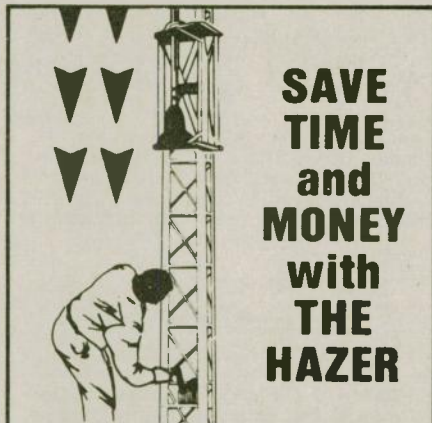
Evergreen is a fine example of the benefits gained from establishment of a QCWA chapter to serve members in a specific geographical area. We apologize for recently omitting Evergreen in listing spin-offs from Northwest Chapter 4.

QCWA Director, Leo Meyerson, W0GFQ, was invited to be the guest speaker at the Christmas Luncheon of Pacific Southwest Chapter IX of the

Ham fraternity meets on Field Day

Kristi Heim

Amateur Radio operators from Long Beach and Downey (Southern California) worked from two different hospitals during Field Day, contacting hams from all over the world.



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Society of Wireless Pioneers. Since many SOWP members also belong to QCWA, the chapter planned a joint venture. The Luncheon was held in Scottsdale, AZ.

In 1977 when the QCWA Scholarship Fund was initiated, the first donor was Cresson Donbar, K4YL. This same member has recently made another substantial contribution. Commencing next year, and continuing each year thereafter, a lucky young person will receive the *QCWA Cresson Donbar Scholarship Award*.

A \$5000 donation to the QCWA Memorial Scholarship Fund establishes a perpetual annual scholarship bearing the name of the donor. □

Downey club members — working from five temporary stations on Rancho Los Amigos Hospital grounds — made contacts with Alaska, Hawaii, Canada and the Virgin Islands.

Long Beach amateurs worked from eight stations at a Long Beach Naval Hospital field. Among their contacts were French Polynesia and Hawaii. They also reached a Monrovia (CA) group via ATV and club members from each group literally watched each other on TV.

Downey club president Fred Hart, who became an active ham operator after he retired, said he has made friends in many parts of the world through radio. A family from the South Pacific islands recently came to Southern California to visit him and other local operators they had befriended over the air.

"I enjoy talking to people anywhere in the country or around the world," he said. "It keeps your mind busy."

—Long Beach Press-Telegram; submitted by Leo Benzini, KU6W □



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YL - OM Contest

Procedure: OMs call "CQ YL" and YLs call "CQ OM."

Operation: All bands may be used. No cross band operation. Net contacts and repeater contacts do not count. A station may be worked and counted once on each band. Participants may work only 24 hours of the time. Operating breaks must be indicated in the log.

Exchange: Station worked, QSO number, RS or RST, state/province/country. Entries in log must also show time, band, date, operating breaks and transmitter power.

Scoring: A. Phone and CW will be scored as separate contests. Submit separate logs for each contest. B. Score each band separately. One point is earned for each different station worked on each band; YLs count only OMs and OMs count only YLs. Add together the QSO points earned for each band. That is your total number of QSOs. C. Multiply the number of QSOs by the total number of different states/provinces/countries worked. D. Contestants running with a power output of 100W or less on CW and 200W PEP or less on SSB, at all times, may multiply the results of C by 1.50 (low power multiplier). The maximum power output that may be used at any time during the contest is 750W on CW and 1500W PEP on SSB.

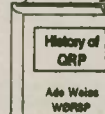
Logs: All logs must show your state/province/country to qualify for awards. For each QSO logs must show the station worked, QSO number given and received, RS(T) given and received, country/state/province of station worked, time, band, and date. Logs must also state the power output used and the operating breaks taken. If you have 200 or more QSO's, submit a separate log for each band and submit a "dupe" sheet. Do not send carbon copies of logs. Please print or type. Logs must be signed by the operator and no logs will be returned. Remember to file separate logs for each contest. Logs must show claimed score and be postmarked by March 15 and received no later than March 31, or they will be disqualified.

Please send logs to: YLRL Vice President, Carol Shrader, W14K, 4744 Thoroughgood Dr., Virginia Beach, VA 23455.

Duplicates: For each duplicate contact that is removed from the log by the Vice President, a penalty of three additional and equal contacts will be exacted.

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Awards: 1st place phone and CW: YL cup, OM cup. The 2nd and 3rd place YL and OM winners in each contest will receive certificates. The winner of the phone contest cup is also eligible to win the CW cup. Certificates will be awarded to the high YL and OM phone and winners of each US and VE call district and country, provided there are at least ten valid contacts on the log.

Suggested frequencies: CW: 80M — 3.540-3.570; 40M — 7.040-7.070; 20M — 14.040-14.070; 15M — 21.120-21.150; 10M — 28.180-28.210.

