Emergency Communications • Public Service • International Friendship

Worldradio

Year 27, Issue 4

October 1997 • $1.50

MACAU

ASIA ZONE 24

CR9AK

This August 2-5 1968 activity by members of the Hong Kong Amateur Radio Transmitting Society was made possible by the courtesy of Fernando de Macedo Pinto. CR9AK. Please qsl to Box 542, Hong Kong. For all other contacts please qsl to CT1BH.

Date	GMT	MHz	Radio	Mode	RS
Aug. 1968				2xSSB	

HERB VS6AD
PHIL VS6DR
TAIZO JA3AER

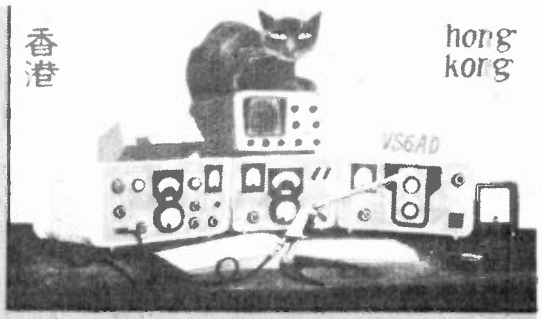
MD2AC

Tripoli - Tripolitania
Libya
North Africa

Phone - CW
Sigs wkd at
GMT on
QRG
Cond
Ant
Transmitter:
Receiver:
Remarks:
QSL
TNX
73s

JON E. GALLAHER
1950 AACS
APO AE 231
NYC-NY

STATE CALL
W4LQQ
RFD-4 Cochran, Ga.



KENYA COLONY B.E.A.
Box 264 NAKURU

VQ4RF

RFB FEATHERSTONE

Station OZ7SM
Fréquence 14 MHz
Console 58-7

FI8AC

Ex F8MT
c/o R. E. F. SAIGON
R. E. F. PARIS

Emetteur
Récepteur
Antenne

Paul BOUCHER

REF

G/OZ7SM operating from St. Lucia

J6/OZ7SM

Ex VS6AD, DJ0SB, W4/OZ7SM

NA-108

Radio		
	Date	GMT
MHz	Two-Way	RST

Park Farm, Goncott Hill.
Tanworth - in - Arden.
Warwickshire, B98 9EN. England.

PSE/TNX QSL via OZ Bureau Direct 73. Herb

BARBADOS

8P9FB

TRIESTE FREE STATE

MF2AA

EX. G3BQZ - I1AZS - XAFQ

RADIO	QSO DATE	GMT	FONE	M.C	CDX
OZ7SM	18-4-45	0900	0584	14	QTC

P QSL E

REMARKS Many thanks QSL for QSO. Vy 73

XMTR. 100 W. 807 807 TP 85

ANTENNA Windom M-S

MAJOR M. H. R. CARRAGHER
HQ V. G. Police
TRIESTE

RCVR HALLICRAFTERS SX 28

Shakespeare's County

WAB SP06

G/OZ7SM

Ex VS6AD, DJ0SB, W4/OZ7SM

Park Farm, Goncott Hill.
Tanworth - in - Arden.
Warwickshire, B98 9EN. England.

QSO WITH	DATE	TIME	BAND	MODE	RS(T)

E/TNX QSL via OZ Bureau Direct 73. Herb

KARLSRUHE - GERMANY

DL4ZG

ARMAND SAURIN
3, AVENUE D'ESPAGNE
T A N G E R

TO RADIO OZ7SM
CONFIRMING OUR 14 MC QSO Phone
ON 22 NOV 51 AT ... GCT, YR SIG WR
QSA 5 RRK 8
CONDITIONS Good
TX 120 - REC SW3 ANT Doublet
GD DX 55 TKS QSL
BEST 73
ARMAND

EK1AS

MD5DA

from Egypt

DX QSLs courtesy of OZ7SM

RADIO MARINA AMATEUR RADIO CLUB

Mi3US

NEWSFRONT

Worldradio

Some information has been supplied to *Worldradio* Newsfront courtesy of *Newsline*.

W8JK makes contact

The *Columbus Dispatch* newspaper comments that if you mention the new science-fiction movie "Contact" to Dr. John Kraus, W8JK, he will respond by asking if anyone saw his books in the film. This is because in pursuit of realism the film's set dresser contacted Dr. Kraus for advice and purchased $500 worth of his textbooks to fill the shelves in the movie scenes.

For those of you not aware, W8JK is an 87-year-old professor emeritus of electrical engineering at Ohio State University. He built OSU's "Big Ear" radio telescope in Delaware, Ohio, in the 1950s. Although that instrument pioneered the search for the extraterrestrial life program, film producers set the action at radio telescopes in Puerto Rico and New Mexico. Amateurs who have seen "Contact" say that it is probably the best picture so far this year. —*via Columbus Dispatch*

ARRL special event callsign administrator

Meantime, the ARRL will volunteer its services as a special event call sign and common data base coordinator. The Leagues' Board approved a motion to submit such a request in response to a recent FCC invitation.

The League's request will express the society's interest in serving as a special event call sign coordinator at no cost to the applicants. The League says that it will cooperate with other groups or individuals the FCC might also select to serve as coordinators. Among other things, the League says that it will work with them to develop common guidelines to govern the reservation of special event call signs. —*via ARRL*

Time to standardize connections

It's time to standardize the way ham gear is connected so that hams can easily mix and match equipment in their stations. So says the ARRL board in calling for the convening of an industry standards conference. This, to explore what it calls the adoption of common interconnection standards for Amateur Radio equipment.

The Board says that adoption of common standards would reduce the cost and complexity of Amateur Radio stations. But this in itself could be the very reason you may never see any agreement on standardization with the ham industry. This is because standardized interconnects would mean that all brands of gear would be plug and play compatible with any other brand. Manufacturers fear this would dilute brand name recognition and reduce overall sales.

Equipment specific peripherals such as power supplies, microphones, batteries, battery chargers, antenna tuners, phone patches and the like are sources of major income to primary equipment manufacturers as well as second source suppliers. By keeping interconnects proprietary, manufacturers tend to force brand name loyalty. If interconnects are ever standardized, industry fears that brand loyalty, and the profits that come with it, could be lost. —*via ARRL, others*

Mir TNC power failure

If you are wondering why you had problems making packet contact with the Mir Space Station, U.S. Astronaut Mike Foal, KB5UAC, has the answer. According to Foal, they once again lost power to their old TNC and all of the log messages in memory went away.

KB5UAC says in a message sent to the worldwide Amateur Radio community that he hopes the space station will get new TNC with memory protection later this month. —*via AMSAT-BBS*

CADXA scholarships

The Central Arizona DX Association has awarded three $500 scholarships. The winners of the Mike Zussman, WA7NIY, CADXA Memorial Scholarships were:

Brian Benjamin Dong, N7LJV, Tucson, Arizona. Brian plans to attend Cornell University.

H. William Fogle, KC7FVZ, Mesa, Arizona. He plans to attend Vanderbilt University.

James T. McDonald Jr, KC7EFP, Phoenix, Arizona. James plans to attend Arizona State University.

Congratulations and best wishes to these scholarship winners. —*Mike Fulcher, KC7V*

Amateur Radio aids in biker's rescue

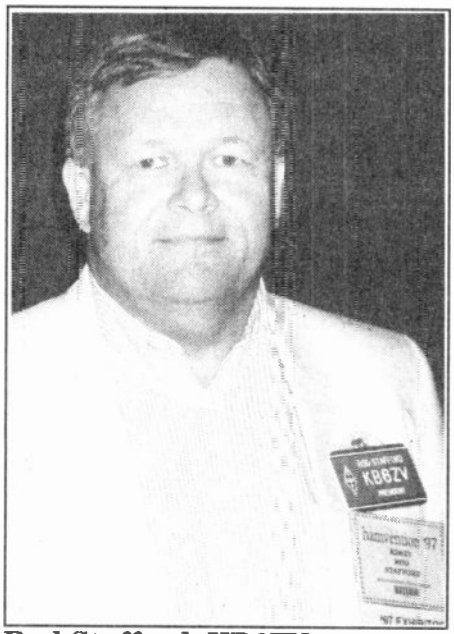
Mountain biker Tom Thompson is grateful for Amateur Radio, which played a vital role 3 August in getting him prompt medical attention after he was injured during a ride in Pennsylvania's Lehigh Gorge. Ham and paramedic Joe Cummings, N3SQR, of Warrington, Pennsylvania, was biking with his daughter in the area when they came upon Tom, seriously injured with broken bones and facial injuries. Joe used his HT and the Carbon Amateur Radio Club repeater to reach Ann Keiser, KO3M, who called 911 and got help on the way. Tom was especially fortunate that an amateur found him, since the area where he was injured is outside the normal range for cellular telephones. —*Amy Zimmerman, KD3TI*

Mir award

Those who have worked the Russian Mir space station on both voice and packet are eligible to receive a Mir Achievement Award, an 8x10-inch certificate suitable for framing. A $10 donation includes all shipping and handling costs. Send a QSL or postcard with your name, address, and call sign to Mir QSL manager Dave Larsen, N6CO, Box 1501, Pine Grove, CA 95665; e-mail doc@volcano.net. Larsen reminds hams not to call Mir on voice until they hear Mir calling CQ.

KC5VCF wins medal

The US Army has awarded Alfred Fronefield, KC5VCF, the Military Outstanding Volunteer Service Medal for his volunteer service in 1995 and 1996. Among other things, Fronefield was cited for having logged more than 100 volunteer service hours at the San Antonio chapter of the American Red Cross, for using ham radio to help coordinate a search for a missing woman, and for alerting authorities and helping to manage traffic following a multiple car accident. The citation said that Fronefield "characterizes the selfless attributes of a fine humanitarian and professional soldier." Fronefield, who's stationed with the Army in San Antonio, is active with Bexar County (Texas) REACT Team 4950. He's scheduled to ship out to Germany for a three-year tour. —*Lee Besing, N5NTG*



Rod Stafford, KB6ZV

ARRL needs money

Is the ARRL once again coming close to running in the red? Last year the national society admitted a shortfall of over a half million dollars. Now, the ARRL Board of Directors has authorized President Rod Stafford, KB6ZV to appoint an exploratory committee to determine the best way for the League to pursue the development of endowment funds. This, says the board will be to maintain certain essential ARRL activities despite budgetary pressures.

The ARRL is already asking for separate donations from the Amateur Radio public. This, to keep its publication of materials for the scouting programs rolling from its presses and into the hands of young Boy Scouts and Girl Scouts, nationwide. —*via ARRL, others*

Titov's U.S. call

Russian Cosmonaut Valdimir Titov has become a U.S. licensed amateur. Titov, now KD5AOS, took his test at a Clear Lake Amateur Radio Club test session on Saturday, 10 May. In September Titov is scheduled to go on a shuttle mission that will dock with the Mir. Talk about a call sign perfect for an amateur in space – KD5 Acquisition Of Signal. —*via AMSAT, ARRL*

Jamboree's new hams

The recently-ended National Boy Scout Jamboree at Fort A. P. Hill in Virginia yielded 37 new or upgraded licensees. The breakdown included two Novices, 28 Technicians and seven Tech Plus licensees. K2BSA/4 operated from the Jamboree on most bands. — *ARRL Letter*

Congratulations to David A. Crise, N3GPM,

winner of a $200 gift certificate (redeemable from MFJ). His name was selected at random by the computer from the ***Worldradio*** subscriber list. Check here next month to see if your name has been selected.

Worldradio
October 1997

News & Features

Departments

Next month's columns will include Amateur Satellites, County Hunters, RFI & You, Traffic, and Youth Forum

Worldradio

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Worldradio (USPS 947000) is an international conversation. You're 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. Articles for consideration may be submitted through the U.S. Postal Service or e-mail to armond@delphi.com

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STAFF: Editor & Publisher—Armond Noble, N6WR; Assoc. Publisher—Glen Rudesill; Associate Editor—Norm Brooks, K6FO; Advertising Director—Helen Noble; Advertising Manager—Brenda Evans; Graphics Director/Advertising—Dianne Dunning; Circulation Manager—Marcia McZeek; Administrative Assistant—Beth Habian.

Publisher's Microphone

A famous actress, who has won an Oscar, an Emmy and a Tony is at a swank party at a Manhattan penthouse. She overhears one of the guests say he is a ***Worldradio*** SuperBooster. She, starry-eyed, goes over to him and says, "May I have YOUR autograph?" They dance into the night.

The latest to become Lifetime Subscribers are:

•Akihiro Otsuka, JF1PJU, Tokyo, Japan

•James Hall, Jr., KE4AGT, Huntsville, AL

•Dave Reynolds, KE7QF, Tempe, AZ

•Zork Briggs, KK6DW, Bonita, CA

•Sam Lipson, KO6JR, Martinez, CA

•Charles Zuttermeister, N6TNX, Valley Springs, CA

A reader wrote in saying that he received his Technician license in September 1962. He went on to say, "I subscribed to *QST*. After reading the first few issues, I realized that the ARRL didn't consider me an amateur, so I never renewed my subscription."

I guess it's all the way one looks at things. Next year I will have been licensed for 40 years. The first ten were spent as a Technician. I was an ARRL member and had an OES appointment. The VHF column by Ed Tilton was of great interest as was the VHF column in *CQ*. I had ham friends of all license classes who seemed to consider me an amateur as they invited me to their home and on Field Day, etc. Only once did I ever encounter any pointed remarks about being a Technician, to which I replied, "I also have an FCC 1st Phone, do you have one of those?" The answer was a sheepish "No."

And I have never "subscribed" to *QST*. I've been a proud "member" of the ARRL and the magazine comes as one of the many benefits of membership.

As I remember, I'm fairly certain the very reason there is a Technician license at all is that the ARRL lobbied the FCC for its establishment.

•

Another reader (and when you receive a letter you assume that there are also many others who feel the same way) said, regarding our reporting on the annual International DX Convention that he didn't care to read about the "in" crowd. Well, I know many members of both the Northern California DX Club and the Southern California DX Club and feel that their thinking that they are the "in" crowd is the furthest thing from their minds. Who determines who is in and who is out? Is there a list somewhere?

Actually, if someone just shows up at that convention they will find a warm welcome, as DXers are a most gregarious bunch. At the cocktail party, the banquet, sitting next to each other at the seminars, etc., no one looks down his or her nose at the new attendee. In fact the very opposite is true.

By and large, the Amateur Radio operator is a pleasant person and welcomes and enjoys the company of other like-minded people.

On nearly the same subject, many may not attend the ARRL Division conventions because, "I won't know anyone there." They shouldn't worry about that. At the dinner, for example, conversations flow freely between those who were once strangers.

•

Another letter writer thought that the reason that many were dropping out of Amateur Radio was the cost of the equipment. That may be more perception than reality. Drag out an old ham magazine from many years ago. Look at the prices, and compare to what people made then.

Relative to today's income, the gear has never been less expensive. And there aren't tubes burning out all the time! And, used equipment can be purchased. The other night I pulled a 20-year-old Atlas 210X transceiver off the shelf and put it on the air. That rig has been through many years of Field Day, many contests, much bouncing around and is as good as the day it was new. I think the used price is around $200.

•

One thing that those letting their licenses expire should think about is: There may come a day when golf, tennis, etc., is no longer possible. How nice it would be to have something to fall back on that is challenging and, most importantly, keeps you in touch with people.

— Armond, N6WR

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"Looks like Yaesu did it again!"

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    - TX:144~148, 430~450 MHz
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  - AM Aircraft/Public Safety Receive
- CTCSS Encode/Decode
- DCS Encode/Decode
- CTCSS/DCS Tone Search
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Dubois Middle School students, amateurs and teacher Betty Bigney, on the big day of contact with Columbia pilot Susan Still. *— photo by Donna Reid, N3LAK*

SAREX STS-94 mission's best contact

Donna Reid, N3LAK

"We have one minute until contact!" was the statement from our Houston Amateur Radio uplink to the shuttle, Columbia. Everyone in the auditorium became silent. Then came the call and Susan Still, the pilot of Columbia, came on the air to talk to our students.

The whole process started about two years ago, in 1995, when Abbott Reid, N3JOT, an Amateur Radio operator and Betty Bigney, a DuBois area school teacher, got together to begin the application for contact with the shuttle. After filing the required paperwork, we waited and waited for confirmation. Finally, in the winter of 1997, Abbott received a call from Frank Bauer, KA3HDO, AMSAT Vice President of Manned Space Program about an Amateur Radio contact with the Russian MIR space station. We were ready to begin setting up our equipment and notifying the media, but that fell through when there was a fire and subsequent problems on the space station. Shortly thereafter, Abbott and Betty received another call from AMSAT stating that the SAREX mission STS-94 and the Microgravity Science Laboratory (a reflight, with the same crew, of the shortened STS83 mission of April of this year) was "a go" for us at the DuBois Middle School, if we were still available. Of course the answer was an enthusiastic "YES!"

From that moment on things moved at a fast pace. Betty did a wonderful job, organizing a contest for questions to ask the shuttle, getting the school open for the summer (Thank you DuBois Area school district), involving the entire community, and notifying the media, to name just a few things. Abbott proceeded to extend an invitation of participation to the entire ham community through his attendance at meetings, submissions for newsletters, and announcements on local nets. Abbott, his wife, Donna Reid, N3LAK, and daughter Vickie Reid, AA3OT; as well as Dave Crise, N3GPM; and Deb Crise, NV3B, donated radios, antennas, an autopatch and other equipment through Cook Forest Trading Post of Sigel, Pennsylvania, and Crise Electric, of Vowinckel. They then organized and set up the equipment to make the whole contact a success.

Once the shuttle lifted off on 1 July 1997, we realized our dream was to come true. We were scheduled for 14 July 1997, so we had much to do in the two short weeks left. The equipment was tested and retested, and there were backups for the backups. Betty contacted *The Courier* newspaper from DuBois, PA, and *The Progress* newspaper from Clearfield, PA. There were local spots on radio stations WOWQ 102 and WSDN 106.5, both of DuBois, PA, and WMKX 95.9 from Brookville, PA, and the television stations WTAJ in Altoona, PA, and WJAC from Johnstown, PA.

Questions were submitted and judged, twenty-one of the best were picked, and several others were chosen to be used as alternates, depending on the length of time we had with the shuttle. Also, our AMSAT mentor, Bill Boston, N3DCI, of Maryland was in constant contact with us to help with anything else we needed. We received final confirmation of the contact being scheduled for 14 July 1997 at approx. 9:20 a.m., with pilot Susan Still using Commander Jim Halsall's call sign KC5RNI, and Vickie Reid, using her call sign AA3OT, operating the radio for the school.

Finally it was 13 July 1997 and we had our final practice with the kids. A call was placed to Bill Boston, N3DCI, our SAREX mentor, in Maryland for all of the students to practice asking their questions. The excitement was building with the kids talking faster and faster, and more and more quietly. This was one thing we really had to practice, as most of the kids had never used a microphone before, but as always is

the case, the kids caught on quickly, and did very well — if only the contact tomorrow would go as well. So we "closed up shop" so to speak and went home to, hopefully, get some rest.

On the morning of 14 July 1997, Abbott, N3JGT, Donna, N3LAK, Vickie, AA3OT, and Dave, N3GPM, arrived at the DuBois Middle School at 7:00 a.m. to start setting up and testing the equipment one last time. Also offering his help today was Kevin Snyder, KA3YCB. To make the day more memorable, ID badges, certificates, and photos of the Columbia crew were given to the children who were asking the questions. Everyone was nervous, although for different reasons. The kids were worrying, "Will I speak clearly and loudly enough?" Betty Bigney — "Will it be a success?" Abbott and the group — "Will the radio connections work?" It even meant more since we had not received the chance to talk to MIR, and from what we understood this would be the last SAREX mission for over a year.

By 8:00 a.m. the news media was arriving, setting up and interviewing people, and Josh Fustine (a talented young man who attends the middle school) was working frantically to connect the school's microphones to the PA system for live remotes by the radio stations, the TV crews to record, and the audience to hear; as well as working to connect the school's satellite system for the whole auditorium to view NASA Select TV during the morning. On final count, there were well over 150 people in attendance.

All during this time, the amateurs in DuBois (N3JGT, N3LAK, AA3OT, N3GPM, and KA3YCB), as well as Frank Bauer, KA3HDO, in Maryland, Brian Zemba, N1WSO, and Larry Dietrich, WD8KUJ, in Houston (using the call sign of W5RRR) were checking the patch to make sure of a clear connection. We could not go direct because the shuttle's orbit was over the southern U.S. After some trial and error, due mainly to noise we were finally able to gain the desired connection. Fear and concern were slowly being replaced with "we're going to do it!"

Time seemed to pass quickly and before we knew it Vickie Reid, AA3OT, was asking the first question to pilot Susan Still on the shuttle: "How does Amateur Radio play a part in your daily life on the space shuttle?" Susan replied, "We use Amateur Radio for fun and to talk to our families." Then the children were asking their questions ranging from "How do fires burn in space?" (to which Susan answered that they burn in a sphere, not like a pointed flame on Earth) to "What do stars look like in space?" ("...(they) are brighter but do not flicker," replied Susan Still). Before we knew it W5RRR said, "We've lost contact with Columbia. Congratulations DuBois on an outstanding contact, the best of this mission." As quickly as it had started, our contact was over. To see the kids' faces light up as their questions were answered made the whole contact worthwhile. As one girl said, "It's not every day you get to talk to the shuttle in space; we may never get that chance again." Another said, "It's a once-in-a-lifetime chance. It was great!" Happily, all 21 children whose questions were chosen got to ask them, and were answered, and we were told that ours was the best contact with the shuttle during the entire SAREX mission!

Everything had fallen into place, we had an eight-minute fifty-four second contact, and the whole process was a great success. It was over all too soon, and if asked, "Would you do it again?" you would hear a resounding "YES!" **WR**

Vickie Reid, AA3OT, talks to Columbia pilot Susan Still. *— photo by Donna Reid, N3LAK*

E-mail:
w4zc@macconnect.com

FCC consumer assistance line

The FCC's consumer assistance number in Gettysburg, 800/322-1117, is being discontinued. All calls now should go to the new, toll-free number, 888-CALL FCC (888-225-5322). For the time being, calls to 800-322-1117 will ring over to the new number after a little message that informs the caller of the change. —*ARRL, FCC*

ARRL Board supports amateur spectrum protections, band plans, VE rules changes

The ARRL Board of Directors has resolved to support legislation that would provide statutory protections for ham radio frequencies. The action came as the Board met July 18 and 19 in Rocky Hill, Connecticut. In taking this action, the Board cited the potential threat to Amateur Radio bands from the federal policy of selling spectrum to the highest bidder.

In a separate action, the Board voted to seek primary Amateur Service allocations of 5650 to 5725 MHz and 5825 to 5850 MHz in the 5650 to 5925 MHz band that is now a secondary allocation.

Voluntary band plans would be referenced in the FCC's rules under another board action. Noting the erosion in the level of compliance with the various band plans, the board voted to petition the FCC to amend the amateur rules to state that hams "should be familiar with, and should abide by" voluntary band plans that apply to the frequencies they use.

Electronic aps get priority

Vanity call sign Gate 3 opened on August 6, 1997. Like the others, we presume it will remain open indefinitely.

The FCC announced that it will process electronic applications *ahead* of paper applications each day. Previously, the FCC did not distinguish in how it handled electronic and paper Form 610V applications. In recent months, the FCC has been receiving more electronic applications than paper applications. The FCC says it will process electronic applications, then paper applications received on any given day.

The FCC also has established a firm deadline for receipt of application fees to accompany electronic applications. After Gate 3 opens, fees for electronic applications must be received by the FCC's fiscal agent, Mellon Bank, within 10 days of the date of application or the application will be dismissed. Under the FY 97 schedule, which becomes effective September 15, 1997, the vanity application fee will jump to $50.

Applicants can find the electronic Form 610V on the FCC's Web site at http://www.fcc.gov/wtb/amradsrv.html. Electronic applications require a Form 159 for any method of payment. Mail payments accompanying electronic applications to Federal Communications Commission, Box 358994, Pittsburgh, PA 15251-5994.

Paper applications require an

Amateur Radio Call Signs

The following shows the last call sign in each group to be assigned for each VEC Region under the sequential call system as of 5 August1997.
For more information about the sequential call sign sytem, see Fact Sheet PR5000 #206-S dated August 1996, or contact the Federal Communications Commission, Consumer Assistance Branch, 1270 Fairfield Road, Gettysburg, PA 17325-7245, toll-free 1-888/225-5322.