SSB: 80M — 3.940-3.970; 40M — 7.240-7.270; 20M — 14.250-14.280; 15M — 21.380-21.410; 10M — 28.380-28.410 MHz. □

New Hampshire QSO Party

The New Hampshire QSO Party, sponsored by the NH ARA, will be from 1900Z Feb. 4 to 0700Z Feb. 5, and continuing 1400Z Feb. 5 to 0200Z Feb. 6.

Exchange: Signal report and QTH (county for NH stations, state/VE province/DXCC country for others).

Scoring: All stations count 1 pt. per phone QSO, 2 pts. per CW/RTTY QSO, 5 pts. per Novice/Tech CW QSO. NH stations multiply QSO points by number of NH counties/states/VE provinces/DXCC countries (except US, Canada, Alaska and Hawaii) worked; others multiply QSO points by number of NH counties worked (maximum of 10). No repeater QSO's permitted. Stations may make contact on more than one band or mode. Twenty bonus points may be added to final score for contacting each of the following NHARA member club stations: WB1CAG, N1BYQ, W1FN, WB1GXM, N2BD, W1GUA, W1WQM (for a maximum of 140 bonus points).

Note: For contest summary sheets send a SASE to K11M, 19 Haverhill St., Hudson, NH 03051-4015.

Suggested Frequencies: CW — 1810, 3535, 7035, 14035, 21035, 28035; Phone — 1875, 3935, 7235, 14280, 21380, 28380 (Novice) 50115, 144205; Novice — 3735, 7135, 21135, 28135, 28380 (SSB).

Logs must be postmarked by March 10. Include a large SASE for results.

Send logs and comments to: Mount Moriah Repeater Society, c/o Bud Valcourt/N1BYQ, 19 Teague Drive, Salem, NH 03079. □

Contest tip

Gary Sutcliffe, W9XT

A method I use to improve each year is to keep records of what I do in each major contest. The day after the contest I write down things I did well and things I did poorly. I also record band conditions and equipment and antennas used.

A quick review of this information before a contest will help you avoid mistakes you've made in the past.

—Kettle Moraine Radio Amateurs, Milwaukee, WI □

Bird watching?

It's always hard to explain to outsiders why you pursue the peculiarities of your favorite hobby.

I recently tried to describe to a non-ham what Field Day was about. You know the routine: everybody packs up all their survival gear and runs off into the woods to brave the rigors of nature and Murphy. Then you and all similarly-minded folk frantically search for each other trying to make as many contacts as possible in the allotted 24 hours. Then you pack up and go home. Isn't that an accurate synopsis of our Big Weekend?

The friend's immediate exclamation was BIRD WATCHING! She related that my story exactly paralleled another she had heard from another friend who was into bird watching. They also packed up all their gear and ran off into the woods, spent the weekend beating the bushes for avian contacts, and packed up and went home. Sounds similar doesn't it? The only difference is that they didn't have the birds also searching for them. See — you're not as crazy as you thought. □

—Livermore ARK, CA



DON'T TELL ME OL' CHARLIE DOESN'T DESERVE A RAGCHEWER'S AWARD --- HE WENT TO BED AN HOUR AGO!

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D-68	10/15/20/40/80/160	8	146'	149.95

TRAP VERTICALS—"SLOPERS"—

Model	Bands	Traps	Length	Price
VS-41	10/15/20/40	1	28'	49.95
VS-52	10/15/20/40/80	2	49'	64.95
VS-53	10/15/20/40/80	3	42'	74.95
VS-64	10/15/20/40/80/160	4	73'	94.95

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 Copper/Weld ant. wire and End Insulators, Automatic Band Switching - Tuning usually most required. - For all Transmitters, Receivers & Transceivers - For all class amateurs - One feeding wire all bands - Instructions included - 10 day money back guarantee!

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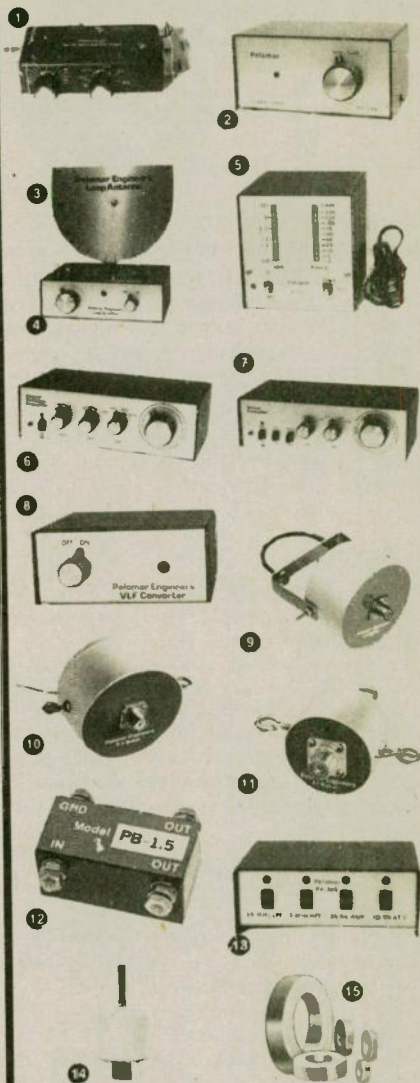
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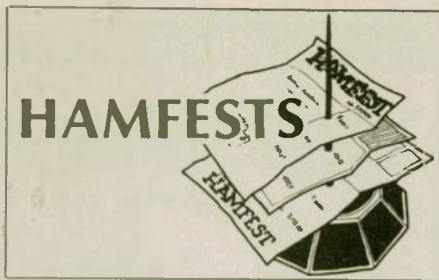


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Colorado

The AURORA REPEATER ASSOCIATION will hold its eighth annual Swapfest on Sunday, Feb. 19 at the Jefferson County Fairgrounds in Golden, CO.

The grounds will be open from 8 a.m. to 3 p.m.

For additional information contact Judi, WD0HNP, at 303/460-1413 or Jan, KA7TYU, at P.O. Box 39666, Denver, CO 80239. □

Georgia

The DALTON ARC will again be holding their annual hamfest at the North Georgia Fairgrounds on February 25.

VE Exams will be available via WCARS VEC at the Western Sizzlin' Steak House across from the hamfest site.

For further info write Darci, P.O. Box 143, Dalton, GA 30722-0143. Info can also be obtained by contacting members via either the Georgia Cracker Net or Georgia SSB Net, which meet daily. □

Iowa

The 18th annual DAVENPORT RAC Hamfest is scheduled for Sunday, February 26 at the Davenport Masonic Temple.

Talk-in on 146.28/88. Doors to the W0BXR hamfest will open at 8 a.m.

The event features a large indoor flea market, food, forums, prizes and ARRL/VEC exams (walk-ins accepted). Tickets are \$2 in advance and \$3 at the door. Tables are \$7 each with an additional \$2 charge if an AC hook-up is required.

For hamfest information, write to Dave Johansen, WB0FBP, 2131 Myrtle St., Davenport, IA 52804. For testing information or pre-registration, write to Al Broendel, N9OK, 2712 38th St., Rock Island, IL 61201. □

Indiana

The Indiana Hamfest will be held on March 12. It will open to the public at 8 a.m.

Sponsored by the MORGAN COUNTY REPEATER ASSOCIATION, the event is held indoors with 60,000 square ft. of space at

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the Indiana State Fairgrounds Pavilion Building in Indianapolis. VEC Exams and Ladies Programs are scheduled.

Admission is \$5 at the door. Eight ft. Flea Market Tables (including space) are \$8 each. No space will be sold without a table. Advance reservations are suggested as tables sold out in last year.

Setup: Saturday, March 11, 3-9 p.m. Security is provided overnight. Sunday setup continues from 6-8 a.m. All vehicles must be out of the building by 7:50 a.m. At this time access will be through the pedestrian door.

Free paved parking is provided. Talk-in will be on 145.25.

For table reservations or information send a SASE before Feb. 24 to Aileen Scales, KC9YA, 3142 Market Place, Bloomington, IN 47403; 812/339-4446. □

Kentucky

A Ham Radio & Computer Swapfest will be held at the Cave City Convention Center on Saturday, Feb. 11.

Setup will begin at 6 a.m. and the doors will open to the public at 8 a.m. Tables are \$5 in advance and \$6 on the day of the fest. Individual admission is \$3 per person.

Talk-in with K4MIQ, Bill Huffman on the



RFC 2-317

144 MHz Amps			
RFC	2-23	2W IN =	30W OUT
"	2-217	2W IN =	170W OUT
"	2-117	10W IN =	170W OUT
"	2-317	30W IN =	170W OUT
"	2-417	45W IN =	170W OUT

220 MHz Amps			
RFC	3-22	2W IN =	20W OUT
"	3-211	2W IN =	110W OUT
"	3-112	10W IN =	120W OUT
"	3-312	30W IN =	120W OUT

440 MHz Amps			
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"	4-110	10W IN =	100W OUT

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For more information call 502/678-3660. □

Massachusetts

Marlboro is the sight for a hamfest sponsored by the ALGONQUIN ARC on Saturday, Feb. 18 from 10 a.m. to 2 p.m. Sellers need to arrive at 8 a.m.

Features of the festivities, which takes place at the Marlboro Middle School Cafeteria, include an Electronics Flea Market. Wheelchair accessibility is provided.

Talk-in on 146.01/61 and 146.52.

Admission is \$2, tables are \$8 in advance and \$10 at the door.

For more information contact Dan, KB1WW, at 617/481-1587; or write AARC, P.O. Box 258, Marlboro, MA 01752. □

New York

The LIMARC hamfest is Sunday, Feb. 5 at the Electricians Hall in Melville Long Island.

Doors are open 9 a.m. to 3 p.m. Admission is \$4 per person regardless of age. \$3 after 11:30 a.m. Sellers 4' x 6' tables are \$12, or bring your own at \$1.50 a foot, 6 ft. minimum. Helpers pay admission.