Radio District	Group A Am Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
Ø	ABØGA	KIØJM	++	KCØBTZ
1	AA1SO	KE1IF	N1ZQF	KB1CET
2	AB2EB	KG2MD	++	KC2CGN
3	AA3QA	KF3AF	N3ZUB	KB3BUN
4	AF4EN	KU4JD	++	KF4TOA
5	AC5NN	KM5LF	++	KD5BYY
6	AD6CP	KQ6QW	++	KF6NCP
7	AB7WE	KK7JF	++	KC7YYH
8	AB8AZ	KI8DJ	++	KC8IIB
9	AA9US	KG9KZ	++	KB9RGM
N. Mariana Is.	NHØB	AHØAY	KHØGT	WHØABI
Guam	==	AH2DD	KH2SA	WH2ANT
Hawaii	AH7V	AH6PC	KH7FV	WH6DEF
Amer. Samoa	AH8O	AH8AH	KH8DK	WH8ABF
Alaska	ALØF	AL7QU	KLØKC	WL7CUK
Virgin Is.	++	KP2CL	NP2JR	WP2AII
Puerto Rico	NP3M	KP3BC	NP3PY	WP4NNK

== New prefixes are available for this block, but none have been issued. ++All call signs in this group have been issued in this district.

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FCC Form 159 if payment is by credit card or if the application package contains multiple applications being paid for with one check. Individual applications do not require a Form 159 if payment is by personal check or money order. Send paper applications containing payments to Federal Communications Commission, Box 358924, Pittsburgh, PA 15251-5924.

To avoid processing delays, applicants should make sure the information on their license is up to date. If you have changed your name or address, you must file Form 610 with the FCC to request modification of your license to show the correct information. In the case of a club station, you must file Form 610B.

Gate 3 opened the vanity call sign program to Advanced class amateurs. The FCC has not said when it will open Gate 4, for General, Technician Plus, Technician and Novice class operators. For more information, call the FCC's toll-free Consumer Information line at 888-225-5322 (CALL FCC). Please note the 888 area code!

FCC okays commercial HF messaging system

Over objections from the ARRL and several other parties, the FCC has given a conditional go-ahead to Flash Comm Inc. to build and operate a nationwide, commercial, two-way short-data messaging system on HF. The grant, under Part 90 of the FCC regulations, would be on a secondary basis. The frequencies Flash Comm intends to use do not fall in any current ham bands. The League strenuously objected to the plan, however. The ARRL's primary objection stemmed from the fact that some of the frequencies Flash Comm plans to use fall within potential HF band expansions at 30, 20 and 17 meters and close to a potential new ham band at or near 5 MHz. The League said that it would drop its objections to Flash Comm's petition if the frequencies now under consideration for expanded ham allocations were dropped.

All of those who commented on the petition opposed it, fearing unacceptable interference in the HF spectrum. However, the FCC's Wireless Telecommunications Bureau said Flash Comm presented "a compelling case" that the new service "will be a unique and cost-effective way to monitor public and private property and infrastructure." Under the Flash Comm system, so-called "intelligent transceiver units" would be installed on vehicles as well as on structures. Transmitted data would enable the service to track the location or monitor the status of the "asset." Transmissions would be in short bursts averaging two seconds on unoccupied HF channels the Flash Comm system would select automatically. Radiated power would not exceed 1 W, although individual transmitter outputs could be as high as 15 W. The Commission said authorizing the system would provide valuable data for the FCC to evaluate plans to establish permanent rules for these sorts of operations.

The authorization, which involved some rules waivers, is for five years. Flash Comm has petitioned the FCC to establish rules to provide regular authorization of this type of service.

Privacy bill could affect scanner certification

A bill introduced by Rep. Edward Markey of Massachusetts that's intended to add privacy protections for consumers using the nation's communication networks has caught the attention of scanner enthusiasts and some amateurs.

One clause in the bill, HR 1964, the Communications Privacy and Consumer Empowerment Act, would expand electronic privacy provisions in the Communications Act from the cellular telephone service to all Commercial Mobile Radio Services (CMRS). It would do this by prohibiting FCC certification of devices capable of receiving these frequencies. The CMRS is a relative new umbrella designation of subscriber-based radio services that act like telephone services. Such services include commercial paging services, commercial air-to-ground services, cellular telephone, offshore radiotelephone, personal communication services and specialized mobile radio services. The bill includes digital transmissions in those services.

While the apparent purpose of the change is to ensure the privacy of "telephone" conversations, scanner enthusiasts fear that a worst-case outcome could be to inhibit, if not block completely, the further certification of scanning radios. This could include ham transceivers with out-of-band receiving capability. Such radios must receive FCC certification to be sold legally. Designing cost-effective devices to filter the proscribed frequencies could prove difficult for manufacturers.

The ARRL met with Congressman Markey's staff in Washington to express Amateur Radio concerns about HR 1964. The League presented in-

formation demonstrating what frequencies would be affected and the impact the bill could have on Amateur Radio public service activities.

"We learned several things," said Steve Mansfield, the League's Legislative and Public Affairs Manager. "First, our suspicions were confirmed that, as a Democratic bill referred to the Republican controlled Commerce Committee, the bill has very little chance of passage in its present form."

The *ARRL Letter* quoted Mansfield as saying the League contingent also found out that members of Congress do pay attention. "We explained that, in addressing privacy concerns, the bill casts too wide a net and could hurt Amateur Radio interests," he said. "Rep Markey's staff listened attentively to our concerns and invited us to help them craft language to address the problems we outlined, which we are doing." Since provisions within the bill could still be picked up and put in other bills in this or subsequent sessions of Congress, we felt the bill still required changes."

The *ARRL Letter* further stated that according to Colin Crowell, Markey's Legislative Assistant for telecommunication issues, the provision in question was intended to provide some privacy protections for fee-based "telephone" type services (especially the new PCS service) between now and the time providers are able to develop robust digital and encryption technologies to ensure privacy. *—tnx ARRL Letter*

Vanity update

The FCC in Gettysburg issued a report on vanity call sign applications processed during June. The FCC received 418 electronic applications and 232 paper applications during June. It granted 210 new call signs. Several hundred applications remained in the work in process (WIPS) stack, which FCC personnel have continued to process.

FCC acts on dish preemption

(Ed. note: We have reported before on this topic, as it is a possible bellwether for similar action on amateur antennas, apropos of "PRB-1".)

The Federal Communications Commission acted on Tuesday, July 22, to preempt a local Kansas law restricting the installation and placement of receive only direct broadcast satellite dishes.

The FCC said the Meade, Kansas, ordinance requiring a dish installer to obtain a permit and city approval on the placement of the dish conflicted with the commission's preemption rule. The Federal Communications Commission's Cable Service Bureau preempted the ordinance saying "it conflicts with a federal rule in this area." It said Meade's permit provisions are not justified by safety or historic reasons, and also delayed or prevented installation of home satellite dishes.

In taking this action, the FCC has put the teeth of enforcement behind its 1996 rule that prohibits local government or private restrictions on the installation or use of satellite dishes that are one meter or smaller in diameter. It's not known if Meade city planners will challenge the FCC decision in the federal courts. *—tnx ARN*

Radio Amateurs Canada to review HF bandplan

The Canadians say that proposals emanating from the U.S Amateur community will impact their current band usage. According to Ken Pyke, VE3OGM, the objective that Radio Amateurs Canada has in mind is to formulate a comprehensive and workable HF band plan for Canadian Amateurs which takes into consideration Regions 1 and 3's HF band usage. Pyke says that The Radio Amateurs Canada High Frequency Band Plan Committee is looking for committee members, hopefully two from each Region, who would be willing to help evaluate input from all HF interest groups including SSB, CW, AM, digital and slow scan amateur TV. Pyke adds that Radio Amateurs Canada will be looking for this input from the overall Canadian ham community as soon as they have the committee members in place. *—Radio Amateurs Canada* **WR**

Navy-Marine Corps MARS CW is back

Benny Owens, K5KV

Tonight was a night worth waiting for! In a recent Chief Navy-Marine Corps broadcast, the Chief Navy-Marine Corps MARS announced that DOD (Department of Defense) has no objection for CW use on MARS frequencies for unofficial use and practice. (No emergency/official messages are authorized in CW.) In short order, we have four nets working again in Louisiana. While I can't give out the exact details, those in south central states will hear one at 2100 CDT just a few kHz above the 80M amateur band. After a week out of town, it was nice to hear a message passed by CW from another MARS station to a Navy-Marine Corps station for relay on the digital network.

No I'm not hung up on CW for the ... of it. I was NECOS of a Navy-Marine Corps voice (SSB) net earlier this evening and couldn't hear many of the stations on the net. With similar conditions (local thunderstorms) I was able to copy a multi-address message sent three hours later via CW. It's really true that CW can get through better than SSB.

Yes, I know that not all amateurs can read CW through the noise, but those who can find it easier than SSB. We had the messages passed with some chat time after the net. I've seen voice nets take longer to handle less traffic. Maybe the wisdom of using a system that works makes sense after all.

CW, never dead at K5KV, is now revived at NNNØLGN. *—via Packet*

Improving your operating techniques

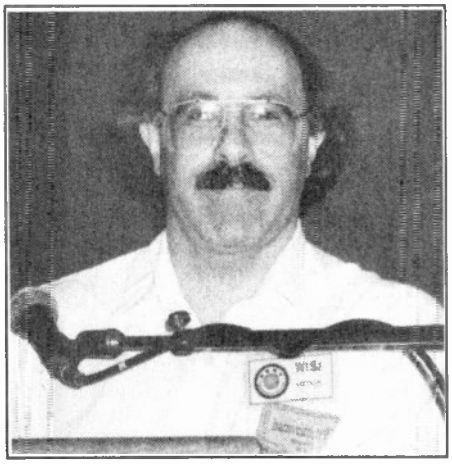
Norm Brooks, K6FO

Are you newer Radio Amateurs finding that operating your equipment is not as much fun as you anticipated? Do you find yourself frustrated in your attempts to operate? Perhaps you would find the answer to your difficulties if you had attended the forum "Operating Techniques of the Best Operators" that was put on by Mitch and Ronni Stern, W1SJ and KA1NRR, at the Dayton Hamvention on 16 May 1997.

In a segment entitled "Techniques to Maximize Radio Fun," Mitch pointed out that Amateur Radio is really a learning experience. We must make ourselves *learn* how to know what to expect and how to make things go along to our satisfaction. The first way to learn it to *listen*. This is especially true on high frequency SSB. Some find SSB to be strange sounding. It really isn't if you have the signal tuned in properly.

The second skill to learn is *how to speak*. Remember Amateur Radio is not like a telephone. You are not guaranteed to hear and be heard 99% of the time. You've got to learn to speak clearly and distinctly — and sometimes to even slow down. You *must* learn proper phonetics — it is not an option. You might be able to get away with cute phonetics on FM, where the fidelity is better, but on HF SSB you should use the proper international phonetics when differentiating between F, S, or X; or V, G, B, E, C, or Z. Don't mumble when you're on the air. Get right up to the microphone at the proper distance. Have the microphone control set properly — too high and your signal will splatter, too low and people won't hear you well. When conditions are bad, speak more slowly, and emphasize the important words. This is true both on HF and on FM repeaters. Even the repeaters have some bad coverage spots. When giving your call sign, always give your full call sign. Sometimes in a contest, the distant operator will ask for only the last two letters, but he is misinformed. However, humor him.

Become a master of the frequencies. What's that? You should understand what propagation is all about. Do you want to talk to somebody 150 miles away on ten meters? That's



Mitch Stern, W1SJ

almost impossible in springtime. If you want to communicate with a particular part of the world, there are probably only one or two bands that will do the job, and at particular times of the day. Look at and become familiar with propagation charts in the Amateur Radio magazines (see DX Predictions on page 27). This even applies to VHF. If you want to communicate with a certain area, be sure you are using the right repeater.

HF operation is like a landscape filled with mines and booby-traps. They're called nets, windows and special operating frequencies. If you stumble on to them, what will happen to you is probably worse than a land mine — you will meet the "channel cop" who will waste no time in escorting you away from the net or the DX window or whatever. Be flexible — avoid this situation if you can. It's your job to co-exist.

Ronni Stern, KA1NRR

Your next requirement is to have equipment that works properly. If you have a bad mike connection, a loose antenna connection, if your audio is distorted, etc. it makes operating a lot more difficult and more frustrating. If something is broken, fix it.

Take every opportunity to teach others good operating habits. They call this being an "Elmer." Under any name it's a good idea, because in coaching others, you will learn new things yourself.

The last suggestion is to *practice*. Get on the air often and practice, practice, practice. One way to get in a lot of practice is to get into a contest. There is an Amateur Radio contest of some kind just about every weekend. The best of these is Field Day.

The next segment, presented by Ronni, was "Improve Your Repeater Operating Skills."

Your first requirement in FM repeater operating is to have your audio level correctly set. Different voices have different power levels. The distance from you to the microphone comes in here too. If someone tells you to back off from the microphone, pay attention. You are probably over-deviating. Set your mike gain properly. Get help to do this if you have to.

Next, be sure your signal is good. If you're not getting into the repeater solidly, you may be having equipment problems.

Talk in short bursts, not monologues. This is the opposite of HF operation, but is more like normal conversation. It also gives others the opportunity to break in to report an emergency, or simply to join the conversation. For this reason, repeat-

ers have time-outs. If you can't fit your conversation within a, say, 90 second time-out, you probably have too much to say. On the other hand, if you have nothing to say, don't say anything!

Just as on HF, if conditions are poor, speak more slowly and enunciate clearly. People who normally speak fast should remember to slow down, even on FM radio. Put an extension speaker on your radio so that you can hear better. Speakermikes are not always good.

Let's look at some things you should do and shouldn't do. Don't over-identify. Have you heard operators give their call sign on every transmission? What a waste of air time! You need identify only every ten minutes and at the last transmission. Have you heard "W8XXX for ID"? No kidding? We know he is sending his call sign to identify, so why say so? Even worse: "For identification, this is ..." We used to be required to say who we are talking to, but no more. And we'll hear some saying "in the group." Why waste everyone's time?

Next Ronni asked if you had ever heard someone say something funny and then say, "hi hi"? If it's funny, just laugh naturally. "Hi hi" was designed to use on CW to indicate laughter, not to be used anywhere else. We hear "on the side." What does this mean? Standing by? Monitoring? Sounds like an order in a restaurant.

How about 73s, best 73s or seventy-thirds? We all know that 73 stands for "best regards." That makes these best regards's; best best regards's and 70/3 or 23 1/3. What do these have to do with Amateur Radio? How about "negative," or "negatory"? Why not say "no"? For "affirmative," why not just say "yes"? How about "land line" or "twisted pair" when referring to the telephone? Some say "The first personal is" or "the handle is." Why not say "my name is"? Then there's "I'm destinated" when you've reached your destination. We have operators, alone in their car or radio shack who say "we." I like to ask them if they have a mouse in their pocket. If you're alone, just say "I."

How about the use of "Q" signals on the repeater? They were designed to be a shorthand on CW. The bottom line is that we should use English only on the repeater. WR

Avoid the ZAPP!!

Jim Keightley, K7NPS

Some people have all the luck! However, this does not neces sarily mean good luck. I was reminiscing the other night about a colleague who was working on a very old AM broadcast transmitter. In spite of a person's desires, sometimes you have to "work 'em hot" to troubleshoot the problem.

As I recall, the conversation during this incident went something like this.

" . . . I'll just put a jumper around this interlock so I can take a few voltage readings. Hold that meter so I can read it and ground that lead to the cabinet. That terminal is going to be hard to reach with those other connectors so close but if . . . .

F+L+A+S+H

Man! That was impressive! . . . ."Yeah, some flash all right . . . ." "No, I mean that hunk of skin you left on the corner of the cabinet there when you were getting out!" " . . . Not funny. Stop your fool laughing and hand me a band aid. On second thought, make it a compress.

"The boss is sure going to be mad about his meter. That test probe disappeared. Nothing left but the plastic."

Funny to talk about now, but the consequences could have just as easily been fatal.

I am well aware that there are times when we must get circuit readings to be able to determine the source of problems. This occasionally involves getting into circuits operated at very high voltages. I have been there often. But there are methods that will give us a much better chance of survival and I highly recommend their use. Let's talk about a few.

1. The only safe H.V. circuit is one that YOU have de-energized and bled! There can be no greater surprise than the flash and crack from a capacitor that has not been properly discharged by a bleeder resistor. The jerk you give when this occurs can lead to a large lump on the head when the cranium meets the cabinet at high speed.

2. Set the meter in a location where it can be read without you holding it, connect the leads to the cold circuit, then with the "off" hand in the hip pocket (to check the tendency to touch something) turn on the power. When I say this, I can hear the collective groans of those who want to hurry the process. They may rightly point out that there is a delay of several minutes until the H.V. circuits "time on." This is usually true. However, if you are working a trade then you are likely being paid by the hour. No need to be in a hurry, of course, the General Manager of a radio station will have a different idea, but it isn't his life on the line! If this is your own amplifier, keep in mind that this is a hobby, and not worth dying for.

3. Record the reading. Let's face it. By the time you have taken several readings, they may get mixed up in one's memory. A pencil and pad are wonderful troubleshooting aids.

4. De-energize, discharge, and move onto the next test point.

To be sure, I have drawn some pretty good arcs in my life and have been more than just lucky to have survived. But I feel that I have remained in the "trade" into my sixties by being patient and ultra conservative around high voltage.

Please be careful! I want very much to meet you at the next hamfest. WR

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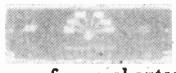

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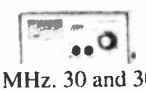

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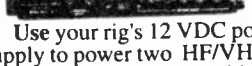

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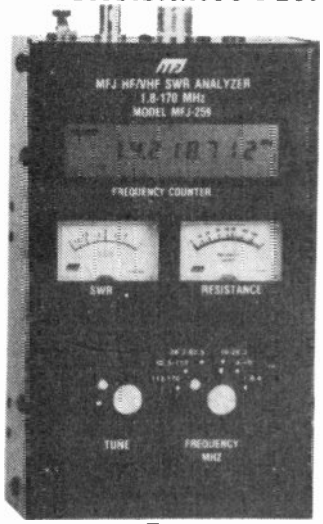


MFJ-259
$239.95

If you work with antennas, MFJ's revolutionary new *SWR Analyzer*™ is the best investment you'll ever make! Now you can diagnose a wide range of antenna problems instantly with one easy-to-use instrument.

What the MFJ-259 Does

The MFJ-259 gives you a complete picture of your antenna's performance anywhere between 1.8 and 170 MHz -- you can even check SWR outside the ham bands without violating FCC rules. Set the bandswitch and tune the dial--just like your transceiver. SWR is displayed instantly!

RF Resistance Meter™

Does 2:1 SWR mean 25 ohms or 100 ohms? *The new MFJ-259 tells you at a glance!*

Now you can measure RF resistance up to 500 ohms at minimum SWR -- instantly -- on MFJ's *exclusive* side-by-side RF Resistance and SWR Meters!

Take the guesswork out of building matching networks and baluns for your antennas.

Watch the effects of spacing on radiation resistance as you adjust your antenna.

Here's What You Can Do . . .

Find your antenna's true resonant frequency from the shack.

Tune the antennas on your tower and watch SWR change instantly as you make each adjustment. You'll know exactly what to do by simply watching the display.

Tune critical HF mobile antennas in seconds -- without subjecting your transceiver to high SWR.

Measure your antenna's 2:1 SWR bandwidth on a single band, or analyze multiband performance over the entire spectrum from1.8 to 170 MHz!

Measure inductance, capacitance, resonant frequency of tuned circuits, transmission line velocity factor/impedance/loss.Test RF chokes, transformers, baluns.

Adjust your tuner for a perfect 1:1 match without creating QRM.

And this is only the beginning! The MFJ-259 is really *four* test instruments in one: an accurate RF signal generator, a high resolution 170 MHz frequency counter, *RF Resistance Meter*™ and an *SWR Analyzer*™.

Free Manual

MFJ comprehensive 18 page instruction manual is packed with useful applications -- all explained in simple language you can understand! **For** free manual write or call MFJ.

Take It Anywhere

The MFJ-259 is fully portable, powered internally by 8 AA batteries or 110 VAC with MFJ-1312B, $12.95. It's in a rugged all metal cabinet that's a compact 4x2½x6¾ inches. Take it to remote sites, up towers, on DX-peditions -- anywhere your antennas are located.

For rough service, pick up a convenient **MFJ-29B**, $24.95, padded carrying pouch to keep your MFJ-259 close at hand and looking like new.

How Good is the MFJ-259?

MFJ SWR Analyzers™ work so good, many antenna manufacturers use them in their lab and on the production line -- saving thousands of dollars in instrumentation costs! Professional installers and technicians use them worldwide.

Get More by Paying Less

With the MFJ-259, you get full 1.8 to 170 MHz coverage, simple operation, instantaneous readings, a high accuracy frequency counter and MFJ's exclusive *RF Resistance Meter*™-- all for a low $239.95.

1.8-170 MHz *SWR Analyzers*™

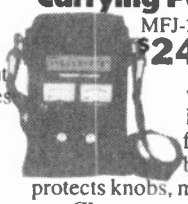
MFJ-249
$219.95

MFJ-249 *HF/VHF SWR Analyzer*™. Same as MFJ-259 but less RF resistance meter. Includes 10-digit LCD frequency counter, *full* 1.8-170 MHz coverage and smooth vernier tuning.

MFJ-209
$109.95

MFJ-209 *HF/VHF SWR Analyzer*™ is same as MFJ-259 without LCD frequency counter and RF resistance meter. Has jack for external frequency counter, smooth vernier tuning.

Carrying Pouch with Window



MFJ-29B
$24.95

Tote your MFJ-259 /249/209 *SWR Analyzer*™ anywhere with this custom Carrying Pouch. Made with a special foam-filled fabric, it cushions blows, deflects scrapes, and protects knobs, meters and displays from harm.

Clear protective frequency display and window cutouts for knobs let you use it without taking it out of pouch. Fully adjustable webbed fabric carrying strap has snap hooks on both ends. Wear around waist or over shoulder.

Keep your analyzer safe and looking new! **MFJ-29**, $19.95, no window or cutouts.

Dip Meter Adapter

MFJ-66
$19.95

Plug a dip meter coupling coil into your *MFJ SWR Analyzer*™ and turn it into a sensitive and accurate bandswitched dip meter.

With a dip meter you'll save time and take the guesswork out of winding coils, measuring inductance and capacitance, measuring velocity factor and electrical lengths of coax. Determine resonant frequency of tuned circuits and measure Q of coils. Set of two coils cover 1.8-170 MHz depending on your *MFJ SWR Analyzer*™.

440 MHz *SWR Analyzer*™

MFJ-219
$99.95

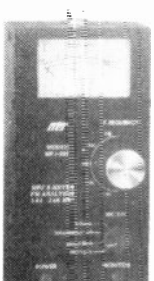
Read SWR of any antenna 420 to 450 MHz -- just plug coax of your antenna into SO-239 connector, set frequency and read SWR. Uses microwave integrated circuits and microstrip technology. Jack for external frequency counter. 7½x2½x2¼ in.

MFJ-219N, $99.95, sames as MFJ-219 but with "N" connector.

MFJ-219 uses 9 volt battery or 110 VAC with MFJ-1312B, $12.95.

MFJ 2 Meter *FM SignalAnalyzer*™

Measure signal strength over 60dB range - Check and set FM deviation - Measure antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss in dB - Analyze audio quality with scope



NEW! MFJ-224 **$159.95**

MFJ's revolutionary handheld 2 Meter *FM SignalAnalyzer*™ lets you measure signal strength with over 60 dB dynamic range; check and set FM deviation of your packet and voice radios; measure antenna gain, beamwidth, front-to-back ratio, sidelobe suppression and actual feedline loss in dB.

Plug in any scope and your MFJ *FM SignalAnalyzer*™ becomes a service monitor! It lets you visually analyze modulation wave forms, measure audio distortion, noise and instantaneous-peak deviation.

You can tune in any signal between 143.5 and 148.5 MHz. It's built-in discriminator-meter function makes accurate tuning simple and easy.

You can plug in headphones to help you tune in and identify signals easily. There's also a battery check function. Uses 9 volt battery. Measures 4x2½x6¾ inches.

Here are some countless jobs your MFJ *FM SignalAnalyzer*™ can perform . . . evaluate antenna performance, detect feedline faults, plot field strength patterns, position your antennas, measure preamp gain, track down hidden transmitters, check and set deviation, analyze audio quality, scan the band, tune transmitters and filters, and much more!

The MFJ-224 2 Meter *FM SignalAnalyzer*™ may be the most useful 2 Meter handheld test instrument you may ever own.

Free MFJ Catalog

and Nearest Dealer . . . 800-647-1800

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Tech Help: (601) 323-0549

MFJ . . . the world leader in ham radio accessories!

How to work a DX pileup

A real expert tells you what to do

Ted Davis, W6BJH

The first decision to be made about a DX pileup is whether to enter the fray, or flee for your life! I will proceed with the assumption that you are going to enter the fray.

First, there are two kinds of pileups; single frequency, or split frequency. The single frequency operation is where the DX station is transmitting and receiving on the same frequency, and is also sometimes called simplex. The split operation is when the DX station is transmitting on one frequency and listening on another, or on a range of frequencies.