Registration in advance only, check payable to LIMARC.

Talk-in on 146.85. For more info contact Mark Nadel, NK2T, 516/796-2366; or write 22 Springtime Lane East, Levittown, NY 11756. □

Ohio

The CINCINNATI ARRL '89 Ohio Section Convention takes place Saturday and Sunday, Feb. 25 and 26, at the Cincinnati Gardens Exhibition Center.

The hours are 8:30 a.m. to 5 p.m., both days.

For more information contact Stan Cohen, WD8QDQ, 2301 Royal Oaks Ct., Cincinnati, OH 45237; or call 513/531-1011. □

The CUYAHOGA FALLS ARC 35th annual hamfest will be held at the Akron North High School from 8 a.m. to 3 p.m. Sunday, Feb. 26.

Tickets are \$3 in advance and \$4 at the door. Tables are \$5 and half tables are available. Sellers may bring their own tables. Tables will be \$6 at the door if any are left.

Send an SASE for ticket orders and table reservations.

Plenty of room is provided for buyers and sellers — over 32,000 square ft.

Talk-in on 87/27.

For more information write Bill Sovinsky, K8JSL, 2305 24th St., Cuyahoga Falls, OH 44223; or call 216/923-3830. □

The Mansfield Mid*Winter Hamfest / Computer Show will be held Sunday, Feb. 12 at the Richland County Fairgrounds in Mansfield.

Plenty of prizes are provided and over 300 tables at the flea market.

Doors open to the public at 7 a.m. Tickets are \$3 in advance and \$4 at the door. Tables

are \$6 in advance and \$8 at the door. Half tables are available.

For talk-in call W8WE on 146.34/94.

Advanced Ticket/Table Orders must be received and paid by Feb. 2.

For additional information or advanced tickets/tables send an SASE to Dean Wrasse, KB8MG, 1094 Beal Road, Mansfield, OH 44905; or phone 419/589-2415 after 4 p.m. EST.

Hints for a happy Hamfest

I think that hamfests are one of the most fantastic things that have ever been invented. I always have a great time and would like to give you some advice that can enhance your enjoyment of this aspect of our hobby.

First, you have to acquire the correct attitude. If you are looking for free equipment or to have fun crammed down your throat, forget it. The hamfest sets the mood for a "happy day" and the rest is up to you.

Try to arrive early and attack the flea market first. The best bargains go fast. Some flea market vendors want to get rid of their unused gear at a reasonable price, and some are out to make a profit. If you arrive too late you will only get to meet the second group. The way you walk through the flea market is important.

Upon arriving, a fast walk-through is a good idea. While pondering too long over an infinite supply of ceramic capacitors, a bargain handheld may be waiting a short distance away. After your first run-through you can do it again, looking for the less obvious bargains. Notice I said "bargains." If someone in

a flea market calls you cheap because you haggle over his price, you are not the one who is naive; he is! It's a flea market, not a retail store.

Then again, sometimes it does not pay to shop around too much. If you see something unusual that you really want, keep in mind that if you walk away you may never see it again. Perhaps you should buy it. However, if it's in the "nice to own but I really don't need it" category, offer only what it's worth to you even though it may be only 20% of the asking price. Now and then you will be surprised and walk away with a terrific bargain. The key idea is to look at an item and decide quickly what it is worth to you, and what is the most you are willing to pay. So, when it comes to dickering for price at the flea market, be friendly, honest and sincere, and there will be no hard feelings.

Weeks before the hamfest, make a shopping list. It gives you a purpose. Then as you walk the aisles of the flea market, have a flight plan. Don't wander aimlessly. Try to walk along one side of one aisle to the end. Then turn around and walk the other side. — *Rags Review, Rochester, NY ARNS* □

Mailman: "Is this QSL card yours? The name is obliterated."

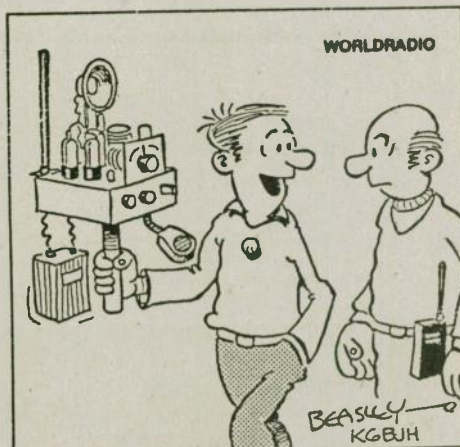
Ham: "It's not mine. My name is Warren."

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NEW PRODUCTS

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

IRI "Tuning Upgrader"

The new Tuning upgraders are here!! This exciting new accessory will allow your TS-440, TS-940 or TS-930 to have three different automatically selected tuning rates.