A word of caution. If you hear a DX station giving calls and signal reports but hear few or no stations calling him *BE CAREFUL!* He is very likely to be operating split, and is not listening on his transmit frequency. If you are too quick on the trigger and call him on his transmit frequency, about 18 jillion self-appointed policemen will shout "lid," or "he's not listening here" or "wrong VFO, dummy!" These are some of the more polite comments. So if you hear a DX station working away with no activity on his transmit frequency, listen for him to announce where he is listening or scout around a little and find out where he is listening.

Here are some typical splits. On 20M phone, a station transmitting may be heard on 14.195, and listening from 14.200 to 14.210. On CW, the transmitting frequency could be 14.024 for transmitting, and the station might be listening from 14.026 to 14.030. These are only examples. Sometimes the DX will have a much wider range for listening, such as 14.200 to 14.230. Extremely wide listening ranges spread the callers out over a larger portion of the band and make it easier for the DX station, but tend to enrage other users.

Okay, now let's take these two situations and analyze them, one by one. The easiest case is the single frequency operation where the DX is transmitting and receiving on the same frequency. He will say something like this: "OD5LX QRZ."

The "brute force approach" is to just give your call while everyone else is doing the same and hope for the best. This can work, especially if you are running high power, and have good propagation.

Next is the "timing approach." If you check the pileup, you will find that the bulk of the calling is immediately after the DX says, "QRZ?" Most stations will send their call two or three times, then listen. You can hold off for a bit and wait for a pause in the callers, then drop in your call in once or twice. Others may do this too! Some are apparently stuck in transmit, and *never* stop calling!

Then there is the "alert approach." Do your calling according to one of the above methods, but be *very* alert to pauses in the callers. Drop your call in during this interval. This can be hard to do, but if you hit the timing just right it can really pay off.

Be an alert and good operator. Follow the instructions given by the DX station. It is his ball game, and you need to play it by his rules or hunt for another pileup. Don't do this: He says "the station with the letters OZ in the call, go ahead." If your call does not have the letters OZ in it, DON'T CALL! Many ignore this, and call anyway. Please don't be tempted to do this. It makes it difficult for the DX station, and slows down the speed with which he is working the pileup, besides being inconsiderate of everyone who is playing by the rules.

Now let's discuss the split operation using the example previously given of 14.195 transmit, and 14.200 to 14.230 receive. Of course, you have to have dual VFO capability to operate in this situation, but almost all modern transceivers have this capability. Here are the strategies.

First, let's discuss the "tracking approach." Listen to the DX station and write down the call of the station he is working, then try to find that station in the pileup. Keep recording and listening until you find a station he is working, then record that frequency. See if he takes another caller or two on that frequency before he moves on. When he moves, you can then find how far and in which direction he has gone. Maybe he moved up 3 kHz. Chances are he will then move up another 3 kHz after his next QSO. You have now detected his operating pattern, and if you then begin calling "up three" from his last QSO, you will have increased your probability of a QSO by a bunch!

The next approach is that of staking out a frequency. Sometimes it is very difficult to determine his pattern. Maybe propagation is poor and you are not hearing the pileup well, or perhaps the pileup is so spread out and undisciplined that you can't find out just who he is working. Pick a frequency and call him there. Let him find you. For example, you could pick the low end of the spread or the high end. Or perhaps you could pick the middle of the spread — if he's tuning up and down, he'll pass the middle more often than the ends! Try to find a clear spot in the pileup, and call there.

Sometimes the DX will listen slightly outside the announced spread, and it may pay off to try there, too. Occasionally the DX station will operate differently than that which he has announced. One well known ZL DXer often will say that he is listening above his frequency when he is operating CW, but will also listen below, too. Be alert!

When beginning a split frequency operation, be sure you know how your radio works in that mode. You don't want to embarrass yourself by accidentally transmitting on the DX station's frequency. Everyone will yell at you, too. 73, and good luck in the pileups! *—tnx Shasta Cascade ARS (SCARS) News*

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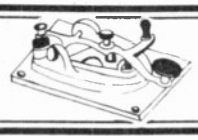
E-mail your story to armond@delphi.com

Silent Keys



TOM J. KING, W6VIJ

Tom Joe King, W6VIJ, was born on 1 May 1914, a third generation descendent of the pioneering Chinese founders of the historic city of Locke, California.

Tom loved to try different antennas, often making on-the-air comparisons. He was a faithful member of the local traffic net, and a good CW operator. He later learned to enjoy activities on the 2- meter FM repeaters, and he was always trading or buying transceivers to keep his station at a high level of performance.

Determined to upgrade to Extra Class, Tom made a number of attempts before being successful, but once he reached his goal, he kept his CW skill at a high level and devoted more of his time to trying modifications for his station.

Later, when he was no longer able to operate on the air, he was a good correspondent and kept our friendship alive for a number of years.

Tom leaves his wife, Connie, children and many grandchildren; he will be missed by all who knew him. *—Bob Brown, NM7M*

JOHN AVERY, VE9IW

Maritimes Section Manager, John Avery, VE9IW, of Swan Creek, New Brunswick, Canada, died July 9, after battling cancer for several months. He was 67.

Mr. Avery was retired from the Royal Canadian Corps of Signals and was a veteran of the Korean conflict.

An amateur for 36 years and section manager since 1993, Mr. Avery recently was named "Ham of the Year" by the Fredericton Amateur Radio Club.

RAC Atlantic Region Director Bill Gillis, VE1WG, said that despite his illness, Mr. Avery frequently talked about plans to develop and expand RAC activities. "When he was able to travel he eagerly anticipated each flea market and hamfest," Gillis said.

Mel Ellis, VE9KK, called Mr. Avery "a very active, dedicated ham who volunteered his time to many amateur clubs and organizations."

His wife, Ethel, and six children (including son Jeffrey, VA3JTA) survive. *—Wm. J. Gillis, VE1WG*

ELMER CASTRODALE, WØOEX

The Rev. Elmer Castrodale, WØOEX of Mt. Pleasant, Iowa, died 1 July at the age of 92. He had been involved in Amateur Radio for over 70 years, and was a long-standing member of the Mt. Pleasant Amateur Radio Club.

His formal education included Northwestern University, Moody Bible Institute, Wheaton College, and McCormick Seminary. He was an ordained Presbyterian minister. His pastorates included churches in New London, Iowa; Harborcreek, Pennsylvania; Hoopeston, Danvers, Carthage and Alexis, Illinois; and Minneapolis, Minnesota.

For 15 years Pastor Castrodale served as chairman of Ministerial Relations in what is now Great Rivers Presbytery in Illinois.

Survivors include his wife of nearly 69 years, three sons and a daughter. One son, Paul, of Coon Rapids, Minnesota, holds the call WØFTN and daughter-in-law Vivian Castrodale is KBØIRA. *—Dave Schneider, WDØENR*

AL MASTON, W6JYQ

Al Maston, an Amateur Radio operator for over 60 years, passed away 13 July after a long illness.

First licensed in 1934, Al helped to form the first radio club of his high school in Seneca Falls, New York. He served in the US Army Signal Corps and Army Air Force during World War II, and moved to Sacramento, California, in 1944.

Devoted to ham radio, Al was an Elmer to countless hams, an avid homebrewer and a sales rep for Atlas Radio. He was especially proud of his Atlas radio equipment. Very active in ARRL VEC and local radio activities, Al was always ready to help on short notice no matter the problem. His contributions of labor in the early days of ***Worldradio*** were greatly appreciated.

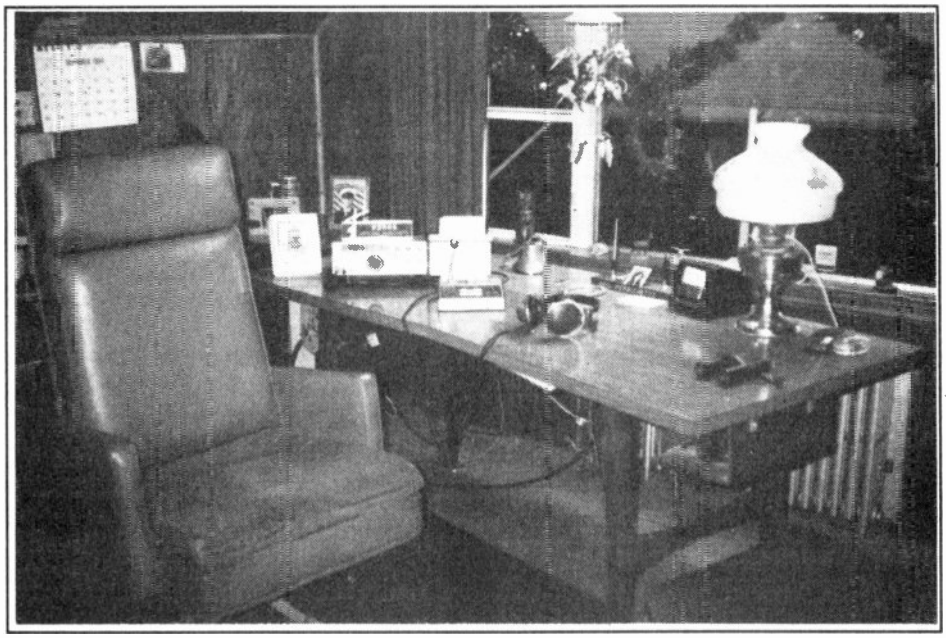
Memorial services were held in Sacramento, CA, 15 July 1997. Al was 77.

He is survived by his wife, Pat, numerous children, grandchildren, and great-grandchildren. — *Mike Maston, N6OPH*

Station Appearance

Percy Persichetty W2NHB

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



I received my Amateur Radio operator's license in September of 1939, W2NHB. I was a member of MARS and operated my station when a member of the 102nd Observation Squadron (N.Y.A.N.G.) at Miller Field from 1939 to 1941.

During my 55 years as an Amateur Radio operator, at the same address in Staten Island, I have used many rigs. Some included home brews of low power, such as the KWM2 and BC610, and the ART13 used on the Flying Fortress and converted for amateur use using a 75A4 receiver. I am now down to a simple basic station using a Kenwood 430 transceiver for the past five years, working all bands. I use a six-element Mosley AT36 antenna on a 65-foot Easyway tower and Ham M rotator. Very simple now, easy to maintain and I work anyone I can hear from my home (210 feet above sea level) overlooking the Atlantic Ocean, Sandy Hook, Brooklyn, New York harbor and the Manhattan skyline.

It's not elaborate, high power, or fancy equipment, but it is very functional and does the job. **WR**

Amateur "Hi"

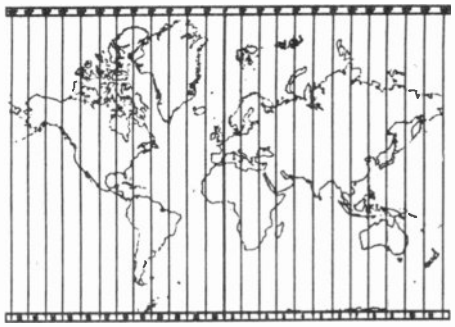
Ever had a funny or strange experience with Amateur Radio, either on or off the air? If so, type it up (or print neatly) and send it to us for consideration in our monthly AMATEUR "HI" contest. You could win a free year's subscription to Worldradio!

Ted Petrucci, W3EYJ

Some 25 years ago — and maybe more, when 2-meter operation was AM and repeaters were not here yet, some friends and I used SR-42 Hallicrafters rigs. One day while I was in QSO with a friend named Frank (now an SK), another friend walked into my home for an eyeball QSO. The second friend suggested using my station as though it were at his QTH to talk to Frank.

As he proceeded to do so, Frank told him his signal wasn't quite as good as mine. Well, at that point it was impossible to contain ourselves, and we both began to laugh. Suddenly Frank became aware of the joke, but he got even with us in his own way — he wouldn't talk to either of us for six months! **WR**

Awards



Contact All Time Zones

To help commemorate 25 years of ***Worldradio,*** we announced an award known as "Contact All Time Zones" (CATZ).

• Rules

The start date for valid contacts is 01 July 1996 at 0000Z.

The world is divided into 24 time zones. Each time zone is 15 degrees wide. For the sake of this award, half-hourly zones and out-of-zone artificial time changes will be ignored.

This award is based on the true 15 degrees each, world map 24 time zones.

The applying station must have one (two-way) contact on Amateur Radio allocated frequencies with a station in each of the world's 24 time zones. Contact with one's own nation does not count.

The operator applying for the award must have made all 24 contacts from a location within the same country.

The award may be endorsed as the applicant wishes in regard to band and/or modes.

• Application

The applying radio operator must be in possession of 24 QSL cards, one from each of the time zones.

A list shall be made showing each contact's call sign, date, band, mode and the time zone starting with the prime meridian (0°) and moving eastward.

There is a fee of $5 to cover the cost and mailing of the 8 x 10 certificate (mailed unfolded).

It is not necessary to mail your QSL cards to ***Worldradio.*** Send a statement signed by two other licensed radio amateurs (General Class or above) that they have inspected and verified the required QSL cards.

Address applications to CATZ Award, ***Worldradio,*** 2120 28th St., Sacramento, CA 95818.

Those receiving the CATZ award will have their name and call sign reported in the ***Worldradio*** DX column. WR

Product Review

EZNEC

Peter Onnigian, W6QEU

Roy Lewallen, W7EL, has recently produced EZNEC version 2.0, an antenna program that is useful, educational, and a lot of fun to use. It provides a 3D plot in color on your monitor that is very useful in understanding the radiation pattern. You can read the gain anywhere on the plot with a positionable cursor. You may also produce a rectangular plot displaying VSWR, frequency, and VSWR value for the particular frequency or band you have chosen.

The FCC regulations requiring field strength in volts per meter, or amperes per meter in space are soon to be implemented, and they can be obtained from this software. If you already have ELNEC, EZNEC 2.0 is an excellent upgrade for $69. If you don't have ELNEC, you can go directly to EZNEC by ordering it for $89.

Orders may be sent to Roy Lewallen, W7EL, P.O. Box 6658, Beaverton, OR 97007. Credit card orders may be telephoned to 503/ 646-2885. The e-mail address is: W7EL@teleport.com WR

— SPECIAL EVENTS —

OS4CLM, CANADIAN LIBERATION MARCH

On 1 November 1944 the town of Knokke, Belgium, was finally liberated at great cost of Canadian lives. Each year on 1 November, the fallen Canadians are remembered during Canadian week with ceremonies, festivities and a "Canadian Liberation March." Many Canadian and Belgian veterans, VIPs and radio amateurs participate in these events.

This year the Special Event Station OS4CLM (the suffix stands for Canadian Liberation March) will be on the air from 31 October to 07 November 1997.

The Special Event Radio Station will be operated by members of BAFARA (Belgian Airforce Amateur Radio Assoc.), BMARS (Belgian Maritime Amateur Radio Soc.), BYLC (Belgian YL Club), IPA (International Police Assoc.), and our own operators.

Again a multi-colored OS4CLM award will be available to all licensed amateurs and SWLs contacting this special event station. They also can get a beautiful QSL card. Cost of the OS4CLM award is $5 US (no checks, please) or 10 IRCs, with all proceeds going into a welfare fund. The money is used to maintain memorials and to keep station OS4CLM on the air next year.

You can contact or listen to OS4CLM on the following frequencies:

•SSB: 80M, 3.685 MHz; 40M, 7.045 MHz; 20M, 14.145 MHz; 17M, 18.150 MHz; 15M, 21.145 MHz; 10M, 28.545 MHz; 2M, 144.250 MHz.

•CW: 80M, 3.515 MHz; 40M, 7.012 MHz; 30M, 10.118 MHz; 20M, 14.020 MHz; 17M, 18.087 MHz; 15M, 21.020 MHz; 12M, 24.897 MHz; 10M, 28.020 MHz; 2M, 144.020 MHz.

•FM: 145.475 MHz

•Packet: OS4CLM@ON1CED

If you want more information about the Special Event Radio Station OS4CLM, contact Bob Dyserinck, ON1DKE (N1TBH), Vuur-torenstraat 12, B-8301 HEIST aan Zee, Belgium, or OS4CLM, P.O. Box 110, B-8300 Knokke-Heist, Belgium.

HALLOWEEN FEST

The Transylvania County Amateur Radio Club (KE4ZIS), located in western North Carolina, will be celebrating its annual Halloween Fest at the Devil's Courthouse, located at an elevation of more than 5,700 feet on the famous Blue Ridge Parkway. The club allows many hams to pick up a rare North Carolina county, and a beautiful certificate with one contact! This special event has become a favorite with hams all over the country with many contacting the special event all of the past years.

KE4ZIS uses an 80-, 40-, 20-, 15-, 10 dipole antenna and an all-band vertical. This allows simultaneous operation on at least two bands. The club encourages former club members and new hams to check in and say hello. Many mobile Amateurs make a contact, then drop by for eyeball QSOs. Many non-amateur visitors stop by to see what all the commotion is about and are given a tour and a personal description about the wonderful world of Amateur Radio. The event is an informal, relaxed operation, usually running from sunrise to sunset. Information about the club and its activities is also available on the world wide web at: http://www.wger.org/users/g/glmcon/tcarc/

Club members think that it could be made even more interesting if other clubs around the country activated a similar operation at other Halloween-equivalent locations, such as: "Bat Cave" and "Devil's Post Pile." Clubs interested in a "joint venture" should contact the TCARC at Box 643, Brevard, NC 28712.

U.S.S. *REQUIN*

The Breezeshooters Amateur Radio Club will operate special event station W3XX, from the submarine U.S.S. *Requin* docked at the Carnegie Science Center of Pittsburgh from1400Z to 2100Z, 5 October 1997.

The special event station will operate vintage CW equipment in the 40M Novice band and in the Novice portions of the 10M and 15M bands, if conditions permit. Phone operation will be in the General Class segment of 20M and 40M. For a certificate and QSL card, send QSL and an 8 1/2" x 11" SASE to: Jack Buzon, KA3HPM, 47 Grubbs Rd., Cheswick, PA 15024.

ROYAL GORGE BRIDGE

The Royal Gorge ARC will operate NCØA, from 1400Z to 2100Z on 18 October, at the Royal Gorge Bridge, the world's highest suspension bridge. Operations will take place on the lower portion of the General bands, 10-40M. Certificate QSL is available. Write Chuck Ward, NCØA, 1011 Harrison Ave., Canon City, CO 81212.

A TRIP TO NOWHERE, IL

The Iowa Radiosport Society presents the 1997 trip to Nowhere, IL, 18 October from 1400UTC-2100 UTC. Look for WØFUN on the lower General Class phone portions of 20 and 40M.

QSL to: Iowa Radiosport Society, P.O. Box 68, Burlington, IA 52601-0068. Please include SASE.

ANOTHER TRIP TO NOWHERE (KS)

The Douglas County (Kansas) ARC will operate WØUK 18 October, 1400Z-2100Z. Operation will be around 14.240 and 7.240, in conjuction with the Baldwin City, KS, Maple Leaf Festival, and commemorating the Midland Historical Railway Association train running between Baldwin City and Nowhere (the southern terminus of the railway.) For certificate, 9x12 SASE (or #10) to: Bob Drake, NØTFU, 3020 Rimrock Dr., Lawrence, KS 66047.

LODGE CELEBRATES 150 YEARS

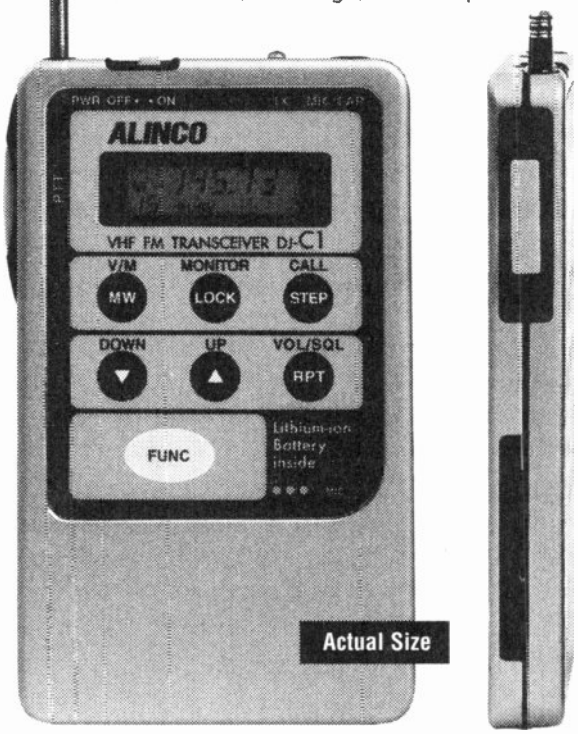
Unity Lodge #48 AF & AM of St. Charles, Illinois, will operate N9FWM from 0100 UTC, 28 October, to 2300 UTC, 2 November, to celebrate their 150th year. N9FWM will operate on SSB alternating between 28.400, 14.250, 7.150, and 3.980 MHz. For certificate send QSL and 9"x12" SASE for unfolded, or #10 SASE for folded certificate to: N9FWM, 38W248 Joan Drive, St. Charles, IL 60175. WR

Send special event information three months prior to the date of its occurence.

"Beyond Amazing"
Alinco Presents The Mini HT

So slim, *it hides in a shirt pocket.* Power to work repeaters many miles away. Clear, clean audio. 20 Memories plus a Call channel. And a Lithium ion battery that can go 100 hours between charges!

- 20 memories plus Call channel; each memory capable of non-standard splits
- CTCSS encode plus European tone burst
- 300 mW output
- Large capacity internal 500 mAh lithium ion battery
- Earphone/mic port
- Self-storing telescoping antenna
- Includes soft case, earphone, auxiliary wire "pocket" antenna and snap-in battery charger
- Fast 2-hour charging time
- 2.2" wide, 3.7" high, .41" deep



Alinco DJ-C1T 2 Meter (144 Mhz) Mini HT

- 144 ~ 147.995 MHz transmit range
- Extended receive 118 ~174 MHz including air band (AM)

Alinco DJ-C4T 70 cm (440 Mhz) Mini HT

- 420 ~ 449.995 MHz transmit range

The Alinco DJ-C1T and DJ-C4T represent breakthroughs in mini-radio technology. About the size of a credit card, one can be carried in pocket or purse. With it, you're ready to communicate anytime. Whether you're in business attire or running a marathon, these small, lightweight radios are easy to carry and easier to operate.

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EMS-41 speaker mic (requires EDS-7)

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Off the air

I am a Silent Key?

Each month when I receive ***Worldradio,*** I begin reading page one and work my way in to catch the news. On the very top of page three of the July issue my eye caught my own call. I had to look twice to understand that this wasn't my silent key notice, but I had won a $200 coupon toward equipment purchases with MFJ. Now, looking thru the very large MFJ catalog, my decision is not easy. MFJ, you just don't play fair; how can I pick from all these goodies?

Thank you, ***Worldradio*** and MFJ,

Hal Williams, N6TZ
Camarillo, CA

Fine article

Congratulations to AI7R on his fine article "From 'No Code' to knowing code!" Here at Hamfesters Radio Club, we plan to give a copy to all passing through our VE testing sessions.

Bob Hotz, W9CA
Oak Lawn, Il

An open book?

In the June issue of ***Worldradio,*** the Publisher's Microphone column mentioned the ARRL's proposal to upgrade Novice licensees to Tech Plus with an open book exam. This is probably one of the worst ideas I've heard regarding the licensing procedures. I couldn't agree more with the publisher's comments on this idea.

Amateur licensing has already become too easy, largely requiring rote memory, and to further simplify it by an open book exam is only making it easier. A better idea would be to do away with the Novice license altogether, let the entry level be Technician with regular exams, and the opportunity to go to Tech Plus by passing 5 wpm code. Current Novice licensees would still be able to upgrade by passing a regular written exam.

I have long been a member of the ARRL and admire all they have done for Amateur Radio. However, in their zeal to enhance the number of hams they tend to go overboard in some areas. I may be considered an "old fogey," having been licensed for 65 years and can still remember getting my first ticket, W6FQK, and drawing all those diagrams, identifying parts and their purpose, all of which served us well in those days of home-brewing. Not so today, as I have personally been the VE when folks passed higher grade exams with good grades and still don't know a coax from a capacitor — rote memory, my friends!

Let's hope the ARRL will push for more stringent examination, rather than easing it to the point where we will become CB all over again.

Lou Bean, KV4JC
St. Croix, VI

High on Amateur Radio

In "The Publisher's Microphone" (August '97 issue), Armond commends Amateur Radio to blind and homebound persons. This opportunity can, and does, open so many doors! From firsthand experience, I want to share my experience as an amateur with limited mobility due to multiple sclerosis.

First, there is the issue of self esteem. With each new upgrade (I am now an Extra!), and every time I master a new mode, my self esteem "goes through the roof." I would love to brag about my accomplishments to my friends, but the only ones who listen are the radio related ones I've made in the four years since first becoming licensed. Next, there is the variety of activities. Nets, VE test sessions, QSOs, Field Day, recording material for blind amateurs, ham conventions, and public demonstrations are some of the things I'm involved with. I love being net control, and do so most every week for our local group of HandiHams; I've developed many contacts, and aided many potential amateurs to acquire a license, merely by being the usual net control and having my voice recognized. Being a YL in a male-dominated hobby doesn't hurt, I must admit.

I don't even think I can convey the importance of my license in relation to the depression I often experience (a symptom of MS). Now, instead of taking medication, I force myself to write a YL packet net bulletin, or I cruise the 20M band eavesdropping on interesting QSOs.

It took me a while, over a year, to find my niche in the Amateur Radio community. Now when I drop out of "sight" due to illness, all of my friends know that I'll be back on the air as soon as my health permits.

73 & 33, and thanks for listening to my viewpoint.

Robin Parker-Resnick, KJ7BI
Portland, OR

I TIED AN ANTENNA WIRE TO HIM HOPING HE'D TAKE IT UP IN A TREE, BUT I GUESS HE HAS TO MEET HIS XYL UP IN CANADA

Let the Code remain

I read the article by KB8RVS and I agree that CW should remain. I, too, have used a one-tube transmitter, so inexpensive a rig that you could replace a tube for 75 cents, quite unlike today's rigs and their $40-$80 repair bills. Oh, I also have some fancy gear, but a single 6L6 *would* put you on the air.

I'm an ex-army operator. I went to eight schools, including Fort Monmouth, NJ. I went from copying code at 9 wpm to 36 wpm in just 36 weeks. I was a German-Russian intercept operator. (I knew what they were doing all the time!)

In those days, we used a mill and a pencil. I operated KR6HT out of Okinawa. We used BC 610 modified 3kW, and HROs, super PROs and Hammarlunds. We never missed a word.

I've been to an English and a Polish ship operators' school; I learned all the methods. I was in 14 combat missions. The code worked all the time, it is always the same.

I am now 80 years old and I have

had the same call since 1939 (W3NIT). I say let the code remain at 13 wpm; code will come through when voice won't make it.

William C. Peters, W3NIT
Wallingford, PA

Simple elegance backups

I recently received a ***Worldradio*** cap and I am delighted with it. It's a perfect example of simple elegance. I own many caps (I'm sort of a cap nut), but this one immediately became my favorite. So much so that when I flew back East last week I wore it instead of one of my Yosemite caps. Therein lies the tale.

I had a snack at a small bagel shop and as is the custom in the provincial East, I removed my cap and put it on the bench beside me. Yup, I forgot it. When I realized my loss I immediately called the shop but they were closed. I panicked. Called them first thing the next morning but they said they couldn't find my cap. After much debate they agreed to look some more. They found my cap. Drove to bagel shop and claimed my prize.

On the flight back to California I placed my carry-on bag and my ***Worldradio*** cap in the overhead bin. Partway though the flight I opened the bin to get a pillow. I felt a tap on my shoulder. A little lady behind me handed me my beloved cap. She said it fell out when I opened the overhead bin. I put on on my head and didn't remove it until I got home.

Then I realized the problem (besides senility). Even though I have backup for my radio equipment, I did not have backup for my radio cap.

Please send me *two* backup caps.

Still enjoy reading ***Worldradio.*** Keep up the good work. Thanks,

Jules Katz, KK6TR
Bass Lake, CA

Put the lead in it

I enjoyed reading the QCWA column in the ***Worldradio's*** July issue. Congratulations to Gary Harrison, newest addition to the QCWA Board of Directors.

I'm not surprised he bought a Heathkit to hear better — if he built the "Fox Hole" radio described in the QCWA article. It won't work unless you attach a piece of pencil lead to the safety pin. Built as described, he could scratch around forever on a "blue blade" and not hear anything!

Richard Schmidt, K7NSW
Boise, ID

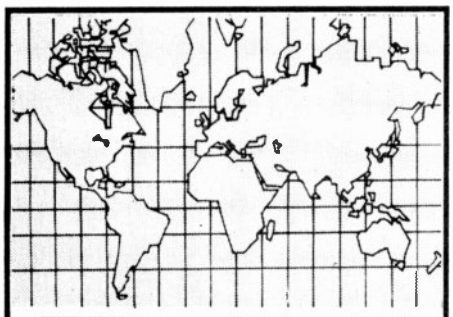
Club says thanks

I'd like to thank to ***Worldradio*** for the MFJ Antenna Analyzer which we received a short while ago. It will be a welcome addition to our club equipment and will come in handy whenever we use our antenna trailer and have to set everything up. We received it just a few days short of being able to use it during ARRL's Field Day.

Many of our members join me in saying thanks, as they, too, can use it to adjust their antennas. I'm already receiving requests to be put on the list to use the unit.

We appreciate being given the analyzer.

John Kalmes, KC7LIB, Pres.
Old Pueblo Radio Club
Tucson, AZ



DX WORLD

John F.W. Minke III, N6JM
P.O. Box 310, Carmichael, CA 95809-0310
• E-mail: n6jm@pacbell.net •

W-100-N

Only one application for the Worked 100 Nations Award was received this month. Congratulations are in order to:

522. Sam R. Scheltens, PA2SAM
All CW 31 July 1997

CATZ Award

The CATZ Award has been available for over a year now and still no qualifying applications have been received. Am I going to have to be the first one to apply for this award?

Spratly Islands (1S)

Don Field, G3XTT, and several other members of the Chiltern DX Club and the United Kingdom DX Foundation, have organized a DXpedition to Layang Layang Island, also known as Swallow Reef. This is located among the Spratly Islands (AS-051) and the operation is scheduled for February 1998.

Four stations should be on the air around the clock, and will be manned by at least 10 DXers. The call is expected to be 9MØC. The group is looking for sponsorship and donations can be made to Vince Thompson, K5VT, one of the scheduled team members.

Azerbaijan (4J)

If you are searching the bands for YL operators listen for Oksana, 4L8YL. She is on most days near 14.198 MHz from 1400 UTC. She may have been the same Oksana who held the call 4K8DYL.

World Bank (4U1WB)

Some DXers have been confused to what the call 4U1WB counts for. Sorry to disappoint many of our newer DXers, but this counts only as the United States. Located in Washington, DC, this is the call used by the World Bank. It does not count the same as 4U1UN, United Nations Headquarters in New York City, nor does it count the same as 4U1ITU, ITU Headquarters in Geneva.

Libya (5A)

According to *DX News Sheet* and others, the Icom-Austria Radio Club has sent a DXpedition to Tripoli, scheduled to operate from 28 August through 7 September signing with the call 5A28. The unusual call sign signifies the 28th anniversary of the Libyan Revolution.

Then in November a group of four German DXers will operate club station 5A1A in Tripoli. According to *The Ohio/Penn DX Bulletin*, they will begin operating about 24 November and should continue through until 4 December, including *CQ*'s Worldwide DX Contest. The team will include Andy, DJ7IK, Dieter, DL3KDV, Felix, DL8OBC, and Thomas, DL1GGT. Two stations with amplifiers will be on the air simultaneously on all the HF bands, including 160 meters and the WARC bands, operating CW, SSB and RTTY. The QSL route for this operation only will be DL3KDV.

Uganda (5X)

Steve Bauer, DJ1US, says that he will be joining Peter Casier, ON6TT, and Mats Persson, SM7PKK, in Uganda, and will be there through the end of November. At the time of this writing, Steve, who operates 99 percent CW, does not know what call will be assigned to him. Peter is operating as 5X1T and Mats operates as 5X1Z. Gary Jaeger, DF2RG, will be Steve's QSL manager.

Mats has been away from Uganda but returned on 13 August. He is very active on the bands and is looking for stateside stations, particularly on the low bands.

China (BY)

There is a certain amount of activity from this one, especially now that personal stations are permitted. Several years ago China came back on the air and many of us DXers giggled with glee! Before long there were several of those BY calls on the air with such calls as BY1PK, BY4AA, BY5RA, BY8AC, and even BYØAA way back at Wulumuqi. I even devoted an entire column to the operators and the calls. However, at that time only club stations were permitted. A few years ago personal calls were issued, many of them with the BA or BD prefix.

It is interesting to note that these prefixes can be closely related to those of Taiwan, also known as Republic of China. Mainland China is referred to as the People's Republic of China. As for the prefixes, BO and BV calls are those operating from Taiwan; BA, BD, BT and BY are mainland calls.

Earlier in the month of July a station signing with BA1DU was active on 20 meters SSB. A good time to look for this one would be after 1200 UTC anywhere between 14.180 and 14.220 MHz. Although several personal calls are listed in the *Callbook*, this one was not.

Additional calls with the BA prefix included these:

BA1CO	14.198 MHz	1545 UTC
BA4TA	14.017 MHz	1600 UTC
BA4TB	14.023 MHz	1230 UTC
BA4TD	14.190 MHz	1400 UTC

There were some calls with the BD prefix. BD4RA was one particular call and the operator was reported to be a YL by the name of Gui. She evidently likes CW, near 14.035 MHz after 1130 UTC.

Club station BY1QH, the call of Tsinghua University, has been on at various times, but at no regular schedule. You might try near 14.195 MHz after 1200 UTC.

Antarctica (CE9)

Stationed at the Ukrainian Vernadsky Base, Paul Budanov, UX2HO, operates as EM1HO. DXers will be pleased to know that Paul is very active on 75 meters. Look for him between 3.795 and 3.800 MHz, after 0630 UTC.

Paul was active in the IARU HF Championship in July, and was also on CW, where I was pleased to work him on 80M. Now, if you think 75/80 meters is useless during the summer, don't forget it is winter down there! He will be at the base until February 1998.

St. Paul Island (CY9)

The CY9AA DXpedition to St. Paul Island was very busy with contacts given out on 12 meters, and 17 through 160 meters. They shut down operations on Thursday, 3 July, and were off the island by noon that day. The team members, Mike Smith, VE9AA, Doug Shepard, VE1PZ, and Dennis Motschenbacher, K7BV, collected approximately 12,000 contacts during their stay on the island. Mike says that his address in the *Callbook* is not quite correct. Refer to QSL Routes for the correct address. Mike also reports through the DX Reflector that he failed to make any recordings of his operations and requests copies if you have any. Any recordings less than one minute in duration may be sent via e-mail to Mike: ve9aa@brunnet.net. Mike says to send it as an ".RA" file, (preferred method), or as a ".WAV" file, which he can convert to an ".RA" file later.

On 23 July another DXpedition team activated the island and was in the RSGB IOTA Contest signing with CY9SS. The operation continued through 30 July. With all this activity all DXers should now have St. Paul Island. If not, you were out of town, your rig was down, or you spend all your DXing on list operations.

Right now as you read this, according to *The Daily DX*, three DXers — Lou, VA3R, VA3EU and HA5IJ are signing with CY9DX from 12 September for about ten days to 22 September. They plan to concentrate on CW. So, stop reading DX World and go work CY9DX, today!

Kure Island (KH7K)

Gary McClellan, K7ZD, reports that the Midway/Kure DX Foundation has planned a multi-national team DXpedition to Kure Island during the latter part of September. The team is to include five or six operators and should be on the island for about one week. They will be operating three HF stations continuously, concentrating on areas of the world where Kure Island is needed the most. Special emphasis will be on the lower bands. The DXpedition will be conducted in tandem with Fish and Wildlife specialists, who will be accompanying them.

Luxembourg (LX)

Here are a few calls from Luxembourg that had been reported on the OH2BUA *WebCluster* and the *Juliet Alpha Cluster*:

LX1AF	18.086 MHz	1430 UTC
LX1HD	14.196 MHz	2215 UTC
LX1KC	7.087 MHz	2215 UTC
LX1MG	14.222 MHz	1645 UTC
LX1MU	10.108 MHz	1930 UTC
LX1SF	21.250 MHz	2130 UTC
LX1TI	14.195 MHz	1345 UTC
LX2MG	14.254 MHz	1915 UTC
LX9DX	14.210 MHz	2330 UTC

Faeroe Islands (OY)

Hans, OY2H, has been handing out CW contacts on the WARC bands recently. Try 18.075 MHz around 1200 UTC. Other WARC band activity includes:

OY1A	18.143 MHz	1300 UTC
OY1CT	10.103 MHz	0430 UTC
OY2H	10.102 MHz	1815 UTC
OY3QN	10.104 MHz	2330 UTC

OY4TN was working RTTY on Sunday, 20 July near 14.089 MHz from about 1500 to 1900 UTC.

Sudan (ST)

The Daily DX noted that Dr. Sid, ST2SA, was on the Arabian Nights Net during the 4th of July at 0600 UTC. This net meets on 14.252 MHz.

Egypt (SU)

A few calls from Egypt were reported during the month of July and apparently on SSB only, mainly 20 meters. Such calls included SUØERA, SU1BS, SU1GS, SU1SAN, and SU1SK. All of these calls were reported between 14.190 and 14.250 MHz, with much of the activity centered around 14.220 MHz. I would suggest listening for them after 1830 UTC.

Chad (TT)

According to *The Daily DX* Jean Pierre Lange, F5TRP, will be active from Chad until 15 October. He will be signing with the call TT8LJP, both CW and SSB.

Iraq (YI)

Szabo Laszlo, HAØHW, the QSL Manager for YI9VK, reports that this station is very active now in Baghdad on all bands, 10 through 40 meters, including the three WARC bands. The operator, Sanyi Csige, HA7VK, operates CW, SSB and RTTY. His son, Gabi, HA7SK, operates as YI9SK. His operation from Iraq ceased on 29 July. Both of them had been reported often, much of it on the WARC bands.

Omar, YI1OM, shows now and

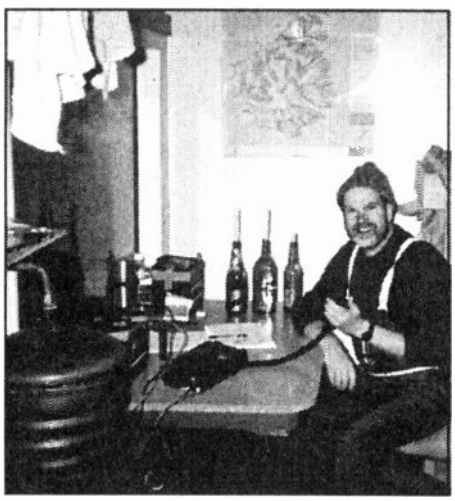
then on 20, and has been on both CW and SSB. Look for him between 14.019 and 14.025 MHz or near 14.228 MHz, after 0700 UTC.

Lessa, YI1RS, is another active call from Iraq. Look for this one on 20 meters SSB between 14.225 and 14.254 MHz after 0600 UTC.

From Baghdad, Duraid, YI1US, has been mainly on CW. Look for this one near 14.008 MHz after 1230 UTC.

Other calls active during July included the following:

YIØEB	14.252 MHz	1400 UTC
YI1ALW	14.226 MHz	1545 UTC
YI1FL	14.241 MHz	1445 UTC
YI1HK	14.209 MHz	1530 UTC
YI1HS	14.240 MHz	1400 UTC
YI1SEA	14.001 MHz	1600 UTC
YI1SRA	14.254 MHz	1215 UTC



Auckland Island (ZL9)

Meet Ed Hartz, K8VIR, who dished out a brand new one for many. Ed operated as ZL9DX, and also K8VIR/ZL9, from Auckland Island recently. Obviously, electrical power was not available judging on the storage battery and those candles. *(Photo courtesy of Ron Faulkner, W6TUR).*

IOTA

My wife and I will be taking a "cruise" aboard Alaska Marine Highway's m/v *Tustumena* from Homer to Dutch Harbor. The IC-735, along with a W6MMA vertical antenna, will be with us and a very serious attempt will be to get on the air from Amaknak Island, which is part of the Fox Islands (NA-059). We will arrive on Saturday, 13 September 1997, at 1430 UTC and will be there through 16 September. If we get a chance we will try to activate an island down in the Homer area upon the return from Dutch Harbor. Any island there would be part of the Cook Inlet group (NA-158).

The IOTA Committee has determined, after checking maps, that the AS-117 Mukai Shima operation by Osamu Kawasaki, JR4GPA, on 25 May, and 21 and 22 June, does not meet the 200 meter rule. Therefore, contacts for this operation will count only as AS-007, which is Honshu Island, the main island of Japan.

If you are still in need of AS-117 credit, you may check your maps of Japan. This IOTA group is Honshu coastal islands. I did just that and found such credit in my collection of JA QSL cards. Your checkpoint may have calls that have been used by others.

IOTA Annual Listing

Roger Balister, G3KMA, the RSGB IOTA Manager, is very pleased with the increased interest in the IOTA program. In 1994 there were 509 DXers involved in the program. In the 1997 report there were 1,027, and with the growth as it is, the present number will exceed that.

The United States is at the top of the list with 227 members, followed by the hosting country, Great Britain with 132 members. Our friendly neighbor to the north has 27 members. Our neighbor to the south doesn't have any. Not included in the U.S. total is Alaska with 5 and Hawaii with 4. This would really give us 236 members.

Leading the pack with the number of island groups confirmed is Jean-Pierre Guillou, F9RM, with a total of 882. On his heels is Livio Zenti, I1ZL, with 871, and Gianni Varetto, I1HYW, with 864. When the 1997 *IOTA Directory* was prepared, there were a total of 894 island groups worldwide that had been activated, so this is a real accomplishment for these ladies and gentlemen. Most IOTA DXpeditions are not full scale operations as with DXCC DXpeditions.

DXCC Documentation

Documentation for the following calls has been received and approved at the DXCC Desk:

3A/DJ7RJ	J77C
3B8/DL6UAA	J77FT
3B8/EA3ELM	J79BP
3C5Z	J79QA
3D2UK	J79RC
3XYØ3A	J79WP
8Q7AF	PJ8DX
9H3VG	SØ7NY
9H3VH	SM5ENX/DU1
9H3WD	T32HA
9H3WM	TI*/AA8HV
9K2/YO9HP	TI/ON7ZM
9U5T	TL8EJ
BS7H	TN7A
C5ØYL	TO5C
C53HP	TT6FNU
C93/JA6SJN	TY1RY
C93/JG6BKB	V5/DK2WH
C93/JR6XIW	V5/W8UVZ
D25L	VKØIR
D2FIB	VK9FL
D68KS	VK9PG
ES1HR	XT2GA
ET3FB	XZ1N
HS9AL	YV7/AH6OM
J3X	YV7/WH6DAG
J6/F5CCO	ZK1JOO
J75T	

1997 New England DXCC Convention

The Patriot DX Association will sponsor the 1997 New England DXCC Convention and Dinner on Sunday, 12 October 1997. It will be held at the Chelmsford Elks Hall, in Chelmsford, MA, located at the junction of Interstate 495 and Massachusetts Hwy 3. There should be an exciting program for New England DXers.

The convention will begin at 8:00 a.m. and continue with a busy schedule until 5:00 p.m. A buffet style dinner immediately follows. Coffee and Danish will be served early on.

Send your DXpedition story to Worldradio, 2120 28th St., Sacramento, CA 95818, or e-mail: armond@delphi.com

Included in the program are two shows by Paul Young, K1XM, and Charlotte Richardson, KQ1F: Their J3 Grenada trip during the 1996 *CQ* Worldwide DX Contest, and their 1997 DXpedition to the Spratly Islands. Also included will be a presentation on the VKØIR, Heard Island DXpedition by Bob Fabry, N6EK, a member of that DXpedition. Dennis Motschenbacher, K7BV, will also be there with a presentation of the recent CY9AA St. Paul Island DXpedition.

Advance tickets are $22.50, or $25.00 at the door. Please send an SASE and make checks payable to: Patriot DX Association, P.O. Box 8, Prides Crossing, MA 01965. For more information, please contact Bill Bitchell, N1BB, 96 Greenwood Avenue, Swampscott, MA 01907, telephone (617) 595-0122, or e-mail to n1bb@juno.com. For ticket information contact Mel Cole, WZ1Q, at (508) 927-1953.

DX QTH Rentals

Sean E. Kutzko, KX9X, of Elkhart, Indiana, is preparing a list of DX locations for rent for those who wish to vacation and operate from DX locations. Sean says, "Keep in mind that the list will only be as good as the info provided. If you know of places that rent a fully-functional QTH, or a ham-friendly hotel/villa, please let me know about it. I need as much of the following info as possible: name of the country and prefix; location; brief description (hotel/villa, house, cave, etc.); contact person and call; address (web page, e-mail address, and regular); phone number; FAX number; and what equipment and antennas are available on the site."

Sean does not want to get into the issues of prices and availability, as these are subject to rapid change. However, he did later request the weekly price in U.S. dollars.

Please contact Sean via e-mail at kx9x@juno.com. He presently has a web page in its beginning stages: at http://hobbes.ncsa.uiuc.edu/sean/qthlist.html.

Miscellaneous

Bob Donovan, W7CF, questions the call X5SO worked by many of us recently. Bob, the operator of X5SO, claims to be a new country, out of Bosnia. If I remember correctly, I think this has something to do with the Bosnian Serbs, and that is not a new country. Whatever! Work the station now and worry about it later. I did.

QSL Manger Ray McClure, W8CNL, reports the 9K2ZZ operation on 4 July 1997 was the work of Slim. Do not request a QSL for this operation. Ray says the last operation of 9K2ZZ was on 4 December 1996.

In May 1997 9K2RR was on the air and said to "QSL via K1VKO." This too was a Slim, as Art Santella, K1VKO, is not, and has never been a QSL manager.

And the recent CW operations of ZD7HI are also Slim. Chris, ZD7HI, operates SSB only.

We usually don't discuss Slim (pirate operations) in our column as it may encourage such activity by these sickies.

Talking about frustrations, how about this one? In discussion about SWL cards on the *VE7TCP DX Reflector*, Wendell Wyly, W5FL, stated that he had an SWL card confirming Wendell's contact for one "All Time New Country" contact, but a note from the QSL manager stating "not in the log!"

DX Prediction — October 1997

Maximum usable frequecy from West Coast, Central U.S. and East Coast (courtesy of Engineering Systems Inc., Box 939, Vienna, VA 22183.) 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.

CENTRAL U.S.A.

UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	*(13)*	9	***15**	*(9)*	***14**
10	*(13)*	9	14	*(9)*	14
12	26	9	14	17	25
14	31	12	***21**	19	***28**
16	32	*(11)*	18	18	***30**
18	***31**	*(11)*	*(15)*	*(14)*	***32**
20	25	*(18)*	23	*(11)*	***32**
22	21	20	28	*(10)*	***30**
24	***18**	*(18)*	29	9	***26**
2	***16**	*(12)*	23	9	***22**
4	***15**	*(11)*	20	9	***19**
6	*(14)*	*(10)*	17	***9**	***16**

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	*(11)*	12	***16**	*(9)*	15
12	*(10)*	11	***15**	*(9)*	14
14	*(21)*	11	***14**	17	30
16	*(24)*	11	***18**	17	32
18	25	*(11)*	*(15)*	*(14)*	32
20	25	19	23	*(11)*	***32**
22	21	24	28	*(10)*	31
24	*(18)*	***26**	31	*(9)*	***29**
2	14	23	30	9	***24**
4	***13**	15	26	9	***20**
6	*(12)*	13	21	10	***17**
8	*(11)*	***12**	18	*(9)*	***14**

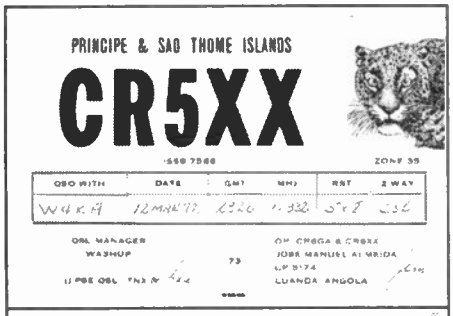
EAST COAST

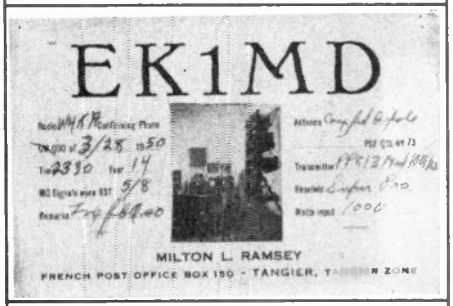
UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	*(13)*	*(9)*	*(15)*	***9**	***15**
9	*(13)*	9	14	*(9)*	***14**
11	27	9	14	17	22
13	31	10	***22**	***20**	***26**
15	33	*(9)*	*(19)*	***19**	***29**
17	***33**	*(9)*	*(17)*	17	***31**
19	***28**	*(9)*	*(20)*	*(11)*	***32**
21	23	*(17)*	26	*(10)*	***31**
23	***19**	*(18)*	29	10	***27**
1	***16**	*(12)*	22	9	***23**
3	***15**	*(11)*	19	9	***19**
5	***14**	*(10)*	*(17)*	9	***17**

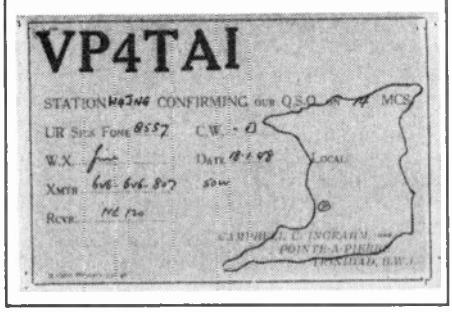
Antique QSL Department

Here are three more cards provided by Leo Haijsman, W4KA. Whether you consider them antique or not depends upon your age and how long you have been a DXer.