The slowest rate will be 2.5 kHz per rotation or 5 kHz per rotation of the tuning knob. You select which one by simply changing the position of a plug-in jumper on the tuning upgrader board. When you turn the tuning knob faster than one rotation per second (approximately), the tuning upgrader will "kick" the radio into the medium tuning speed, 10 kHz per rotation (this is the "stock" tuning speed of the radio as it comes from the factory), thereby allowing you to make moderate frequency excursions quickly. A quick spin of the tuning knob puts your radio into the high speed tuning rate, allowing you to traverse from one end of a band to the other in seconds.

The medium and high speeds are a standard function of the radio. The tuning upgraders work with these by providing a new, slower tuning speed (it's like having a big fine tuning knob), while retaining the highest speed-tuning rate that these radios are able to provide.

The tuning upgraders also feature a speed indicator LED built into the unit, which lights up whenever the tuning upgrader "kicks" the radio into the two higher speed tuning rates. This allows you to get a feel of how the tuning upgrader works with your radio before you put the covers back on the radio after installation. Provisions are also made to allow the meter light to provide an external indication of this function, if desired (meter bulb extinguishes when in medium or high speed modes).

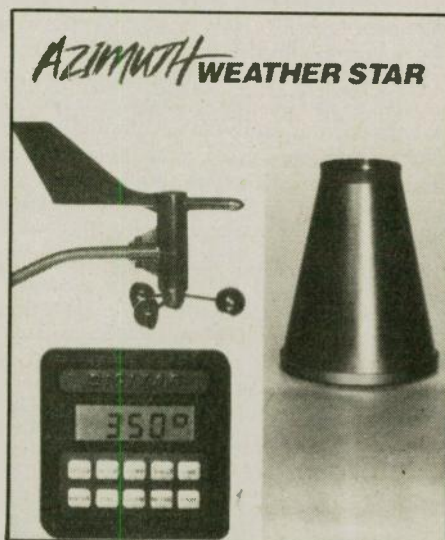
Installation of the TS-400 tuning upgrader is not difficult. It requires one circuit board foil run cut and a minimum of two solder connections. Anyone with a low wattage pencil-type soldering iron and a minimal knowledge of how to solder can do it because the enclosed instructions are clear, detailed, and well illustrated.

Installation of the TS-940 Tuning upgrader is also simple. It requires no soldering or cutting and mounts in an easily accessible area of the radio. If you have had the 5 kHz per rotation mod performed on your TS-940, you may wish to restore this in order to obtain the maximum performance from the tuning upgrader; however, it is not necessary to do this in order to use the tuning upgrader.

Installation of the TS-930 Tuning Upgrader requires some soldering, but is even easier than installation in the TS-440. The clear, illustrated instructions will show you how. If you already have had the 5 kHz per rotation mode performed on your TS-930, this is no problem. Installation of the tuning upgrader automatically restores this modification, allowing optimum performance from the upgrader.

A tuning upgrader in your radio will reward you with operating versatility never before possible. You will be able to fine-tune incoming stations with ease, yet still move across the bands in seconds. Also, the upgraders draw very little power from the radio due to their CMOS circuitry. Provided it is done correctly, installation of a tuning upgrader will not void your Kenwood warranty. If you do not wish to do the installation yourself, International Radio can do it for you.

For more information write International Radio Inc., 751 S. Macedo Blvd., Port St. Lucie, FL 34983; or call 407/879-6869. □



WeatherStar

Azimuth's new WeatherStar Model TWR-3 by Digitar gives you the ability to monitor important local weather conditions affecting your antenna system and shack.

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LCD readout (%) gives you wind direction (2 or 10 degree increments), wind speed (mph or kmh). It also records high wind gusts, external temperature (F or C), wind chill factor and even low temperature and high temperature. Time and daily and yearly rainfall with optional self dumping rain collector (\$49.95) are also included.

The unit's Scan Mode lets you see the data in any sequence you wish. Lab accuracy is plus or minus only one percent. It operates on three AAA batteries (not included). Optional AC adapter, NiCad Battery Pack and desk stand are available.

Easily portable, the unit comes complete with wind vane, anemometer of hi-impact, UV resistant plastic, high quality weather computer unit, and 40 ft. control cable (extendable to 200 ft).

The complete TWR-3 unit is just \$159.95 plus shpg/hdlg. For more information contact Azimuth Weatherstar, Dept. WR, 11845 W. Olympic Blvd., Suite 1100, Los Angeles, CA 90064. □

Antenna Tuner

MFJ Enterprises Inc. announces the release of the new 3kw Roller Inductor Differential-T Antenna Tuner — a uniquely designed T-network tuner that uses a single differential capacitor in place of two variable capacitors. It covers 1.8 to 30 MHz continuously, including MARS and all the WARC bands.

The differential capacitor makes tuning foolproof and easier than ever, because you get minimum SWR at only one setting and have only two controls to adjust. It also gives a broadband response that eliminates constant retuning.