Back in 1972 Jose Manuel Almeida, CR6GA, of Angola, was operating from Principe and Sao Tome Islands as CR5XX. The frequency listed was 14.332 MHz, the YL ISSB system operating frequency. This is back in the days when nets were not a bad word. Notice that his QSL Manager was Mary Ann Crider, WA3HUP. As to the whereabouts of the operator, there is more than one person by that name listed, so it cannot be







ascertained what his call is now. Angola is no longer a Portuguese territory.

Leo worked EK1MD of Tangier on 28 March 1950, on 20M AM. The operator, Milton L. Ramsey, cannot be found in the *Callbook*. Tangier became a deleted country in 1960. Tangier, prior to that, had been assigned the CN2 prefix. The EK prefix had become assigned to the Soviet Union and is presently the prefix for Armenia. Tangier was represented earlier in the Antique QSL Department in the March 1980 and December 1981 issues.

Leo was operating as W4JNG in Falls Church, Virginia, on 18 January 1948, when he worked VP4TAI of Pointe-a-Pierre, Trinidad, in the British West Indies. Again, Leo was working AM on 20. The operator, Campbell C. Ingrahm, was running only 50 watts, using a simple transmitter consisting of a 6V6 oscillator, 6V6 driver, and an 807 final tube. Those were the days of simplicity and fun! A check with the *Callbook* shows only one Ingrahm today, that being one Campbell Cyril Ingrahm in Victoria, British Columbia, who we may assume is the same person. His call is VE7FBF.

QSL Information

There is an error in the listings for QSL Managers on page 32 of the August issue. Denny Bowman, W7SNH, informs us that the route showing A35AK via W7TSQ is incorrect and should have read A35RK via W7TSQ.

Mats Persson, SM7PKK, notes that QSL requests for his 5X1Z operations are still being sent to his former address listed in the *Callbook*. The route is no longer valid and should be sent to him via: Zenithgatan 24 #5, S-212 14 Malmoe, SWEDEN. Mats also notes that about 1990, it became illegal for the Swedish P&T to send out addresses publicly. He did send the *Callbook* people his current address about two years ago, but they still have not corrected it.

Thanks go to the following contributors for this month's column: DJ1US, ES7RE, HAØHW, JA1ELY, SM7PKK, VE9AA, N1BB, W4BAA, W6TUR, W7SNH, KX9X, Western Washington DX Club (WAØRJY), Northern Arizona DX Association (W7YS), International DX Association (W4WMQ), American Radio Relay League (K5FUV), *Juliet Alpha Cluster* (JE1OMO), *WebCluster* (OH2BUA), *425 DX News* (I1JQJ), *DX News Letter* (DJ5AV, DL7VOA), *The OPDX Bulletin* (KB8NW), *Internet DX Mailing List* (VE7TCP), *The Low Band Monitor* (KØCS), *Island/DX News* (W5IJU), *The Daily DX* (W3UR), *QRZ DX* (N4AA), and *DX News Sheet* (G4BUE).

For the last several issues now my main source of news has been from the Internet. With this issue I added myself to the *Internet DX Mailing List* subscription list, among others. For last month's column I checked daily with the *WebCluster* for a few garden-variety DX reports, which drove me nuts. From now on, I think I will concentrate on DX reports that are a bit more rare.

An interesting thing happened one Sunday afternoon. I heard a European calling CQ and called him, although he couldn't copy me. But what I did get was, "This is a busy frequency, please QSY!" What if I had made contact? I should immediately terminate my contact since a rag chewer's net was in progress. They didn't call the European and tell him to QSY. Maybe we should all ask if the frequency is busy before we answer a CQ.

I will be back in Alaska for two more weeks in September. I plan to get on for a couple of days when in Dutch Harbor. Give me a call if you hear me. I will be running only 100 watts to a vertical antenna. 73 de John, N6JM. **WR**

QSL Routes

3A/JH1NBN	JH1NBN	5X1P	G3MRC
3A/ON6NN	ON5FP	5X1Z	SM7PKK
3D2JH	VK2GJH (1)	5X4F	K3SW
3D2RW	ZL1AMO	5Z4RL	N2AU
3W4EZD	XW2A	6W1QV	F6FNU
3W6LI	XW2A	7Q7JL	GØIAS
3Z2GD	SP2FOV	7Z1AB	KN4F
4F1IX	DU1IX	7Z1IS	SMØOFG
4F3CV	HB9CXZ	8P6AM	KU9C
4F3GDX	DU3GDX	8P9CV	PAØERA
4L4CC	RV1CC	8P9DS	PAØERA
4L6YL	UF6DZ (3)	8P9HR	K4FJ
4L8T	LY1FF	8P9IV	VE2WYK
4NØS	YU7JDE	8R1ZB	JH1NBN
4S7SW	ON6EZ	8S3JR	SM3CVM
4U1WB	KK4HD	9A5ØD	9A1BHI
5A28	OE2GRP	9A7C	KA9WON
5B4/RA3CW	YL3AF	9G1BJ	G4XTA
5H1FS	I4UFH	9G1YR	G4XTA
5H3ES	DF9SU	9HØA	LA2TO
5H3FS/1	I4UFH	9HØVRZ	PAØJK
5NØBHF	OE6LAG	9H3CC	GM3VTB
5NØT	F2YT	9H3JR	DJØQJ
5N8NDP/9	IK5JAN	9H3KE	PAØPAN
5R8FK	NY3N	9H3ON	PA3BIZ
5V7MB	N7MB	9H3XY	G4ZVJ
5V7MD	K7PT	9J2BO	W6ORD

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Gary, N7GJ, Mgr.
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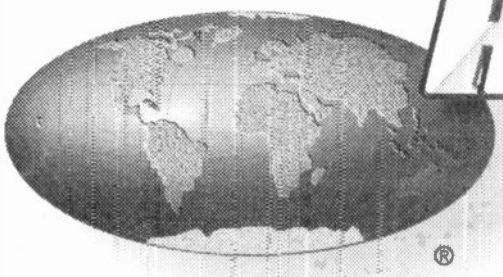

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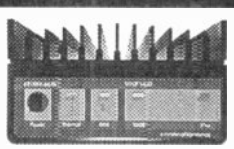

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9K2GS	WB6JMS
9K2QQ	AA6BB
9K6POW	9K2RA
9M2OM/P	GØCMM
9M6A	N2OO
9M6AG	JA9AG
9M6HIL	N2OO
9M6JE	JA9AG
9M8ZZ	PA3FWG
9N1RHM	G4CRY
9N1UD	K4VUD
9X4WW	ON5NT
9Y4SF	WA4JTK
A22EW	ZS6EW
A35DB	W7TSQ
A35MJ	KS7D
A35RK	W7TSQ
A35SQ	W7TSQ
A45XL	G4VUO
A61AD	N1DG
A61AF	N1DG
A61AO	N1DG
A61AQ	N1DG
A61AS	YO3FRI
A92FZ	W3HCZ
AHØR/VP9	JH6RTO
AP2KSD	IK7JTF
AP2MAM	IK7JTF
AP5ØN	AP2MMN
BA4TB	F/HH2HM
BOØM	BV2KI
BO2YA	BO2AB
BVØDX	KA6SPQ
BV4FH	KA6SPQ
CH6RCH	VE6BEX
CL8VP	CO8RCG
CN68CV	Bureau
CN68GB	CN8GB
CN68MC	CN8MC
CN68NC	CN8NC
CN8SN	IK7JTF
CO2JD	HI3JH
CO3ZD	CT1ESO
CO4BM	CT1ESO
CO8HF	CT1ESO
CP4BT	DL9OT
CQ2I	CT1EEB
CQ4FMX	CT1FMX
CS7UW	CT4UW
CU2/DK2OY	DK2OY
CU2/DL3LAB	DL3LAB
CU2X	DK4LI
CU8L	CU3EJ
CX7RM	CX1RA
CYØNCD	VA3NCD
CY1TX	VO1TX
CY9AA	VE9AA (3)
CY9DX	VA3RU
CY9DX	VA3RU
CY9SS	VY2SS
D2CC	DF2AM
D2EB	I3LLH
DAØSBB	DL1JGP
DL5CW/P	DL5CW
DL6MHW/P	DL6MHW
EA1AGZ/P	EA5OL
EA1EG	EA1JJ
EA3UR	EA3AFW
EA4DMB/P	EA4ENO
EA5FMC/P	EA5AR
EA5RCC	EA5GLT
EA5RKX	EA5OL
EA5URP	EA5OL
EA5VY/P	EA5VM
EA5WI/P	EA5AL
EA7BR/P	EA7CWA
EA8/OH4NL/P	OH2BYS
EA9AU	EA9IB
ED1FSM	EA1BTK
ED1IDA	EA1BT
ED1ILE	EA1CJH
ED1ISA	EA1EAU
ED1OCV	EA1AAA
ED5HQ	EA5HQ
ED5MFP	EA5VM
ED5RCC/ED3	EA5AOR
ED5RPU	EA5GNW
ED6CNR	EA6RCC
ED6DIE	EA6ADP
ED7IDL	EA7FR
ED7MTQ	EA7BB
EF5HQ	EA5HQ
EG1ISG	EA1EPB
EG97CMC	EA2URD
EI4VUJ	K8PYD
EJ2HY	EI2HY
EJ2IB	EI2IB
EJ8HT	EI8HT
EK6OCM	K6EID
EM1HO	I2PJA
EO2QMD	UR5QRB
EP2MKO	UA6HCW
ESØI	ES7RE
ES5AQ	K5AQ
ES5CI	W5CA
ES5RF/Ø	OH2LVA
ET3IV	I3IVW
EU3FT	W3HCW
EU93ØEU	LY1BA
EW15WZ	DL1OY
EW35WB	EW1WB
EW3LB	W3HNK
EX2FP	UF6DZ (3)
EX2M	F/HH2HM
EX9DZ	UF6DZ (3)
EY1ZA	W3HNK
EY1ZU	W3HNK
EY8AM	DL3OF
EZ7TDP	UA9LM
FG/EA3CB	EA3CB
FG/F2HE	F6LQJ
FG5EY	F6EYB
FK8GM	WB2RAJ
FK8GT	F6GZA
FK8HC	VK4FW
FM5BH	F6HEQ
FM5FM	F5LNV
FM5GU	WA4JTK
FOØCQ	KA7CQQ
FOØKK	W6KK
FOØRT	N6RT
FOØRW	W6RW
FO5PI	F5OTZ
FO5VO	N6VO
FO8DX	W6DA
FR5HR	F5RRH
FY5FJ	IK2HTW
FY5YE	W5SVZ
G/F6BFH/P	F6BFH
GBØON	ON4ON
GB2LBN	GM4UYZ
GB2LCL	GM3WML
GB2LCP	GMØFSZ
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GB2LTN	GMØHBI
GB2MHL	GM3IGG
GCØSTH/P	G4DIM
GD6YB/P	G3SWH
GM3IZD/P	G3IZD
GM5VG/P	GM3UTQ
GU7D	G3SJJ
GW7V	GMØGEI
H25X	5B4XF
HB9A	Bureau
HK3SB	HK3JJH
HLØN/3	HL1TUE
HLØZ/4	DS4CNB (3)
HP1XBI	F6AJA
HR1SAX	W3HNK
HSØ/SM3DYU	SM3CVM
HSØZBS	HB9AMZ
HS1RU	JG3AVS
HZ1CCA	IK7JTF
IBØONU	IØYKN
IF9/IT9AUP	IK1TZO
IG9/AC6WE	UA3DPX
II0S	IKØAZG
II8S	IK2IWU
II9R	IT9HLR
IJ7/IK7XIV	IK7XIV
IL3/IK2PZG	IK2PZG
IL3/IK3BPN	IK3BPN
IL3/IK3QAR	IK3QAR
IL3/IV3JWR	IV3JWR
IL3JWR	IV3JWR
IQØC	IKØNGI
IQ1A	I1JQJ
IRØMFP	IKØAZG
IU3SMM	IK3ZBJ
IY5PIS	IK5QPZ
J28YC	F6EJI
J41AG	SV1CIB
J42TCE	SV2CWW
J48W	SV1CIB
J52IM	KB9XN
J83ZB	JH1NBN
JG8NQJ/JD1	JA8CJY
JI6KVR/6	EA5KB
JM1YGG/JD1	7N3GNX (3)
JT1BL	VU2APR
JU4HL	HL1CG
JW2PA	LA2PA
JX6RHA	LA6RHA
JY9QJ	DL5MBY
K3MQH/KP2	K3MQH
K7CXJ/KH8	KH6JEB
K9AW/DU6	WF5T
KG4AU	W4WX/WT4K
KH2/JA1HGY	JA1HGY
KH2K/AHØ	JA1RJU
KL7/W6IXP	W6IXP
KP2AD	OK1AJY
KP3DX	KP4RF
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M7F	G3PMR
M7N	G3WOI
MJØAWR	K2WR
MUØASP	F5SHQ
N6JM/KL7	N6JM
N7QXQ/HR6	W7TSQ
NH4/NH6YK	NH6YK
OA176QV	OA4QV
OA4DHW	N5FTR
OD5/SP3DPR	SP3NYM
OD5PI	IK7JTF
OD5SB	PA3FWP
OE5T	OE5XVL
OHØ/F5YJ	F5YJ
OHØ/N4GN	N4GN
OHØMDR/1	OH1MDR
OHØTA	OH2TA
OH6X	OH6MSZ
OM9AJP	OM3CCA
ONØ/DK5JM	DK5JM
ON4YLC	ON4AMM
OX/DL6QK	DL6QK
OY/DL1MGB/P	DL1MGB
OY3QN	OZ1ACB
OY6A	DL1MGB
P29PL	VK9NS
P4ØW	N2MM
P4ØWF	WDØEWH
P43JB	OH6ZS
P43W	P43WLP
PA3EVJ	VE3MR
PJ2HB	WA2NHA
PJ8AD	KA9A
PR5L	PP5LL
PYØFF	W9VA
PY5CC	JA1VOK
R1ANF	RK1PWA (3)
R1DIG	OH5JRT
R1FJR	F5PYI
R1FJV	UA3AGS
RAØTA	RA3DEJ (3)
RF6FP	UF6DZ (3)
RIØTA	RA3DEJ (3)
RK1B/1	RV1AC (3)
RX1OX/FJL	DL6YET
SO7QF	EA4URE
S21B	W4FRU
S79MAD	GW4WVO
S92AT	NJ2D
S92T	NJ2D
SK7DX	SM7PKK
SO9DBR	DL4DBR
SP2LLW/1	SP2LLW
SV1CIF/8	SV1CIB
SV5/HAØHW/P	HAØHW
SV5/OM3LA/P	OM1APD
SV8/DK2OC/P	W4FC/WB4LFM
SX2THE	SV2TSL
TØØCU	W1CU
TØØXX	ON5FP
TØ4A	W1CU
T3ØWP	JA1WPX
T33JH	VK2GJH (3)
T77F	IN3WWW
T9/YO6DBL	YO9XC
T94DX	DL1FDV (3)
T95LGN	F/HH2HM
T97M	K2PF
TA/IK3GES	IK3GES
TA1ZJ	KGØKO
TA2DS	WA3HUP
TA2IJ	DJ9ZB
TA2LM	TA2IR
TF/AE4FY	K4GZ
TF/LA2IJ	LA2IJ
TF/G3XTT	G3XTT
TI9JJP	TI2JJP
TJ1GI	I2EOW
TJ1US	NW8F
TL8BC	F5IPW
TL8CK	F6EWM
TMØISL	F5IIU
TM1OOL	F6KWP
TM4B	F1MUT
TM4US	F6FGZ
TM8R	F6FGZ
TM9M	F6KNB
TN7A	JH1NBN
TR8JLD	D68JL
TR8VP	F6FNU
TT8AM	IK7JTF
TT8LJP	F5TRP
TT8ZH	F6KSE
TU2WL	IN3DYG
TU2XZ	W3HC
TU5CE	IK3HAT
UAØAZ	W3HNK
UAØFDX	F/HH2HM
UEØLMF	UAØMF
UE1QSK	RW1QQ
UFØO/UF6DZ	UF6DZ (3)
UK4YT	W2TK
UR4WWT	WR3L
UX2HO	I2PJA
V47KAI	K2SB
V47NA	K5SNA
V63BR	AA4US
V63KU	JA6NL
V73AR	JA3OIN
V73MM	JA3OIN
V73NH	JA3OIN
V73PL	K1ZUT
V73YAQ	JA3OIN
VE7USI	NL7TB
VE8B	VE3TIG
VIØANARE	VK4AAR
VKØTS	VK1AUS
VK9LF	JR4PMX
VK9LL	JH4RHF
VK9LR	JH4RHF
VP2EE	KA3DBN
VP2EY	HB9SL
VP5/I4ALU	I4ALU
VP5GN	K5GN
VQ9IE	WY8Q
VQ9VK	N1TO
VR6TC	WD6GUD
VR97SAR	VR2XRW
VS97SAR	VR2XRW
VS97UW	VR2UW
VU3RSB	VU2APR
VY1USI	NL7TB
W3CF/KP2	KK3S
WHØABC	JR6OCL
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XU6WV	KØTLM
XV7TH	SK7AX
XW1	JH1AJT
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YI9SK	HAØHW
YJ8UU	ZL2HE
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YV3ØT	W4SO/WS4E(4)
Z31VP	DJØLZ
Z32XX	KM6ON
Z38/OH3M1G	OH3GZ
ZA1M	IK2HTW
ZA1MH	Z32KV
ZD7HI	N2AU
ZD7WAC	WA2JUN
ZD8JF	GWØANA
ZD9BV	W4FRU
ZD9IL	ZS5BBO
ZF2AH	WA6VNR
ZF2DE/ZF8	N4BP
ZF2DN/ZF8	KP4AM
ZF2JS/ZF8	WD4JNS
ZF2MG	K7JI
ZF2PU/ZF8	W4OVU
ZK1AAT	KQ2I
ZP42I	ZP5WYV
ZW1ØØBH	PY4AA
ZY6WL	PY6WL

3B8GFPatrick, P.O. Box 104, Quatre Borne, Mauritius
3W6ARHiroo Yonezuka, B.P. 2659, Vientiane, Laos
4J8YL/Oksana, P.O. Box 214, Baku 370000, Azerbaijan
4K8DYL
4L3YBoris, P.O. Box 32, Warsaw 19, Poland
4O4DKurtovic Zdravko, P.O. Box 99, 74001 Doboj, RS, via Yugoslavia
5A1AAbubaker Alzway. P.O. Box 74421, Tripoli, Libya (2)
5H3CAJonathan Anderson, P.O. Box 39, Bariadi, Tanzania
5N7NJMP.O. Box 77, Zaria, Nigeria
5R8EWP.O. Box 3934, Antananarivo 101, Madagascar
5R8FJP.O. Box 620, Antananarivo, Madagascar
6Y5AHiroyuki Kozu, C.S.O. Box 8202, Kingston, Jamaica
7N3GNXTatuo Torii, 34-10 Sakuragaoka 3, Tama 206, Japan
9J2BOP.O. Box 34554, Lusaka, Zambia
9N1CUHennic, P.O. Box 4010, Kathmandu, Nepal
AP5ØARP.O. Box 700, Rawalpindi, Pakistan
AP5ØCMKamran, P.O. Box 1450, Islamabad 44000, Pakistan
AP5ØEHPeshawar, P.O. Box 1450, Islamabad, Pakistan
BA1DUAlan, P.O. Box 8091, Beijing,People's Republic of China
BD4IEGao, No.1 Xianquian St., Boshan, Zibo-city, Shandong 255200, People's Republic of China
BD4RAMiss Gu, P.O. Box 542, Nanjing, People's Republic of China
C37URAP.O. Box 1150, Andorra
CN8VBBenchimol Maurice, 10, Rue Ibnou Khalouya, 20500 Casablanca, Morocco
CP6CA97P.O. Box 1038, Santa Cruz, Bolivia
DL1FDVMario Lovric, Hagebuttenweg 4, 61231 Bad Nauheim, Germany
DS4CNBDr Lee Kwang San, P.O. Box 111, Kwang Ju 506-050, South Korea
EK4GKP.O. Box 9A/33, Yerevan 375062, Armenia
EP3HRP.O. Box 158, Shiraz 71555, Iran
ET3BTTensai, P.O. Box 6128, Addis Ababa, Ethiopia
EW93ØWNP.O. Box 50, Minsk 220102, Belarus
HR1RCRolando Chavarria R., Calle I. Milagrosa No.3611, Tegucigalpa, Honduras
HR6SWANelson, Apartado 11, Trujillo Colon 52101, Honduras
JG6URGTeturo Urakawa, 10768-1 Ono, Yamauchi, Saga 849-23, Japan
JWØMJack, P.O. Box 35, 80-325 Gdansk 3, Poland
KHØCEIgnacio G. Capuchino, P.O. Box 2249, Saipan, MP 96950
KL7AFTony Smaker, P.O. Box 1614, Kodiak, AK 99615
RA1QQP.O. Box 24, Cherepovets, 162627, Russia
RA3DEJDmitry, P.O. Box 2, Zarya, 143992, Russia
RK1PWANick Shapkin, P.O. Box 73, 164744 Amderma, Arkhangelskalja obl., Russia
RU1POL/ØAlex Spasskin, P.O. Box 44, 686610 Pevek, Magadanskaja obl.,Russia
RV1ACAlex, P.O. Box 104, St. Petersburg 192241, Russia
S21LAnwar, P.O. Box 5130, Dhaka, Bangladesh
SV1ACKAristomenis Karelas, 1 Bouboulinas Str., GR-17455 Alimos, Greece
UA1ZJWP.O. Box 72, Severomorsk 1, 184600, RUSSIA
UF6DZValentin Makhalov, P.O. Box 387, Yeroham 80500, Israel
VE9AAMichael E. Smith, 271 Smith Road, Waterville, Sunbury Co, NB, E2V 3V6, Canada
VK2GJHJack D. Haden, P.O. Box 299, Ryde 2112, NSW, Australia
VP8CWISerge, P.O. Box 559, Port Stanley, Falkland Islands
XJ9GMWest Island Amateur Radio Club Inc., P.O. Box 884, Pointe Claire/Dorval, QC H9R 4Z6, Canada
YBØWYNArwien Hartopo, P.O. Box 100/JKUPL,Jakarta 14001, Indonesia
YBØZBCClub Station, Lokal Penjaringan, Gedung Sasana Aneka Krida, Jl. Pluit Raya Selatan, Jakarta, Utara, Indonesia
YB8AUAEd Casteel, P.O. Box 1074, Palu, Sulawesi Tenggara 94001, Indonesia
YC8DNBP.O. Box 1361, Makassa 90013, Indonesia
ZD7BGilbert, P.O. 157, Jamestown, St Helena Island
ZD7MYP.O. Box 107, St Helena Island

Notes:

1. Do not send your QSL requests via the bureau. Use the address listed above.
2. Please include two green stamps (U.S. dollar bills). IRCs are not acceptable in Libya.
3. Refer to the addresses below for this manager's address.
4. Cards will be mailed from Venezuela; please provide adequate funds and not U.S. postage.

Wires & Pliers

A "good enough" HF all bands antenna

Mike Greenfield, N9JIY

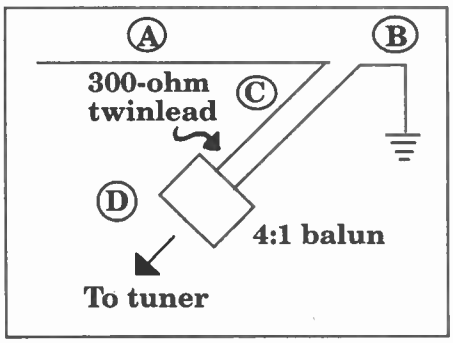
Most HF wire antenna plans optimize RF performance. They assume you have ten clear acres, tall poles where you want them, plus neighbors and an XYL who will let you hang wire any way you like.

This plan lets you optimize the location, neighbors and XYL you're stuck with, and still have a "good enough" HF antenna. And you won't have the RF-hot shack you get with an end-fed wire. Every location is different, so we'll just talk construction features, nothing about dimensions.

NOTE: Tuning of this antenna can be pretty sharp. You will need a good tuner, a cross-needle SWR meter, and a 4-to-1 balun. Some tuners have 4-to-1 baluns and cross-needle meters built in.