A three-digits turns counter plus spinner knob gives the precise inductance control needed to instantly return to your favorite frequency. The compact 10 3/4" x 4 1/2" x 15" black aluminum cabinet has plenty of room to mount the silver plated roller inductor away from metal surfaces for highest Q and maximum power into your antenna.

A lighted two-color peak and average reading Cross-Needle SWR/Wattmeter lets you read forward and reflected power and SWR at a glance. Plus it has a new directional coupler that gives you more accurate SWR and power readings over a wider frequency range.

A six-position antenna switch allows selection of two coax lines and/or random wires (direct or through tuner), balanced line and



external dummy load.

A new current balun for balanced lines reduces feedline radiation that causes RF in your shack, field pattern distortion and TVI. Ceramic feedthru insulators for balanced lines withstand high voltages and temperatures.

For more information or your nearest MFJ dealer, contact MFJ Enterprises Inc. at

Bank Controller II

International Radio Inc. announces the latest addition to their line of Kenwood TS-940 accessories — the Bank Controller II.

The Bank Controller II is not made to replace its predecessor. Rather, it is made for those TS-940 owners who desire front panel memory bank control without having to access the memory bank slide switch, but who presently have, or plan to have, a voice synthesizer installed. The Controller II allows both memory bank control and voice frequency announcement using the "Voice" Button on the front panel. What's more it also makes the voice synthesizer a more useful accessory by making it announce the memory bank as well as the frequency.

The Controller II operation is quite simple. One push of the Voice Button on the front panel causes it to step the radio to the next consecutive memory bank, and also causes the Voice Synthesizer to announce which memory bank you have selected (this announcement function is user-defeatable). If the voice button is tapped twice in quick succession, the Bank Controller II will keep the radio in the same memory bank, and instead cause the voice synthesizer to tell you what frequency the radio is tuned to and which memory bank it is in.

Installation is also easy. The Bank Controller II mounts right next to the voice synthesizer unit, and plugs right in. No soldering or modification needed.

It uses CMOS circuitry for low power drain, and presents no power drain to the radio's memory back-up batteries because it has a lithium back-up battery of its own, enabling it to remember which memory bank you have selected when the radio is off.

You do not have to have the voice synthesizer installed in your TS-940 in order to use the Bank Controller II. Installed by itself, the Controller II will still allow you to have front-panel memory Bank Control with battery back-up of Memory Bank Data, leaving open the possibility of future installation of a voice synthesizer in your radio.

For more information write to IRI, 751 S. Macedo Blvd., Port St. Lucie, FL 34983; or call 407/879-6868. □

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

KEEP YOUR EYES OPEN! Yes, some very usable items will be found as you drive around town. TV sets — particularly some of the older ones — will yield lots of goodies. You'll find transformers, knobs, speakers, RCA phono plugs, pieces of ferrite, resistors, capacitors and also a bit of copper wire.

Did you ever see a washer or dryer waiting to be picked up by the junkman? Each of these has an electric motor, which in some cases is still usable. Even if the motor doesn't work, it could yield many feet of copper wire. —*Bob Lasater, KA9SEO; Sterling-Rock Falls ARS, IL*

QSO Tutor

With the recent growth of computer interfaces and general usage of computers in the amateur community, the introduction of an interactive study aid for the Amateur exams is an excellent way to both learn and experience the technology necessary to advance in the amateur ranks and become knowledgeable in the use of personal computers. While many programs, both commercial and public domain, have been written for the morse code portion of the FCC/ARRL amateur exams, prior to QSO Tutor no "Study Oriented" programs have been written for the theory portion. In fact only a few theory programs are on the market, and only a couple of these are available for the IBM and compatible machines.

The QSO Tutor provides not only a complete library of all of the questions in the pools for each class, but also the associated figures in full screen, four color, CGA graphics. When using the QSO Tutor, the initial session typically would be a random selection from the total pool of questions. After trying a portion or all of the pool, the user can request a detailed score in which each of the technical sections (ie. Rules and Regulations, Emissions, Antennas and Feedlines, Practical Circuits, etc.) are analyzed individually. Results are provided in a bar graph showing in red the technical sections requiring additional study. In subsequent sessions, the user can select these sec-

tions in which to concentrate study; only appropriate questions will be presented.

Any session can be interrupted and started again at a later time. In fact, up to 40 sessions can be maintained concurrently. The user also has the option to resume where he left off or to review any questions missed in the previous sessions.

Sample tests can be taken and will be randomly generated from a seed using the PC's system time. Millions of sample test combinations exist and each will be comprised of the appropriate number of questions from each segment of the pools. An analysis of the sample tests is also available showing detailed percentages by area and suggesting areas for additional study.

QSO Tutor is sold for each class: Novice Technician, General, Advanced and Extra. The Extra version contains the question pool effective Nov. 1, 1988.

QSO Tutor is written using MicroSoft's Compiled QuickBasic* and runs on IBM Compatible PC's with CGA, EGA or VGA graphics capability and at least 256K memory. The program will run on monochrome graphics monitors in black and white, and will run on monochrome text monitors without graphics capability; however, figures are eliminated in this mode.

For information write QSO Software, 208 Partridge Way, Kennett SQ., PA 19348; or call 215/347-2109. □

(please turn to page 61)

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Ham Radio Outlet
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The 1989 Callbook Supplement is a new idea in Callbook updates, listing the activity in both the North American and International Callbooks. Published June 1, 1989, this combined Supplement will include thousands of new licenses, address changes, and call sign changes for the preceding 6 months.

Every active amateur needs the Callbook! The 1989 Callbooks will be published December 1, 1988. Order early to avoid disappointment (last year's Callbooks sold out). See your dealer now or order directly from the publisher.

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New Products

(continued from page 59)

The VOICE BOX

QRZ Industries announces the VOICE BOX and the MINI VOICE BOX — two unique stand-alone operating accessories designed especially for DXers and contesters. The VOICE BOX is to SSB what a memory keyer is to CW. It digitizes and stores an operator's own voice. Once stored, a voice message can be instantly recalled to call CQ or repeat any other desired phrase. The VOICE BOX replaces clumsy, inflexible mechanical devices such as an endless tape loop with a flexible, solid-state microprocessor-controlled device.

A total of eight different phrases and operator voices up to a total of 32 seconds can be recorded. A voice message can be played back once at the touch of a button (or footswitch) or repeatedly played back with an adjustable pause between messages. If a response (such as an answer to a CQ) is received, the VOICE BOX aborts repeated playback until prompted to start again.

The VOICE BOX is flexible and efficient. A voice message is approximately the length of time the microphone PTT is depressed during a "recording." The allotted time for each individual phrase is NOT fixed or limited to an absolute amount of time except for the 32-second total limit. When a voice message is deleted because it is no longer needed, the memory it used is immediately freed up to record new phrases, while preserving all the other existing voice message. This "soft-sector" approach to memory usage results in a maximum amount of flexibility and voice message time for the operator(s).

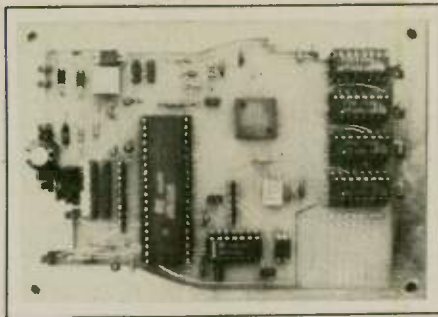
The VOICE BOX uses a 32 kHz sampling rate and several filters for high-quality audio. It automatically keys the PTT line to your transmitter or transceiver during playback and also allows normal VOX operation. It has a switchable built-in microphone preamp to accommodate a wide variety of microphones, and the audio output level to the transmitter is continuously adjustable.

For those who do not need the sophistication of eight reprogrammable voice message channels, the MINI VOICE BOX is available. It has all the features of the regular VOICE BOX except that it has one voice message channel with up to eight seconds of message time.

Currently, the VOICE BOX and the MINI VOICE BOX are being shipped in kit form only. The kits consist of assembled, tested, working boards with complete instructions for installing the board in a suitable enclosure. Some standard off-board components (pushbuttons, toggle switches, microphone and power connectors, etc.) are required to complete a unit and are available as an option. It usually takes about an evening or two for the average builder to put a unit together.

Unfortunately, due to the current RAM (memory) shortage, VOICE BOX boards are being shipped without memory. Four plug-in 41256 (any speed) RAM chips are required to make the VOICE BOX operational (only one 41256 for the MINI VOICE BOX). These are readily obtainable in small quantities.

The introductory price of the VOICE BOX kit is \$95. The MINI VOICE BOX kit price is \$55. The optional off-board components op-



tion is \$20 for the VOICE BOX and \$10 for the MINI VOICE BOX. To order, send check, money order or COD to QRZ Industries, P.O. Box 160, Piedmont, SC 29673. Add \$10 for shipping and handling and \$5 for COD orders. SC residents add 5% sales tax. Please state name of publication where seen when placing order or requesting information. □

Telephone autopatch

Communications Electronics Specialties Inc. has announced their new model 510SA-II telephone autopatch for amateur radio fixed station and repeater applications. The 510SA-II is a full featured microprocessor controlled automatic telephone interconnect system that can be configured to operate in a simplex sampling mode for amateur VHF or UHF fixed stations. It may also be applied at the repeater site in a half or full duplex mode for mobile initiated calls.

Other 510SA-II features include multi-digit DTMF connect code, activity timers, time out timers, CW ID and toll restrict and disconnect override code, all programmable by use of any DTMF telephone with a special security access code.

Other features are remote base station operation enabled by special security code and repeater logic control for making a repeater with autopatch capability out of two transceivers. The unit is reverse patch capable with automatic ringout upon receipt of an inbound call.

Additional information on the 510SA-II autopatch or other CES DTMF microphones, interconnects and accessories is available by contacting the CES Sales Department at 800/327-9956 or by writing CES at 931 S. Semoran Blvd., Suite 218, Winter Park, FL 32792.