Look at the sketch at right.

Section A is the main radiator. Make it as long as you can. Get as much of it as high as you can. You can bend it around corners, but try to keep any bend less than 90°. You can slope/bend it up or down, with feedpoint up high or near ground level. Don't put any bare wire where somebody can touch it and get an RF burn.



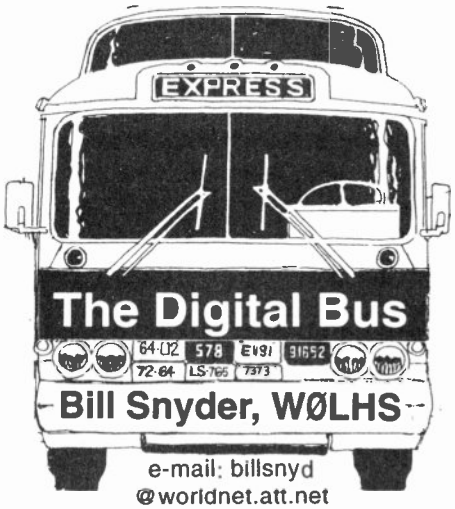
Section B finishes out a "dipole" electrical configuration, but goes to ground instead of hanging in the air. Keep the run to ground as far from and not parallel to the feed line as you can. Note that this radiator-plus-ground "dipole" configuration puts the feedpoint at one of the antenna end supports — easier to construct than center feed.

Section C is a 300-ohm TV twinlead feedline. Support it with twinlead standoffs and run it as near to your tuner as you can. Keep it away from metal if you can, particularly from running parallel to metal balcony rails and the like. We don't care how long this feedline is. Longer may work better, but don't let it curl up on itself.

Item D is a 4-to-1 balun, either in or near your tuner. Mine is on a post outside a basement window. Ten feet of 75-ohm coax runs through the window frame to my tuner.

Tuning is sharp, and it takes fiddling to find the right tuner settings. Write them down when you find them. Rain will have some effect on settings, too. If you have a "problem band," try changing feedline length first, then other lengths and locations until you get a combination that works. My antenna tuned to less than 1.5-to-1 SWR on everything from 1.8 MHz to 29 MHz right from the start. Signal reports are as good as I got with a dipole.

So, take heart, ye antenna challenged! Look at your real estate. With the construction flexibility this scheme offers, you'll find a way to hang a "good enough" HF all bands antenna. **WR**



I don't know if I am happy or not when I report that I now have succumbed to the awful/wonderful world of the Internet. I have been holding back for reasons known only to my inner self, and today I can't remember why I held back, or why I fell victim. Old age has its problems, and I'm rapidly collecting them all.

After I bought a computer book on how to surf, how to e-mail, etc., I signed up with a provider and settled down in my easy chair with the book. After I read a couple of random pages on "how-to," I tried my wings. The first thing I tried was connecting with the Mars pictures which I had been following on the boob-tube. I was amazed at the pictures, and so I spent quite a bit of time clicking on everything as it came up on the screen. Then I hit a picture in 3-D, and that brought back memories of my first exposure to 3-D photography over 60 years ago.

The video pictures in stereo are done like the motion picture shorts we processed in 1936-37 when I worked at the film laboratory of the Technicolor Motion Picture Corporation in Hollywood. They required the viewer to look at the screen through red-green filters mounted in cardboard frames like reading glasses: a red filter for one eye and a green one for the other.

The movies were shot with two side-by-side motion picture cameras synchronized together and mounted so the lenses were the same distance apart as the average human's eyes. By printing the left eye image in one color and the right eye image in the other, it is possible to filter the rays in such a way that the wearer perceives stereo pictures. The result is a sort of ersatz black and white picture, but the 3-D effect is there.

The movies we processed at Technicolor were MGM "Pete Smith" shorts called "Audioscopics." Due to the dye imbibition process, which was similar to four-color printing in newspapers and magazines, it was easy to produce the films in Technicolor.

The ten-minute Audioscopics were very popular. The theaters passed out cheap cardboard red-green glasses when a person bought a ticket. When the films were screened, the audience screamed when a mouse on the end of a long stick was poked out of the screen and right up to the viewer's nose. They did the same when the camera looked up at a tall building just as heavy iron safe was dropped on the viewer.

Later in my life when I worked for Arch Oboler Productions in Africa and California, I talked the boss into making a movie called "Bwana Devil" because I remembered how we made hundreds of Audioscopic prints (in about every language known, too) during my Technicolor years. I was on active army duty during the Korean war when Oboler called me up and told me he was about to start shooting the film in 3-D, so I missed helping the lions jump into every viewer's lap. The lions didn't jump into my lap until I saw the picture in Philadelphia during January of 1953, the day before Ike was inaugurated president. Oboler's movie used Polaroid glasses to achieve the eye separation, so the movie appeared in color. Oboler made another 3-D movie in Japan, but by then I was in the television commercial and industrial film business, so I had to pass up another 3-D opportunity.

When I first saw the Mars video in 3-D I didn't have the required glasses, so I borrowed a set issued by the ABC network and provided by a Wendy's hamburger joint. I put them on and discovered the filters were on the wrong eyes. By turning the glasses around I could get the three dimension view properly. What goes around, comes around.

E-mail stuff

I have been sending my column to Lou Ann Keogh, ***Worldradio***'s editor, via a ham friend, Dale Cary, WDØAKO, so this is the first column to go via e-mail from my own computer to hers in Sacramento.

In my 65 years of active ham radio, I have had a lot of fun exploring new methods of chatting on the bands. When I was in high school, I only worked CW on the 40-meter band. In those days (1933) we had either crystal-controlled or self-excited transmitters. My first rig, an economy model constructed from plans in a *QST* magazine article, was a tuned-plate, tuned-grid, push-pull job with 500 volts on the plates of the two 210 tubes.

Tuning a TPTG transmitter was done by resonating the grid tank circuit (a coil in parallel with a variable capacitor) to the plate circuit (same as the grid only with bigger plate spacing on the variable capacitor). When that happened the tubes would break into oscillation. The frequency control on such a rig was pretty fragile business.

To keep the transmitter inside ham band frequency limits (I didn't want the FCC to catch me out of the band) I, like most hams, had what was known as a "monitor." A monitor was a battery-operated one-tube device in a shielded box that could radiate a tiny signal strong enough to make a beat-note in my home-made receiver. By tuning my receiver to a ham band, then tuning the monitor to be heard in the RX, I was ready to plug the earphones into the monitor and tune the transmitter until it was heard in the monitor.

Then, by juggling the two "tank" capacitors in the TPTG rig, I was able to tune the transmitter until I could hear it in the monitor. Then I could load it into the antenna which at that time was a 66-foot wire fed with open wire line.

Tuning up in those days was a time-consuming proposition. And if I remember correctly, considerable time in prayer went with the process, for nobody with a self-excited rig (and in his right mind) dared to

load up his rig close to the edge of the band. The FCC issued a lot of "pink tickets" for off-band operation in those days. With that rickety frequency control for my transmissions, my first contacts on the 40 meter CW band were about 7.050 kilocycles (I use the word kilocycles, not Hertz, as I do my thinking of those days using the nomenclature of the 1930s.)

If the power supply for the self-excited rig did not have good voltage regulation, it would sound "chirpy" when it was keyed. Today, with modern commercially made rigs, I can't remember hearing any chirpy signals for many years. I seem to remember being able to recognize some of our local stations by the characteristic chirp they emitted in those good old pioneer days.

In 1934, I felt the lure of the five-meter band, so I bought a portable transceiver from the late Clarence Bates, W9DPT. He was a radio operator (later pilot) for Northwest Airways and had just been transferred to Fargo. Clarence complained that there was no one to work on that band, so he sold me the battery operated two-tube transceiver for ten bucks.

It took quite a while before I could talk another ham into going on five meters. Dale Schermerhorn, now W7JCU, lived in Fargo at the time he joined me on the five-meter band with another portable. I tried going mobile by using the five-meter rig in my father's car, so Dale and I chatted back and forth as I drove around town until the signal faded out from our wee little rigs.

Dale and I demonstrated two firsts in our area: five-meter aeronautical mobile at a Wahpeton, North Dakota hamfest, and later, "maritime mobile" near Fergus Falls, Minnesota by talking from a 14-foot rowboat to Dale on the shore. We were pioneers!

After my four-year army service in the Signal Corps during World War II, I had the teletype bug, so in 1953 I was the first one to try HF RTTY in North Dakota.

After RTTY, I was the first in the state on AMTOR, the first one on packet (had to wait six months before anyone else got on locally — had to work packet on 20 meters), the first one to have a packet BBS, and first one in the state to have a computer on RTTY, but I missed being the first on the computer Internet by a couple thousand, I guess. Growing old has slowed me down, or something. But now I'm on the Internet.

I recently discovered that the QRZ ham CD-ROM has some e-mail addresses in the database, so when I saw Bob Leo's (W7LR) e-mail address I sent him a note. Bob and I were on the Gatti-Hallicrafter's African Expedition fifty years ago. Back came his reply. Then I tried another to Bill Kurtti, WCØM, the manager for the North Dakota ARRL section, but my message bounced back by the system as undeliverable. One good contact, one failure. And so I am on the Internet, and e-mail too.

W5DEW—The Dew Drop

Here's a letter from John Neathery, W5JIQ, in Huntsville, Texas which I received recently. There are still a few of us around who remember Mary Dosland, the "Texas Dew Drop."

"Your column in the July issue of ***Worldradio*** about Mary Dosland, W5DEW, brought back fond memories. In the summer of 1941 I was a student at Port Arthur College in Port Arthur, Texas, studying for a commercial operators license. Anyone who tuned the ham bands in those days was familiar with W5DEW, "The Little Dixie Dew Drop" and her OM at that time, Buzz, W5BUZ.

"As a newly-licensed 19-year-old ham I had the privilege of visiting their home and viewing what to me at that time was the ultimate ham station. I was quite impressed by the room full of head-high, rack-mounted equipment. I had not heard anything about W5DEW since those pre-WWII days. Thanks for bringing me up to date."

Write to me: Bill Snyder, WØLHS, 1514 12th St. South, Fargo, ND 58103-4134, or e-mail: billsnyd@worldnet.att.net. 73 de Bill and DIT DIT. WR

FM, Repeaters Repeaters Repeaters & VHF

Bill Pasternak, WA6ITF
28197 Robin Ave., Saugus, CA 91350
(Internet) billwa@itf@aol.com · (AOL)BILLWA6ITF
(Netcom)newsline@ix.netcom.com ·(24-hr voice/fax) 805/296-7180
e-mail only up to 50 kilobytes can also be sent to wa6itf@juno.com

Politically incorrect?

If you are not involved in 6-meter DXing, the frequency of 28.885 will mean little to you. If you are a 50 MHz or higher DX chaser, then you already have an auxiliary receiver monitoring .885 night and day.

For years, 28.885 has been the defacto "6 Meter DX Alert" channel. The simple theory behind its use is that if the MUF is up above 50 MHz, it definitely (most times) has affected 29 MHz in the same way. While primarily for 6 meter addicts like me, from time to time, .885 also boasts announcements of DX opening on 2 meters and above. Simply said, it's the place to be listening.

Now there appears to be a growing movement to change this alert frequency lower in the band. Not based on any technological need, rather there appear to be a growing number of hams who feel that having the calling frequency outside the 10 meter spectrum currently available to Technician class hams is not politically correct

No, I am not kidding. Those favoring a move of the 28.885 frequency to a lower frequency would decrease this gap of hostile feelings between holders of Tech+ licenses and those holding General class and above. They claim that it's the conservative political nature of Amateur Radio that keeps 28.885 as the "DX Alert" channel, so that higher class license holders can continue to "look down their noses" as Tech+ operators and lord it over the Techs that their input is not wanted, needed or welcomed on the frequency.

These politicos are opposed by those who note that as the MUF rises, at least 95% of the 10M activity is below 28.500. They say that trying to maintain a liaison frequency in this portion of the band would be impossible. This would be particularly true on the suggested new "politically correct" frequency of 28.495 MHz which some claim to be the most popular DX frequency on the whole band.

Proponents of keeping 28.885 as the "DX Alert Channel" note that things are relatively peaceful up in that higher slice of 10 Meter RF territory. It is known to those who want to use it, and it works. Many of those monitoring it even have dedicated radios, such as the now-discontinued Radio Shack HTX100, as a designated 28.885 rig. Even with 25 watts and a simple dipole a ham can communicate effectively on 28.885. During possible F2 openings on 6M to a given part of the world 99.9% of the time, 10 will be open there also.

In my view, what the "politically correct set" seem to forget is the real reason that 28.885 was established in the first place. That is, as a liaison for spotting work to coordinate 6 Meter DX QSOs, to announce rising MUF information, to exchange ideas about 6 meter operation and more. As such, one does far more listening than one does talking. In fact, the whole idea of 28.885 is to listen and learn. That's why transmissions are kept relatively brief, not unlike a police or fire dispatch channel.

As such, those who want to sit there and ruminate in depth on specifics will soon find the welcome mat pulled out from under them. Those in favor of maintaining 28.885 "as-is," counter the "politically correct" arguments of those favoring change by saying that there is nothing at all wrong with maintaining a calling channel that happens to exclude Tech+ license class holders. They note that Novice class and no-code Techs cannot operate there either, and that the code free variety of Technician now outnumbers those who have passed a CW test — doing so by an ever-increasing margin.

Those wanting to see 28.885 moved lower in the band retort that the time has come to do away with what they call "artificial barriers" so all hams can have access to the "DX Alert" channel.

D.C. repeater on Internet

Believed to be the first interconnection of the Washington DC area's 2-meter repeaters to the Internet, the Green Mountain Repeater Association is not only connecting their repeaters (146.61, 146.88) to other amateurs around the world but to other repeaters! Imagine driving around town talking through your two meter repeater to another repeater operator who is in California or Canada. Well, it's happening in our nation's capital on a part time basis.

More and more activations are being initiated throughout the states, albeit on a small scale. Linking of Amateur Radio to the computer world is a slow process that will take time for some of our amateurs to accept. But as I recall, there was much reluctance and resistance to the "Donald Duck" audio of SSB when it was introduced to the amateur community.

The repeater/Internet connection will not be as revolutionary as the explosion of repeaters in the '70s, but will, in my opinion, be another mode of transmission for amateurs to explore, use and enjoy in the best interests of Amateur Radio and public service. *—submitted by Murray Green, K3BEQ*

APRS assistance on the air in NY

The Automatic Position Reporting System is the fastest growing segment in packet radio today. As most of you already know, its applications include tracking of real-time events such as parades and marathons, instantaneous weather updates for SKYWARN nets and much more. Unfortunately, it's a bit daunting for new operators to set up and operate.

To assist such newcomers in the New York City metro area, there is an APRS Users' Net each Wednesday evening at 8:30 p.m. on the W2CMA repeater whose output is 145.23 MHz. The usual host of this net is Stu Siet, WA2JNF, who also runs a wide-area APRS digipeater from the same tower. Topics discussed run the gamut from where to get the programs and how to set them up to discussions on how the

local and national HF APRS networks are laid out.

Coverage of the W2CMA repeater reaches coastal southwest Connecticut, western Suffolk County, down to the New Brunswick area in New Jersey and much of Westchester County. *—via Hudson Division Loop*

Repeater news from Israel

Excerpted from *Hagal International* – Electronic Edition

It seems as if a month can't go by without some new work being done by the IARC's repeater committee. The latest development is some further refinements in R7, the Tel-Aviv repeater. A new southern-end receiver has been added on the top of a high-rise in Ashdod. This compliments receivers in Natanya and Tel-Aviv. In the past you had to use different PL tones in order to trigger the different receivers, to get the best signal into the repeater's receiver for your location. Now, all PL tones have been standardized to 91.5 Hz for all receivers, and a system of automated "voting" has been adopted for the receiver with the strongest signal in its input to operate the machine's transmitter.

VHF/UHF/Packet rules changes in the UK

A Gazette Notice — that's the U.K. equivalent of an FCC Report and Order here in the USA — was published last March, announcing a number of changes to all UK Amateur licenses, effective on April 1st.

The main shift is that part of the 10-gigahertz band, from 10.150 to 10.300 gigahertz, is being withdrawn from the Amateur Service in that nation. Changes have also been made to the identification requirements when operating on a repeater, in that the simplified identification requirements for net operation no longer apply to operation through repeaters. From the 1st of April call signs must be given at the start and end of communication with each station, as in normal operation.

Finally, the definition of a packet radio "Mailbox" has been clarified and there are also a number of other minor administrative modifications. The full text of the Gazette Notice can be found on the RSGB world wide web site at http://www.wrsgb.org *—information provided by the RSGB*

Guest spotlight: Up-up and away!

This month our guest spotlight section features an article on Amateur Radio high altitude ballooning experimentation written by Doug Howard, KG5OA, and first appearing on the *VHF Reflector* in early July.

North Texas balloon #7B goes to Italy!!!

— Doug Howard, KG5OA

The seventh mission of the North Texas Balloon Project finally took to the air at 10:14 a.m. on 19 April, 1997, from the Cleburne, Texas Municipal Airport. Two hours later, it had a soft landing in a pasture near Italy, Texas, and was recovered by NTBP personnel within 30 minutes. The launch was delayed from its scheduled time of 9 a.m. by 1) local winds aloft data not being available, and 2) the unexpected bursting of the first balloon during inflation, the cause of which was unknown. But the parachute spreader ring, swivels and woven tow line allowed a nice easy descent.

The GPS experiment experienced two separate difficulties during the flight. The Delorme Tripmate GPS receiver failed to maintain track on enough GPS satellites to provide accurate altitude data. In fact, the entire altitude data set was suspect and finally disregarded. However, the Tripmate did provide accurate latitude and longitude data. The other difficulty was related to the GPS beacon transmitter itself. The Yaesu FT-530 output power level dropped to near zero at 75 minutes into the flight. It has not been determined why the HT power dropped, but extremely cold temperatures are a likelihood.

The FM crossband voice repeater was the highlight of the mission. The following locations were able to hear and/or work through the balloon. In Texas, Ft. Worth, Dallas, Houston, Plano, Irving, San Angelo, San Antonio, Kerrville, Newberry; Clovis, NM; in Louisiana, Shreveport and Bossier City; Wichita and Hays in Kansas; and last, but not least, Vicksburg, Mississippi!

A great time was had by all operating through the balloon repeater. In addition, the 35mm still camera took some great pictures every 3.3 minutes which lasted nearly the entire ascent leg. These photos will be scanned and will be available for downloading within the next few weeks at our web site: http://procorp.com/procorp/NTXBP.htm

Those wanting QSL/SWL cards for NTBP #7B, please send requests to kg5ie@flash.net. I would like to sincerely thank the Lockheed-Martin ARC in Fort Worth for supporting the NTBP. It took two very, very troublesome years to accomplish our seventh flight. I'm extremely proud of the extraordinary patience and efforts that the members of the LMARC displayed throughout this difficult time. Hopefully, we'll be ready to fly again soon!

A bit on EME

Those active on 2M 'moonbounce' will be interested to hear that Gus, SM5DIC, is now active as 5X1D from Uganda on 144 MHz, EME. He uses 300 watts to a 17-element 'Boomer' antenna and has already made a contact with W5UN. Gus would welcome further 2M EME skeds, and can be contacted at the following e-mail address: jageror@wfp.or.ug

Don't forget beacons!

Ron Galbraith, NØEC, reminds us to listen for the NØEC/B 2-meter DX Propagation Beacon from Northern Colorado grid square DN7Ølf. The beacon operates on 144.275 MHz into an omni-directional, horizontally polarized antenna at an EIRP 200+ watts. Ron says it's been going in different stages for the past several years, but is now running 24 hours a day.

So far, he has received QSN reports and QSL cards from CA, OR, WA, ID, WY, SD, NE, KS, MT, NV, UT, NM, TX, OK, MS, AR, TN, LA, and possibly others. If you hear it send e-mail your confirmation to NØEC@qsl.net.

Ron adds that he will be putting up a beacon on 432 MHz very soon also, with same power, and same beacon controller. **WR**

Search And Rescue Communications

Jerry Wellman, WB7ULH
P.O. Box 11445
Salt Lake City, UT 84147
E-mail: jw@desnews.com

My wife Janet, KC7VKX, returned from a family re union with a fun story about the Friday night, whole-clan meal. It was billed as "a meal to be remembered!" Each group was contributing a portion of the grand meal, each a la Dutch oven. The menu was mouth-watering, from steak and potatoes to peach cobbler. It promised to be a meal to be remembered.

Yes, there is a "rest of the story." The cook doing the steak had never tried it in a Dutch oven before. The peaches for the peach cobbler were fresh peaches (i.e. no syrup to mix with the cake mix). The potatoes were rather thickly sliced. Have you ever done Dutch oven cooking? It's an art form. It takes practice. Some dishes take longer to cook than others. Some planning is needed so food arrives (cooked) in the proper sequence. A major family gathering at a campground isn't the time to try something new.

The potatoes were cold after several hours of cooking. The pot was huge, the slices were thick, and the cooking time underestimated. Many of the items one would normally cook with the steak (mushrooms, onions, peppers, etc.) were forgotten. The steak was a little tough from being cooked quickly and not simmered. The peach cobbler suffered from lack of syrup (the stuff in the canned peaches you would usually use). And, the whole meal was about two hours late because the process began at the normal home cooking hour and not the "we're in the wilderness with campfire" cooking schedule!

Tempers flared, curt words were exchanged, and the evening meal was memorable, but not pleasantly experienced!

How do we apply this to Amateur Radio? We assemble the basics, we prepare in advance, we practice, and when the real thing happens, we're ready. No emergency is a pleasant experience, but doing a good job and helping relieve suffering makes the effort worthwhile. Let's talk some basics again. Recent observations prompt me to remind that we cannot build something exotic until we have mastered the basics. Fortunately we have enough new Amateur Radio operators entering the ranks that the basics must always be top priority for our training.

The first area is our radio equipment, safety, and setup. I recall fondly the Civil Air Patrol days when we would undertake the semiannual field communications exercise, or COMMEX. We would grab our radios, antennas, generators, support material, and 50 or so CAP members and trek into the wilds to set up an emergency station. You may identify this with the annual Field Day and you should not underestimate the importance of participating.

Some of our COMMEX undertakings would include the local sheriff or other SAR groups and every one of these events resulted in a tremendous learning event. Our CAP COMMEX would teach operators what the controls did, how to repair an antenna connection in the field, how to trouble shoot audio problems, and basic setup with an emphasis on safety (ground rods, safety flagging, cable bundling, etc.) We all explored ways to hang antennas from trees and would set up a portable repeater on a nearby hill.

Much of what we did on these exercises can be done by your group and you don't need to wait for Field Day. You should include some familiarization sessions with today's complex radios, include HF-SSB if possible, set up a repeater (not a crossband radio!) if you can, and put up a portable packet node.

The concept of a field exercise must be kept simple and focus only on three or four objectives. You're not going to make experts from one or two field outings. You might focus on equipment setup and generator power. Your next exercise might include HF-SSB and packet. Keep it simple. If you make it overly complex (like the family reunion dinner) you'll spoil the soup, so to speak.

Some other events might be a set of technical seminars that explain antenna SWR, connectors, microphones, power supplies, and deviation. Many of our operators are new and do not understand the effects of high SWR, or the problem of trying to power a radio by using real small wire over great distances. You should also focus on operation of radios to include simplex, sub-audible tones, repeater reverse, repeater offsets, and simple radio programming.

The next basic skill must be listening. During one recent event, the surrounding activities distracted one radio operator and he forgot he was supposed to monitor the stuff coming out of the earphone in his ear. This suggests some training during a simulated high-noise environment. You could have several televisions running interesting movies at high volume along with several scanners turning out loud police calls. The objective would be to copy various messages amid the external noise and distractions.

Listening skills are not usually inherited or resident without some teaching and practice. We teach listening skills by learning the phonetic alphabet, learning applicable terminology, and expanding our vocabulary. The practice comes through exercises designed to challenge our skill. Here are some ideas to teach listening.

Record some emergency calls. Often you can do this with the cooperation of your local fire or police agency. If you explain what you need, they might agree to record some training tapes. You want some

simple calls such as a suspect or vehicle description and move toward complex scenarios where you're keeping track of multiple emergency vehicle dispatch, arrival, and assignment. You might want to include names with phonetic spellings, dispatches with background noise, or dispatches that are interrupted with priority messages.

I always like to include a recording of an HF-SSB net roll call. I ask the "students" to copy the called stations as well as the responses. Usually the static and normal HF signal quality make for a challenging exercise. You can then introduce local noise such as a loud conversation nearby or some other radio noise. The idea is to move from easy to challenging. Don't get too inventive too soon. You don't want to discourage listening. After several such sessions, you'll be impressed at how well your listening improves.

Remember, the idea is to develop skills, not to develop showoffs. It is great when one or two of your group can display excellent listening skills, but don't let them create an atmosphere of competition. The idea is for all of you to gain these skills, not to see who can do it best. If your exercises begin to be a contest, some will be "defeated" and decide they are not able to listen to these challenging scenarios.

The final area of concern is that of speaking. I've mentioned it in the past, but perhaps another few suggestions are in order. Communication is a two-way process. We must receive the message and offer some feedback either to acknowledge we understood the message, or to formulate a meaningful response. Without the return loop, communication didn't happen and the sender is left to wonder if he is transmitting "in the blind," or whether someone has the message and is delivering it to the recipient.

Many years ago I would approach CAP radio operator training with some prepared message books. Each book had about 15 canned messages from one sentence to five sentences. Each sentence had several key words that could be misunderstood if not spelled or spoken clearly. All of the messages required a response of some sort. One message may ask for a list of persons present at the other station. Another message might ask for the name of the governor or mayor. I would use low-powered radios in the room and have a mini-net to pass traffic. It seemed at first blush to be overly simple and not educational. The messages were canned, there was no scenario, and all you had to do is read several sentences and copy the response.

These training sessions always surprised me, however, because many operators freeze up when operating a radio while reading a message. A simple request to repeat a word would sometimes create panic. I became a believer in using these "message books" and even experienced operators were caught making errors and learned from the exercise.

I don't believe in re-inventing the wheel. These message books served me well for about 10 years and were a simple and quick training session. I also customized the books for various category of student. The "pilot" series contained messages one would expect to send or receive from the Air Traffic Control Center, from the air operations officer, or from the airport tower. The radio room series ran the gamut of search team information and briefings, to 'operations normal' reports. You can get creative, but there's no need to go beyond what your group would normally do. I did a fun series of Apollo to NASA messages and everyone understood the remote probability of our actually doing the same, but greatly enjoyed pretending (and learning).

A final thought. A good project is the collection of user's manuals for various equipment. I have made copies of every radio, TNC, power supply, or technical manual I've come across and have them in a file cabinet in labeled folders. Most of the time it's the radios I own for which I need the manual, but once in a while someone will need a manual that I've collected along the way. There are books for sale that reproduce operator manuals and these might be a super investment if you're seeking to develop some resource materials and encounter many different radios.

It's one thing to know how to use your own equipment, but it's quite another to find yourself at an emergency operations center and not know how to change frequency of a different rig. You might also find yourself trying to talk someone through the operation of a radio that neither of you has experience with! (That's also an idea for another training opportunity!)

Don't get caught up in thinking new and fancy radios make better operators. There are still a lot of thumbwheel tuned radios and crystal controlled radios in use and one is hard pressed to tell the difference between a fancy radio or an "old" radio at the hands of an experienced communicator. Many times the combination of a fancy radio and a newly licensed operator create challenges even for the best of net control operators or instructors.

Remember the Dutch oven analogy. Keep it simple. Practice in advance. Test what you're doing before you have an audience. This applies to training sessions, presentations, simulated exercises, and the real thing.

Be safe, enjoy Amateur Radio, and keep your communication skills sharp. Until next month, best wishes from Salt Lake City. WR

Computers & Basic Stuff

C.H. Stewart, KD5DL
P.O. Box 181
Duncan, OK 73534

Junkyard stuff

Maybe it was fate, but I had a previous call sign I didn't particularly care for; its suffix was JYD. Not really smooth on CW and not particularly good in the phonetics department. Not, that is, until Hank Stokes, KB5XM, pointed out that JYD would make a great "Junk Yard Dog."

However, it wasn't until I followed the advice of Don Johnson, W6AAQ, that I actually ventured into a junkyard. He suggested looking there for parts for his all-band mobile "screwdriver" antenna. I found so much good stuff there that I now hit the junkyards quite often; at least once or twice a month.

What kind of good stuff? Just before Christmas, I found literally hundreds of the big 350 amp-hour cells the telephone companies use for backup power. By big, I mean each 2-volt cell weighs about 85 pounds!

The cells were very nearly brand new, and selling for the price of scrap lead! For about 75 cents a pound I bought enough cells to make a 12-volt emergency battery for my shack, and our club's technical committee bought two more sets, plus some spares, for our VHF/UHF repeaters and mobile antenna trailer.

Last Field Day we were strictly battery powered, and we estimate our repeaters can operate on emergency power for more than a week!

On another occasion I found a bin full of Motorola low-band VHF transceivers — again at junk metal prices. Mostly, though, I find leftover circuit boards, lots of transformers and motors, and miles and miles of inexpensive wire. My latest antenna, for example, set me back $1.50, and I still have some of the wire left over!

Among parts on the printed circuit boards I've found are wide-band and audio op amps, precision waveform generators, quartz crystals, mixers, and the usual assortment of transistors, diodes and digital gates. I gave a handful of these parts to our area's most recently licensed amateur, Dan Adkins, KD5ACG, and he fabricated his first homebrewed radio, a 40-meter direct-conversion receiver, with them.

If you haven't explored your junkyard yet, here's how to go about it: If the sign out front says "Keep Out," then do what the sign says. Otherwise, look for an employee who might be able to answer a few questions.

First, explain what you're looking for. Ask if they have any, and if it's for sale. Usually the answer is something like, "Yeah, check over there." That's the go ahead to start exploring. (Of course, you might have to "Check with the office first," but it's the same routine).

On the first trip just try to get the lay of the land. My junkyard separates different metals into separate piles, and they're always in the same relative places, time after time.

I normally hit "motor mountain" first because it's near the front gate. The mountain is where all the electric motors and transformers (practically anything wound with copper wire) winds up. There I've found high-voltage and battery-charger transformers, charger ampere and volt meters, regulator parts, switches and, lately, several hefty (high current) variable transformers.

Nearby is a bin for computer equipment (mostly printed-circuit cards), and another bin or two full of scrap copper and copper wire.

The circuit boards are usually thrown away because they don't work, but if you're a scrounger you might find the 25-cents-or-so per card worth taking a chance on. One of my best finds included some modem cards that had diode ring mixers, ferrite toroid chokes, oscillator crystals, and other parts on a board fully-populated with socketed ICs. The SBL-1 mixers would have cost far more had I ordered them from a parts supplier.

The wire bin is usually full of telephone company wire (great as hookup wire), high current drop line and insulated house wiring. Sometimes there's copper-clad steel with which to make antennas, and there's always enough regular copper for radials and grounds.

A quick way to "guesstimate" how long a wire a coil contains is to mul-

tiply the number of turns by the average diameter and multiply again by 3. Twenty turns of wire wound into a bundle two feet in diameter, for example, is about 120 feet long.

When I go looking, I take along a tape measure, a small magnet, a set of screwdrivers, diagonal cutters, a crescent wrench, a VOM (volt ohm meter) and a small bag.

The magnet helps me identify copper-clad steel wire and other iron based metals. The VOM lets me check continuity in wires, transformers and some of the circuit board parts.

The people who run my junkyard let me disassemble things to get only the parts I want, and that's why the tools and the bag. Why pay for several pounds of steel chassis when all you want are the relays or meters mounted on it?

BASIC Pruning

This month's BASIC offering is for antenna builders.

Any antenna, junkyard or otherwise, always seems to need pruning. To cut a dipole, for example, the standard formula is to divide 468 by the desired frequency, in megahertz, to find the total length in feet.

Then the instructions usually say something like "make the wires a little longer than they really need to be. Then cut them back, a little at a time, until you get the lowest SWR."

While low SWR has nothing to do with antenna performance, it can be a fair indicator of resonance. When an antenna is off-resonant, its reactive component is greater than zero, and that has the effect of increasing the amplitude of any standing waves on the transmission line.

When its reactance is zero, an antenna is resonant. While standing waves may still exist on the line for other reasons, they are not due to antenna reactance, and will be at minimum value for the antenna/line combination.

So, this month's BASIC program can help design an antenna for near resonance, then give you some indication of just how much to add or remove from each end for it to reach resonance (or be very close to it).

```
10 CLS; PRINT "PRUNE.BAS, BY KD5DL, 10/97": PRINT
20 INPUT "DESIRED FREQUENCY, MHz";A: B=234/A+.25
30 PRINT "EACH DIPOLE LEG = ";B;" FEET.": PRINT
40 INPUT "FREQUENCY OF LOWEST SWR, MHz";C: PRINT
50 D=C*B/A: E$="SHORTEN": IF B<=D THEN E$="LENGTHEN"
60 PRINT " TO PUT AN ANTENNA ON ";A;" MHz"
70 PRINT " ";E$;" EACH LEG BY ";ABS(B-D)*12;" INCHES"
80 END
```

The program computes the length of each dipole leg and adds three inches for display in line 30.

After the antenna is built and erected, sweep the band, using an SWR meter, to determine the antenna's actual resonance. Do this by noting the frequency at which SWR is at its lowest value.

Then plug that value into the program at line 40. Line 50 determines the difference between the antenna's current resonant frequency and the desired frequency and shows by how much to shorten or lengthen each leg. We purposely made each leg a little longer than necessary so that the final adjustment will usually be to shorten it.

That's it. Assume that you want to put up a dipole centered on the middle of the Novice 10-meter voice band. Input 28.4 MHz as the desired frequency and line 30 tells you to make each leg 8.489437 feet (about 8' 5-7/8") long.

Assume then that when you sweep the band you discover the lowest SWR is not at 28.4 MHz. Say it's at 28.0 instead.

Plug that value into line 40 and you'll see you need to shorten each leg by 1.434837 inches (1-7/16") to attain resonance where you originally wanted it, at 28.4 MHz.

Would I go to the trouble to shorten the antenna an inch or two? Probably not — especially if the SWR across the desired band stays below 3:1, but for someone who likes to pick nits, this program offers a way to pick them only once.

Next time: How to determine your station's compliance with the FCC's new RF Radiation Standards. If you need to find out before our next column, send me an SASE for a BASIC listing and explanation. Until then, keep radio active. WR

YLs on the air

Kay Eyman, WAØWOF
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e-mail: waøwof@juno.com

Contests

Rosel Dach, DL2FCA, was the DX winner in the CW portion of the DX YL to North American YL contest, sponsored by YLRL in April, and Lia Zwack, WA2NFY, was the North American winner. No DX YLs submitted logs in the SSB portion, and Joyce Collins, N8UOO, was the North American winner.

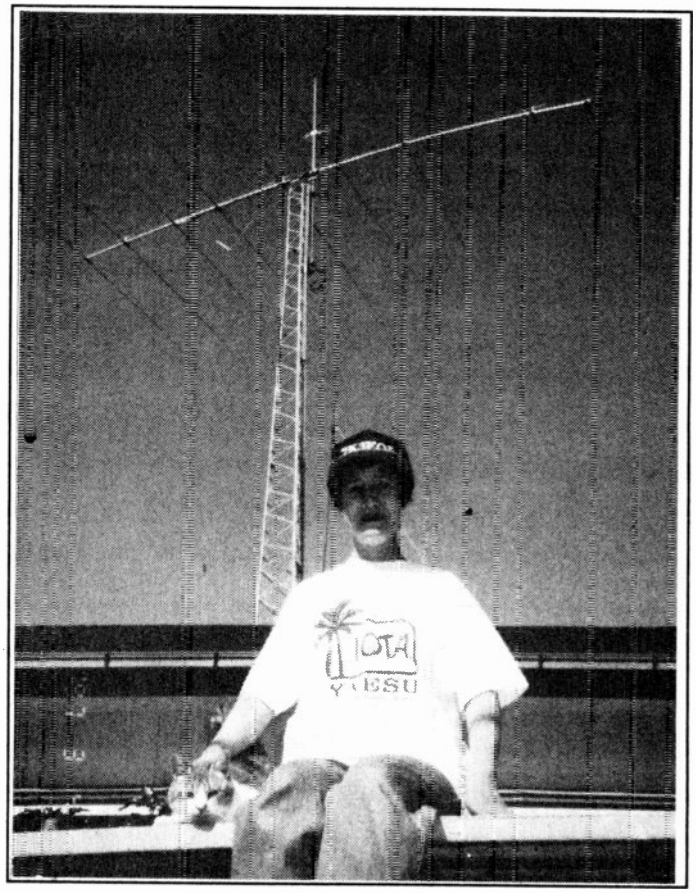
YLRL will also sponsor the YL Anniversary Parties in October. The CW contest will be held from 1400 Wednesday, 8 October to 0200 Friday, 10 October. The SSB portion will be held from 1400 Wednesday, 22 October to 0200 Friday, 24 October. Logs should be sent to Nancy Hall, KC4IYD.

Meetings

The Japanese Ladies Radio Society held their 40th annual convention at the Tokyo Imperial Hotel, on 26-27 July, 1997, with 151 members and 28 OMs in attendance. New officers for the next two years were elected, and all are from the 6th district. Nobuko Uchigama, JR6XIX, is the new president; the two vice-presidents are Ayako Hori, JA6VRG, and Fumiko Okazaki, JA6VWV, and the two treasurers are Sumiko Kitazono, JA6FCI, and Sachie Yamada, JE6BLA. Sachiko Iwami, JA6RHA, will be the secretary, and Kazuko Nagoya, JR6KXK, will be the DX chairwoman. Congratulations to all the newly-elected officers. The next general meeting of the JLRS will be held in Osaka, in July, 1998.

This is the last call for CLARA's 30th anniversary party, to be held in Aurora, just north of Toronto, on 26-28 September, 1997. Organizer Cathy Hrischenko, VE3GJH, reports that YLs from 10 countries have registered, with several coming from New Zealand, Australia, and Europe. To celebrate CLARA's new year, there will be a New Year's Eve dance on Saturday night, and a YL CW contest is also scheduled. A steam train ride after the Sunday breakfast has been added to the agenda, and other surprises are promised.

Members of the Ladies Amateur Radio Association of Orange County, California, will host the 1999 YLRL Convention, to celebrate YLRL's 60th anniversary. The meeting is scheduled for 30 July to 1 August, 1999, and will be held aboard the *Queen Mary*, which is permanently docked in Long Beach. Attendees can stay in rooms on the ship, and there are many things to see aboard, such as the Wireless Museum and the Wireless Room, with its Amateur Radio station W6RO. Martha Barron, KA6TYO, is helping to arrange the details and will have more information available soon.



Noriko Tokura, 7K3EOP, operated from Miyake Island, AS-008 in July.

YL Updates

Congratulations to Michelle Sciarini, KB8ILX, who won YLRL's $1,500 scholarship for 1997, which is administered by the Foundation for Amateur Radio. Michelle will be a freshman at the University of Akron, where she plans to major in Biology.

Unni Gran, LA6RHA, operated as JX6RHA, from Jan Mayen Island, from 24 July to 1 August, 1997. Unni along with Turid Bjerke, LA9THA, were also scheduled to operate from Svalbard during the last two weeks of August, as JW6RHA and JW9THA. QSLs go to the respective home calls. Unni and Turid met with the Governor of Svalbard to complete the coordination of the YL Polar Meeting, to be held there in 1998.

Ruth Tollefsen, LA6ZH, Ruth Geering, IT9ESZ, and their husbands met in Sicily in June for a few days of visiting and sightseeing. Then the two YLs left for Iceland, where they operated as LA6ZH/TF and IT9ESZ/TF, on all bands. Unfortunately, Ruth, LA6ZH, fell ill on 17 June, the same day that her husband, Tor, arrived in Iceland to join her.

Although she thought she had come down with a touch of stomach flu, friends called a doctor, who ordered an ambulance as soon as he had examined her. Ruth had suffered a heart attack and spent a week in the hospital in Iceland before she could return home to Oslo. The good news is that Ruth is recovering rapidly, and her doctor has approved her trip to the CLARA meeting in September. She reports that she is feeling stronger every

day and passes along a bit of good advice for everyone: "Indulge in regular physical exercise, take daily walks in the fresh air, and take time off to relax during the day with a good conscience."

LA6ZH/TF wasn't able to make as many CW contacts as planned, but Ruth, IT9ESZ/TF, made some 800 to 900 SSB contacts. LA6ZH said it was quite impressive to listen to her professional handling of the pile-up in fluent English, German, French and Italian. QSLs go to their home calls.

Noriko Tokura, 7K3EOP, and her husband Masao, JA1EY, operated from Miyake Island, AS-008, from 6-30 July. Noriko was also added to the list of YL operators on the Willis Island DXpedition in September. There will be three YL operators, using their own call, and several OMs, using another call.

New YL on Niue

Paul Johnson, ZK2PJ, and Janis, ZK2JJ, moved to Niue Island about six months ago. In February, they saw a job advertisement for a general manager for the Niue Power Corporation, and Janis writes that they decided to "have a go" at it. Then they began trying to find out as much as possible about this island in the South Pacific. An interview was scheduled, and panic mixed with other emotions, as their dream of life on a tropical island seemed closer. There was even more panic when Paul won the job, out of 38 applicants, and they were given four weeks to pack up and "sail forth, as it were," into this new adventure.

They still knew very little about their new home, except that it was described as "The Rock of Polynesia," had a population of about 2,000, and enjoyed far higher temperatures than they were used to in their former home in Pahiatua, New Zealand. Niue is described as a raised coral atoll and is the largest single rock island in the world. While it didn't fit their preconceived notion of a tropical island, Janis writes: "It's a very lovely place with spectacular limestone caves that have formations that look as though they have been dreamed up for a children's fantasy story, brilliant clear blue seas, and fabulous black velvet nights where the moon and stars seem to hang in the sky close enough to touch."

Because Niue is so isolated, one of the first things Paul and Janis did was to get the radio up and running, and to get licensed there. It was just a question of submitting their New Zealand licenses to the local Telecom office and paying the fee. Being able to use their initials as their call signs was a bonus. Paul was number four on the Niue license list and Janis was number five, so there have been very few permanent operators on Niue. Paul and Janis are the only Amateur Radio operators there now.

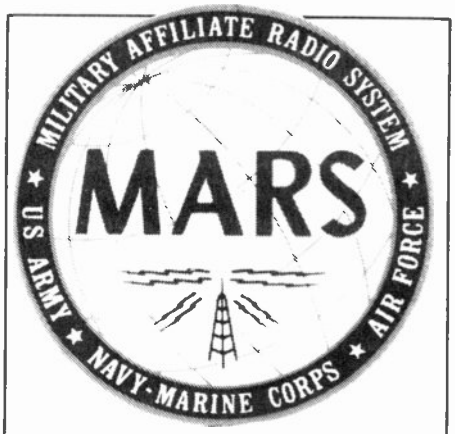
Janis got into Amateur Radio a few years ago when Paul got his license. After listening to him talking away night after night, she surrounded herself with books, took a correspondence course, practiced Morse code on her computer, and earned her Novice license, making her first contact with the callsign ZL2NBU.

Next she earned her second grade license, ZL2TUN, and finally her first grade license and the call ZL2ATA. As Janis says, "And thus is the path that has led me to be now sitting on a tropical island with a new call sign, looking over a back garden that has an aerial strung up over a series of coconut palms."

Paul and Janis will be on Niue for two years and plan to make Niue a little better known. Their QSL Manager is Alan Roocroft, VK4AAR, c/o Post Office, Dalveen, QLD 4374, Australia. **WR**

KE4ITN foils prison escape

Thomas Sorrow, KE4ITN, of Cleveland, Alabama, has been recognized by the Alabama Department of Corrections for confiscating electronic parts and schematics for a transceiver from an inmate. The inmate, serving a life without parole sentence for capital murder, was plotting to escape from the maximum security St. Clair Correctional Facility at Springville, Alabama. Sorrow, an Extra Class licensee and correctional officer employed at St Clair, credits his hobby for his being able to identify the contraband and to assist in foiling the inmate's escape. *—via ARRL Letter*



Lorraine S. Matthew, N4ZCF
MARS Call AAA9PR
E-mail: LoriMatt@aol.com

Earthquake! Immediately most of our minds jump to the state of California.

Army MARS planners look at the New Madrid Fault which parallels the Mississippi River. This will be the location and the scenario for a nationwide emergency exercise with the emphasis on the widespread disaster that would occur if this heartland area were to suffer an earthquake. In California, the earthquake centers and the centers of population are far enough apart that the impact and the people affected (which can number in the millions) are somewhat isolated from each other.

In the case of the New Madrid Fault cities, this isolation by distance does not exist and many, many millions of people could be affected. Much vital, heavy industry is located in this zone as well. Army MARS and its array of customers want to be ready if and when such a disaster occurs. With such exercises, all support mechanisms will be in place and ready to operate.

Again, looking at the West Coast, a most interesting document has been issued from the Office of Emergency Operations (EOC) in Salem, Oregon. It describes an official representation of the dangers associated with earthquakes, tsunamis (seismic sea waves), and volcanoes in Northern California, Oregon, Washington, and British Columbia in Canada. Notice the variety of concerns in this area. These states and the neighboring province in Canada lie in the worldwide zone surrounding the northern Pacific Ocean known as the Rim of Fire. The Rim of Fire is well known for its seismic activity. These states have reason to be concerned, having enjoyed a quiescent period of many years. In baseball jargon, any one of these localities may be "due."

The EOC document opens by identifying the Juan de Fuca Plate which lies off the west coast of the North American continent. In the area immediately off the Oregon coast this fault meets and is sliding under the North American Plate at the rate of 1" to 2" per year. Before you dismiss these figures as insignificant, imagine your house settling at that rate every year. In just six years, your house could be upended an entire foot!

Seismological research indicates that several large earthquakes, possibly with accompanying tsunamis, have occurred off the Oregon coast within the last 3500 years, the last one being approximately 300 years ago.

There is a significant probability that a major earthquake will again occur in Oregon within the foreseeable future.

A tsunami must also be considered. Ocean water is displaced by the sudden ground motion/shifting on the ocean floor generating a surge of large waves.

These waves are often not seen traveling along the surface of the water until they loom and crash on shore. If they result from a "local source earthquake," the waves have no time to lose their destructive force. No matter what the source, there is no warning available for a tsunami strike.

During 1993, Oregon had two major earthquakes ranging from 5.4 to 6.0 on the Richter scale. This may provide some immediate relief for massive movement for a short time or it may preclude more earthquakes to come. Since no one can be sure, Oregon EOC will be ready and Army MARS will be ready with it. There is already much effort toward cooperation between the two support mechanisms which can only serve to support the people of the region very well.

Barbra Dahl/AARØJN, a resident of Oregon, sent additional comments. In 1964 a deadly tsunami struck Crescent City, California. That wave was generated by the major earthquake centered in Anchorage, Alaska. With this one example, we see that these natural phenomena are by no means local in nature.

Ms. Dahl writes, "I... live between two very important volcanoes — Mt. Shasta in Northern California and Mt. McLaughlin in Southern Oregon.

"Additionally, the Cascade Range of Oregon and Washington includes at least 100 volcanoes that could present the same scenario that Mt. St. Helens did in the '80s....

"The exercise scenario (New Madrid Fault) that is being projected by Chief Army MARS Robert Sutton probably has the most significant damage impact in the CONUS and should be the scenario of the CONUS MARS exercise, but I continue to see major problems in the Pacific Northwest that include earthquakes, tsunamis, volcanic eruptions, and more."

The Gulf Coast and Atlantic Seaboard states have their problems with hurricanes with winds and floods, the Plains states have their storms, tornadoes, and floods, all states have many unexpected disastrous events occur. That is why Army MARS is here. That is why Army MARS has its primary mission as emergency support communications. That is why Army MARS is becoming increasingly interoperational with federal and civilian emergency support agencies. That is why Army MARS members work so hard to develop a top quality system of emergency support.