Solder splatters: Use silicone heatsink compound to improve heat transfer on screw-on type of soldering iron tips.
—Dave Guimont, WB6LLO, North Shores ARC, San Diego, CA

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SUBSCRIBE TO THE DXers Magazine. Gus Browning, W4BPD, editor. Only \$15.00 per year. *The DXers Magazine*, Drawer DX, Cordova, SC 29039.

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STAMP COLLECTORS! Send SASE for worldwide Ham Radio stamp price list. WB4FDT, HAMSTAMPS, P.O. Box 833, West Hartford, CT 06107.

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Advanced Concept Development — 50	Gene Hansen Co. — 58	QCWA — 36
Alinco — 25	GGTE Morse Code — 30	Radio Engineers — 26, 43
American Lightwave — 17	Glen Martin Engineering — 54	Radio Place — 49
Anne Wright, N6BOP — 39	Ham Radio Outlet — 32, 33	rf concepts — 56
Antennas West — 6, 11, 14, 17, 28, 31, 36, 48, 54	Handi-Tek — 43	RLD Research — 7
Antennas, Rudy Plak — 3	Henry Radio — 2, 47	Sign-On — 8
Antique Radio Classified — 54	ICOM — 64	Spi-ro Mfg. — 55
AXM Inc. — 40	IMRA — 20	Spider Antennas — 40, 53
Bel-Tek — 31, 46	International Radio & Computers, Inc. — 52	Synthetic Textiles, Inc. — 34
Butternut Electronics — 19	Jun's Electronics — 41	The Lanz Company — 10
C.A.T.S. — 56	Kagil Dustcovers — 23	The Radio Works — 11
Callbook — 60	Kilo-Tec — 15	TimeKit — 42
Computeradio — 22	Long Island DX Bulletin — 61	Van Gorden Engineering — 4
Courage Center — 46	M&S Communications — 14	Visit Your Local Radio Club — 37, 38
Creative Control Products — 48	M. Bohnhoff — 42	Visit Your Local Radio Store — 59
Cushcraft — 29	Maxcom — 52	W5YI-VEC — 49
Dayton Hamvention — 16	MFJ — 13	W9INN Antennas — 34, 39
Diamond Systems, Inc. — 45	Mike Forman — 63	WD9IIX — 23
Engineering Consulting — 51	Mission Communications — 22	Wheeler Applied Research Lab — 44
EPO Software — 20	Motron Electronics — 15, 44	Wrightapes — 34
Falcon Communications — 53	N6KW QSL Cards — 4	Yaesu — 5
Fallert's Engraving — 7	P.C. Electronics — 21	
Gem Quad Products, Ltd. — 28	Palomar Engineers — 6, 18, 27, 51, 55	

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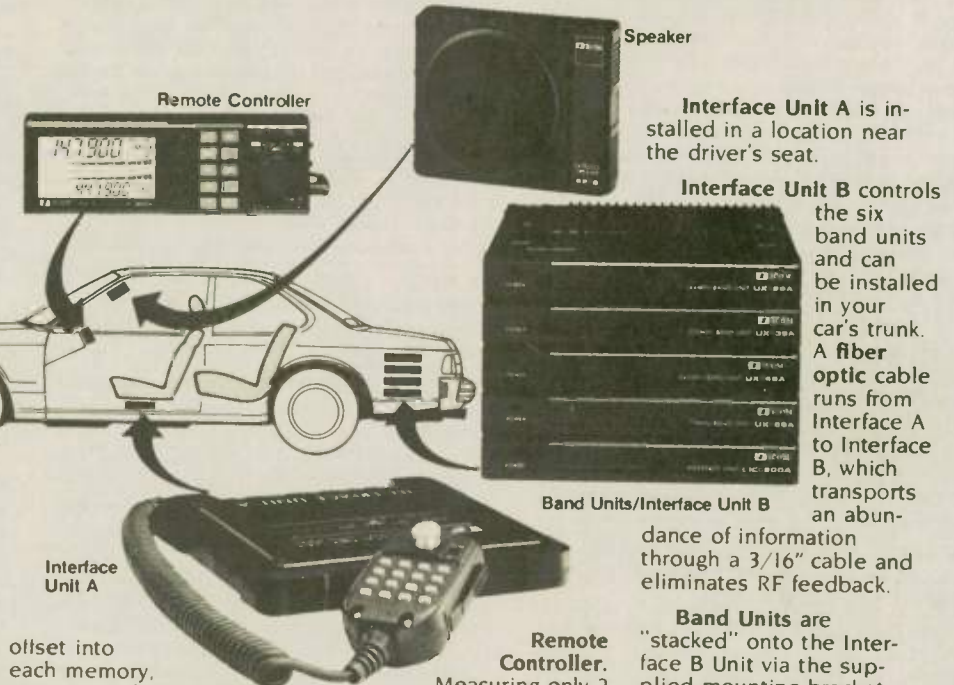
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