That is why Army MARS remains: Proud, Professional and Ready. WR

Young Amateurs

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Club Liaison,
Worldradio,
2120 28th St.,
Sacramento, CA 95858

ARIZONA

Arizona Repeater Association. P.O. Box 35758, Phoenix, AZ 85069-5758. Operates 20 VHF & UHF rptrs. in AZ. Meets 4th Thurs./monthly, 7:30 p.m., APS Bldg., 21st Ave. & W. Cheryl, Phoenix. Info: (602) 849-0851. 9/98

Cochise Amateur Radio Assn., (CARA). Meets 1st Mon./monthly, 7:30 p.m. at club facility on Moson Rd., Sierra Vista, AZ. K7RDG/R 146.76(-) rptr. PL162.2. 5/98

Old Pueblo Radio Club, (OPRC). P.O. Box 42601, Tucson, AZ 85733. Meets 2nd Wed./monthly, 7:15 p.m., YMCA Lighthouse Cntr., 2900 N. Columbus (So. of Ft. Lowell). 2/98

Tucson Repeater Assoc., P.O. Box 40371, Tucson, AZ 85717-0371. Meets 2nd Sat./monthly, 7:15 p.m., Dept. of Emergency Mgmt., 130 W. Congress. Net Thurs. 7:30 p.m. 146.82(-), 146.88(-), 147.08(+), 448.550(-) & 145.15 Packet. 3/98

CALIFORNIA

Amateur Radio Club of Anderson, (ARCA). Meets 2nd Thurs./monthly, 7:30 p.m. Amer. Legion Post #746, 1709 Bruce Dr., Anderson, CA. Net every Tue., 7:30 p.m. on 146.64. http://www.snowcrest.net/bgorski/index.html 4/98

Beach Cities Wireless Society. P.O. Box 4016, San Clemente, CA 92674. Meets 2nd Thurs./monthly, 7:30 p.m., Ole Hansen Beach Club, 105 W. Avenida Pico, San Clemente. Rptr. 146.025(+) PL 110.9. 7/98

Coachella Valley ARC. Box 11092, Palm Desert, CA 92255-1092. Meets 1st Wed./monthly, 7 p.m., Portola Com. Cntr., 45480 Portola, Palm Desert. Info: Bill Dews, (760) 346-8611. Net Thurs. 7 p.m. 146.025(+) PL 107.2. 5/98

Contra Costa Communications Club, Inc., WD6EZC/R. P.O. Box 20661, El Sobrante, CA 94820-0661. Meets 2nd Sun./monthly (except May & Dec.), 0630, Baker's Square Restaurant in Richmond, CA. Info: Ed Caine, KA6OFR, (707) 996-0962. 1/98

Downey Amateur Radio Club Inc., W6TOI. Meets 1st Thurs./monthly, 7:30 p.m., So. Middle Sch. cafetorium, 12500 S. Birchdale, Downey, CA. VHF net W6GNS rptr. 146.175(+) Thurs., 7:30 p.m. 5/98

Fresno Amateur Radio Club. Meets 2nd Fri./monthly, 7:30 p.m., Ernie Pyle School, 4140 N. Augusta, Fresno, CA. 146.94(-) 223.94(-). 11/97

Fullerton Radio Club, Inc., W6ULI. P.O. Box 545, Fullerton, CA 92632. Meets: 3rd Wed./monthly, 7:30 p.m., Sr. Citizens Ctr., 340 W. Commonwealth, Fullerton. Net ea. Tue., 8 p.m. 147.975(-). Info: Bob Hastings, K6PHE (714) 990-9203. 7/98

Garlic Valley Amateur Radio Club (GVARC). Meets last Sat./monthly, 8:30 a.m., Gavilan Restaurant near Monterey exit, hwy 101, Gilroy, CA. Info: Hal, AC6LK, (408) 779-7787. Net Tues., 7:30 p.m. Club rptr. K6THR, 147.825(-). 9/98

Livermore Amateur Radio Klub, (LARK). Meets 3rd Sat./monthly, 9:30 a.m., City Council Chamber, 3575 Pacific Ave., Livermore, CA. Net Mon. 1900 on 147.12(+). For info: LARK Secretary, P.O. Box 3190, Livermore, CA 94551-3190. (510) 846-6513. 1/98

Marin Amateur Radio Club (MARC). W6SG. Box 151231, San Rafael, CA 94915-1231. Meets 1st Fri./7:30 p.m., Kaiser Hosp., Bldg. 2, Terra Linda, CA. (except July & Dec.; contact Membership Chair., Pete Wolford, N6IYU, 924-1578). Sun. AM Club at Red Cross, San Rafael. 9/98

Motorcycling Amateur Radio Club. Meets 2nd Sat./monthly, 8 a.m., Lake View Cafe, 2099 E. Orangethorpe, Placentia, CA, at 91 Fwy/Lakeview. Info: Ray Davis, KD6FHN, (714) 551-2010 or (714) 551-1036. 2/98

Mount Diablo Amateur Radio Club. P.O. Box 23222, Pleasant Hill, CA 94523. Meets 3rd Fri./monthly, 8 p.m., Our Savior's Lutheran Church, 1035 Carol Ln., Lafayette, CA. Net Thurs. 7:30 p.m. on 147.06(+) PL 100Hz. Info: (510) 932-6125. 7/98

Sierra Foothills ARC. 1222 San Simeon Dr., Roseville, CA 95661-5365. Meets 2nd Fri./monthly, 7:30 p.m., Auburn Library (Beecher Rm.), 350 Nevada St. Thurs. nets 7:30 p.m. 145.430(-) PL 94.8, 7 p.m., Fri. 28.415. 3/98

South Bay ARC. P.O. Box 536, Torrance, CA 90508. Meets 3rd Thurs./monthly, 7:30 p.m., Torrance Memorial Hosp., 3330 Lomita Blvd., Torrance, CA. Talk-in on WB6MYD rpt. 244.38(-). Info: (310) 328-0817. 7/98

Southern California Six Meter Club. P.O. Box 10441, Fullerton, CA 92635. USB Net Tue., 7:30 p.m., 50.150. FM Rpt. Net Thurs., 7:30 p.m., 52.86/52.36 tx. FM Smplx, call freq. 50.300. Net Sun., 10 a.m. 50.40. 4/98

Southern Humbolt ARC, (SHARC). Meets 4th Tues./monthly, 7 p.m., Best Western Humboldt House Inn, Garberville, CA. Talk-in on 146.79(-). 5/98

Southern Sierra ARS. Meets 2nd Thurs./quarterly (Jan., Apr., Jul., Oct.), 7 p.m., Veteran's Hall, 125 East F St., Tehachapi, CA. Contact: Caroline, KD6KMN, (805) 822-5995. 147.06(-), 224.42(-), 145.090(S) Packet. 1/98

Stanislaus Amateur Radio Assoc., Inc. (SARA). P.O. Box 4601, Modesto, CA 95352. Meets 3rd Tues./monthly, 7:30 p.m., Stanislaus Co. Admin Bldg. 145.39(-) PL 136.5, 224.14, 440.225 PL 136.5. 3/98

This month ... The Southern Penninsula Amateur Radio Klub of Yorktown VA, has won an MFJ Antenna Analyzer to share with its members. The club's name was selected at random from our "Visit Your Local Radio Club" listing.

North Hills Radio Club. Meets 3rd Tue./monthly, 7:30 p.m., Carmichael Elks Lodge, 5631 Cypress, Carmichael, CA. Nets 8 p.m. Tue., Wed., Thur., 145.190(-) PL 162.2 and 224.400(-). Contact: Bob, AC6HF, (916) 966-3654. http://www.ns.net/~NHRC 3/98

Orange County Amateur Radio Club. Meets 3rd Fri./monthly, 7:30 p.m., Orange County Red Cross, 601 N. Golden Circle, Santa Ana, CA. 146.550. Contact Bob Buss, KD6BWH, (714) 534-2995. 2/98

Poinsettia ARC. Meets 1st Thurs./monthly, 7:30 p.m., First Christian Church, Telegraph Rd. & Teloma Dr., Ventura, CA. Info: Bill Klope, KB6LJN, (805) 642-4955. 4/98

River City A.R.C.S. Meets 1st Tues./monthly, 7 p.m., SMUD Bldg., Don Julio at Elkhorn, Sacramento, CA. License classes offered. For info contact Lyle, AA6DJ, (916) 483-3293. 9/98

Sacramento Amateur Radio Club. Meets 2nd Wed./monthly, 7 p.m. Sac. Blood Ctr., 32nd St. & Stockton Blvd., Sacramento, CA. Info net at noon on rptr. W6AK/R 146.91(-). Steve Cates, KC6TEV, (916) 391-7341 or Les Ballinger, WA6EQQ, (916) 393-4775. 1/98

Sacramento "Old Timers" Amateur Radio Society and Sacramento Valley Chapter #169 QCWA (Quarter Century Wireless Assn.). Meets 2nd Wed./monthly, 8 a.m., Lyon's Restaurant, 1000 Howe Ave. For info contact Paul Wolf, W6RLP (916) 331-1830. 12/97

Santa Clara County Amateur Radio Assoc., (SCCARA) W6UW & W6UU. P.O. Box 6, San Jose, CA 95103-0006. (408) 249-6909. Meets 2nd Mon./monthly, 7:30 p.m., United Way, 1922 The Alameda, San Jose. Net all other Mon., 7:30 p.m. W6UU/R 146.385(+), 442.425(+) PL 107.2. 5/98

Tri-County Amateur Radio Assoc. P.O. Box 142, Pomona, CA 91769. Meets: 2nd Mon./monthly, 7:30 p.m., Covenant United Methodist Church, corner of Towne Ave. & San Bernardino Rd. in Pomona, CA. 1/98

Trinity Country ARC. P.O. Box 2283, Weaverville, CA 96093. Meets 2nd Wed./monthly, County School Adm. Bldg. in Weaverville, 7:30 p.m., Rptrs: WA6BXN 146.73(-) PL 85.4, W6HOR 146.925(-) PL 85.4. 10/98

United Radio Amateur Club, K6AA. L.A. Maritime Museum, Berth 84, Foot of 6th St. San Pedro, CA 90731. Meets 3rd Fri./monthly (except Dec.), 7:00 p.m. Monitors 145.52 Simplex 10 a.m.—5 p.m. 7/98

Vaca Valley Radio Club. Meets 2nd Wed./monthly, 7:30 p.m. (Board mtg., 7 p.m.) Vaca Fire Dist. Stn., Vine St. in Vacaville, CA. Rptr. WD6BUS 145.47(-) PL 127.3. Mary Turner, (707) 451-2134. 5/98

Victor Valley Amateur Radio Club. P.O. Box 869, Victorville, CA 92392. Meets 2nd Tues./monthly, 7:00 p.m., Presidio Recreation Cntr., 11100 Apple Valley Rd., Apple Valley, CA. Talk-in 146.94(-), PL 91.5. Net Sun. 7 p.m. 146.94(-). 1/98

West Coast Amateur Radio Club, (WCARC). P.O. Box 2617, Costa Mesa, CA 92628. Meets 3rd Thurs./monthly, 7 p.m., Fountain Valley Sch. Dist. office, 17210 Oak St., Fountain Valley, CA. 145.440(-) PL 136.5. Info: Joe, KA6LPZ, (714) 963-4426. 10/97

Westside Amateur Radio Club. P.O. Box 11092, Marina del Rey, CA 90295. Meets 3rd Thurs./monthly, 7:30 p.m., Red Cross Bldg., 1450 11th St., Santa Monica, CA. Net every Tues., 8 p.m., 146.67(-). Voice mail: (310) 917-1100. 6/98

Willits Amateur Radio Society, (WARS). 1712A South Main St., Ste. 73, Willits, CA 95490. Meets 4th Mon./monthly, 7 p.m., Brooktrails Fire Dept. (northwest of Willits). Talk-in: 145.13(-), PL 103.5. 9/98

Yolo Amateur Radio Society. Meets 1st Tues./monthly, 7:30 p.m., Training Rm. of the Davis PD, 226 F St., Davis, CA. Contact Dave Nishikawa, KC6YFG, (916) 756-6375/Talk-in 144.430. 10/97

Yuba-Sutter Amateur Radio Club, (YSARC). P.O. Box 1169, Yuba City, CA 95992. Meets 2nd Tue./monthly, 7:30 p.m., Yuba City Police Bldg., 1545 Poole Blvd., Yuba City. 1/98

CONNECTICUT

Tri-City Amateur Radio Club. P.O. Box 686, Groton, CT 06340-0686. Meets 2nd Tue./monthly, 7 p.m., St. Lukes Lutheran Church of Gales Ferry on Rt. 12. Info: Bob Dargel, KA1BB, (860) 739-8016. 10/97

FLORIDA

Indian River ARC, Inc., (IRARC). 597 Capri Rd., Cocoa Beach, FL 32931-3011. Meets 1st Thurs./monthly, 7:30 p.m., Community Church of the Nazarene, 400 Crockett Blvd., Merritt Island, FL. 3/98

Saint Petersburg Amateur Radio Club. Meets 1st Fri./monthly, 7:30 p.m., Red Cross Bldg., 818 Fourth St. North, St. Petersburg, FL. Nightly net 6:30 p.m., 147.06(+). Rptrs. 147.06(+), 224.66(-), 444.475(+). Info: C. Wagner, KE4EYI, (813) 896-4274. 1/98

South Brevard Amateur Radio Club. P.O. Box 2205, Melbourne, FL 32902. Meets 1st Tue./monthly, 7 p.m., Public Library, 540 Fee Ave., Melbourne, FL. 6/98

Vero Beach ARC, W4OT. P.O. Box 2982, Vero Beach, FL 32961. Meets 2nd Thurs./monthly, 7:30 p.m., Emerg. Mgmt., Indian River County Adm. Bldg., 1840 25th St. Net Mon., 7:30 p.m. 146.64. 1/98

GEORGIA

Dalton Amateur Radio Club, Inc., (DARC). P.O. Box 143, Dalton, GA 30722-0143. Meets 4th Mon./monthly, 7:30 p.m., Magistrate Court Bldg., corner of Waugh St. & Thornton Ave., Dalton, GA. Info: Harold Jones, N4OTC, 706/673-2291. 3/98

HAWAII

Big Island Amateur Radio Club. P.O. Box 1938, Hilo, HI 96721-1938. Meets 2nd Tue./monthly, 7 p.m., Army Reserve Center, 470 W. Lanikaula St., Hilo. Talk-in on 146.88(-). Lunch, 11 a.m. Fridays, Pizza Hut, Puainako Twn. Ctr. 7/98

Emergency Amateur Radio Club, (EARC). P.O. Box 30315, Honolulu, HI 96820-0315. Meets 4th Thurs./monthly, 7 p.m., Lincoln Elem. Sch., 615 Auwaiolimu, Honolulu. Nets: nightly 7:30 p.m., 146.88 & 146.80. Rptrs: 146.76(-), 146.80(-), 146.88, 146.98(-), 146.94(-). Info: (808) 833-6944, WH6CZB. 10/97

Koolau Amateur Radio Club, (KARC). 45-145 Mikihilina St., Kaneohe, HI 96744. Meets 2nd Sat./monthly, 9:30 a.m., Hoomaluhia Pk., Kaneohe, HI. 4/98

ILLINOIS

Chicago FM Club Inc., (CFMC). P.O. Box 1532, Evanston, IL 60204. 146.76(-) PL 107.2/224.10/224.18/443.75 PL 114.8. Ham help line: (773) 262-6773. Info net Tues., 9 p.m. on 146.76(-). Meets 3rd Wed./monthly, 8 p.m. 7/98

Dupage Amateur Radio Club. (DARC). P.O. Box 71, Clarendon Hills, IL 60514. Meets 4th Mon./monthly, 7:30 p.m., Holy Trinity Church, SE corner of Cass & Richmond, Westmont, IL. Net Sun., 9 p.m. on 145.25. W9DUP repeaters 145.25(-) 107.2PL, 442.55(+) PL 114.8, 224.68(-). 2/98

Fox River Radio League. P.O. Box 673, Batavia, IL 60510-0673. Meets 2nd Tue./monthly, 7:30 p.m., Old Bank Bldg., 900 No. Lake St., lower level, Northgate Shopping Ctr. & Rt. 31, Aurora, IL. 7/98

Hamfesters Radio Club, W9AA. P.O. Box 42792, Evergreen Park, IL 60805. Meets 1st Fri./monthly, 8 p.m., Crestwood Civ. Ctr., 139th & Kostner, Crestwood, IL. Nets: Sun. (local) 0100 UTC, 28.410 MHz; Mon. 9 p.m. 146.43 S., Packet Mailbox 145.65 MHz. Info: (312) 974-3291. 1/98

Peoria Area Amateur Radio Club, (PAARC). P.O. Box 3508, Peoria, IL 61612-3508. Meets 2nd Fri./monthly, Red Cross Chapter House, 311 W. John Gwynn Jr. Ave., Peoria, IL. Voice mail: (309) 692-3378. Rptrs: 147.075(+) & 146.85(-). 6/98

The Starved Rock Radio Club, W9MKS. P.O. Box 198, Tabor St., Leonore, IL 61332. Meets 1st Mon./monthly, 7:30 p.m. Rptr. net 7 p.m. Wed./wkly., 147.12(+). 11/97

MAINE

Androscoggin Amateur Radio Club. Meets 1st Wed./monthly, 7 p.m., Auburn Police Station, 1 Minot Ave., Auburn, ME. Info: (207) 782-8699. 11/97

MASSACHUSETTS

Quannapowitt Radio Assoc., Inc. 6 Savin St., Burlington, MA 01803. Meets 3rd Fri./monthly, 8:00 p.m., at Lynnfield-Wakefield Methodist Church, Vernon St., Wakefield. Info: Jim Chamberlain, N1AKG, (617) 944-5098. 3/98

Wellesley Amateur Radio Society. Meets 3rd Thur./monthly, 7:30 p.m., Wellesley Police Station, Washington St., Rt. 16, Wellesley, MA. Talk-in 147.030(+). Info: G. Driscoll, NV1T, (617) 444-2686. 12/97

MICHIGAN

Adrian Amateur Radio Club, W8TQE. Box 26, Adrian, MI 49221. Meets 1st Fri./monthly, 7:30 p.m., Civil Air Patrol Bldg., Lenawee Co. Airport, Cadmus Rd., Adrian. ARES net Sun., 9 p.m. 145.37(-). Info: Brian Sarkisian, KG8CO, (517) 265-1537. 4/98

Edison Radio Amateurs Assoc. Meets 2nd Fri./monthly (Sept.-June), 7 p.m., Edison Western Wayne Div. HQ, 8001 Haggerty, Belleville, MI (So. of Ecorse Rd.). Net each Thurs., 8 p.m. on 145.33(-) and 442.80(+) rptrs. 4/98

Genesee County Radio Club, Inc. Meets 3rd Tues./monthly, 7:30 p.m., Genesee Area Skill Center, Torrey Rd., Flint, MI. (810) 634-6077. 3/98

MISSISSIPPI

Jackson Amateur Radio Club, Inc. Meets 3rd Thurs./monthly, 7 p.m., Am. Red Cross Bldg., Riverside Dr., Jackson, MS 39202. 10/97

NEVADA

Frontier Amateur Radio Society, (FARS). Meets: 2nd Sat./monthly, bkfst. mtg. 8 a.m., Country Inn, SE cor. W. Sunset, Valle Verde, Henderson NV. Club info: Jim Frye, NW7O, (702) 456-5396 or Bill Scarborough, WA6ASI, (702) 269-9551. 8/98

Wide Area Data Group, Inc. P.O. Box 3132, Sparks, NV 89432. Meets 1st Sat./monthly, 8:30 a.m., Bonanza Casino/Restaurant, 4720 N. Virginia, Reno. Info: (702) 356-8200. Call on 147.30(+) MHz. 5/98

Sierra Intermountain Emergency Radio Assoc., (SIERA). Meets 2nd Tues./monthly, 7:30 p.m., Carson Valley Museum & Cultural Cntr., 1477 Hwy 395 North, Gardnerville, NV. Contact: George Uebele, WW7E, (702) 265-4278, 147.330 MHz. 11/97

Sierra Nevada Amateur Radio Society (SNARS). P.O. Box 7727, Reno, NV 89510-7727. Meets 2nd Sat./monthly, 0800, The Continental Garden Restaurant, 1885 S. Virginia St. (at Plumb). 146.61(-) PL 123. Contact Swede Ohlson, (702) 852-2402. 1/98

NEW HAMPSHIRE

Great Bay Radio Association, WB1CAG. P.O. Box 911, Dover, NH 03820. (603) 749-2970/332-9107. Meets 2nd Mon./monthly, 7 p.m., Rochester Community Ctr. Talk-in: 147.57. 11/97

Port City Amateur Radio Club, (PCARC), W1WQM. P.O. Box 1587, Portsmouth, NH 03802. Meets 1st Wed./monthly (Sept.-June), The Edgewood Ctr., 928 So. St., Portsmouth. Rptr. 146.805(-) PL 127.3. 7/98

NEW JERSEY

10-70 Repeater Assn., 235 Van Emburgh Ave., Ridgewood, NJ 07450. Meets 1st Wed./monthly (except July & Aug.), 8 p.m., VFW, Valley Rd., Clifton, NJ. Rptrs. 146.70(-), 224.84(-), 444.15(+). 10/97

Bergen Amateur Radio Association, (BARA). P.O. Box 304, Hackensack, NJ 07601. Meets 1st Sun./monthly, New Milford Elks Lodge, Patrolman Ray Woods Dr., New Milford, NJ 07646. Nets: 28.350 Mon. 9 p.m., 146.79(-) 9 p.m. Wed. 6/98

South Jersey Radio Assoc., (SJRA), K2AA. Meets Jan.-Oct., 4th Wed./monthly, 7:30 p.m. (Nov.-Dec. 3rd Wed), Bloomfield Fire Hall in Pennsauken, NJ. Talk-in: 145.29(-) rptr. 8/98

NEW YORK

Amateur Radio Association of the Tonawandas, (ARATS). P.O. Box 430, No. Tonawanda, NY 14120. Meets 3rd Tues./monthly (except July & Aug.), 7:30 p.m., Sweeney Hose Co., 499 Zimmerman St., No. Tonawanda, NY. Talk-in: 146.955(-) rptr. W2PVL. 10/97

Genesee Radio Amateurs, (GRAM). N.Y.S. Civil Defense Ctr., State St., Batavia, NY 14020. Meets 3rd Fri./monthly, 7:30 p.m. 147.285(+) W2RCX. 1/98

Hall of Science Amateur Radio Club. P.O. Box 131, Jamaica, NY 11415. HOSARC, 2nd Tue./monthly, Hall of Science Bldg., 47-01 111 St., Flushing Meadow Park, 7:30 p.m. Info: Arnie, WB2YXB, (718) 343-0172. 2/98

Orleans County Amateur Radio Club, (WA2DQL). Meets at Emergency Management Office, West County House Rd., Albion, NY 14411, 2nd Mon./monthly, 7:30 p.m. 145.27(-) — WA2DQL. 12/97

PROS, Pioneer Radio Operators Society. Meets 1st Wed./monthly, 7 p.m., Sardinia Town Hall, Savage Rd., Sardinia, NY. Net 9 a.m. Thurs. 3853 kHz. 3/98

Suffolk County Radio Club, (SCRC). Meets 3rd Tues./monthly, 8 p.m., Bohemia Rec. Ctr., Ruzicka Way, Bohemia, NY. Talk-in: 145.21(-) rpt. Morten Eriksen, KA2UIU, (516) 929-6911. 4/98

Westchester Amateur Radio Assoc., (WARA). Meets 1st Wed./monthly, 7:30 p.m., Am. Red Cross Bldg., 106 N. Bway, White Plains, NY. Club nets: (10 Meters) 28.420 MHz Tues., 8 p.m. (2 Meters) 145.495(-) rptr., Thurs., 8 p.m. Info: Dan Grabel, N2FLR, (914) 723-8625. 4/98

Westchester Emergency Comm. Assoc., (WECA). Meets 2nd Mon./monthly, 7:30 p.m., Westchester County Ctr., White Plains, NY. Contact WB2VUK (914) 631-7424 or WECA INFO LINE (914) 741-6606 for details. Talk-in WB2ZII/R 147.06(+) PL 114.8/2A. 10/97

Yonkers Amateur Radio Club, (YARC). Meets 2nd Sun./monthly, 10 a.m., 1st Pct., Yonkers Police Station, E. Grassy Sprain Rd., Yonkers, NY. Info: P.O. Box 378, Centuck Sta., Yonkers, NY 10710. (914) 963-1021. 146.865(-), 440.150(+). 10/97

NORTH CAROLINA

Stanly County Amateur Radio Club. Stanfield, NC. Meets 4th Thurs./monthly, 7 p.m. Talk-in 146.985(-) for location. Wed. net 9 p.m. 146.985(-). Fri. tech net 9 p.m. 147.390(+). Phone: (704) 888-4815. 5/98

SOUTH CAROLINA

Sumter Amateur Radio Assoc., Inc. (SARA) P.O. Box 193, Sumter, SC 29151-0193. Meets 3rd Mon./monthly, 7 p.m. Central Carolina Tech. College, Rm. 102, 506 N. Guignard Dr. Contact: Dee, NØZTV,(803)499-6315. E-mail: deebrown@sumter.net. Talk-in 147.015. 9/98

OHIO

Ashtabula County ARC. Ken Stenback, AI8S (964-7316). County Justice Ctr., Jefferson, OH. Meets 3rd Tue./monthly, 7:30 p.m., County rptr., 146.715(-). 10/97

Clyde Amateur Radio Society (CARS). Meets 2nd Tue./monthly, 7 p.m., Municipal Bldg., Clyde, OH 43410. NF8E rptr. 145.35(-) and 442.625(+) MHz. Net Sun. 9 p.m. Info: E. Remaley, KA8CAS. 3/98

Greater Cincinnati Amateur Radio Assn., (GCARA). ARRL SCC, meets 4th Wed./monthly, 7:45 p.m., Brusman's Hall, 4813 Vine St., St. Bernard. Nets: Mon. 9 p.m. EST 147.15(+), Thurs. 9 p.m., 1.936 MHz. Info: WA8STX, (513) 772-7378 or KW8X 961-3250. 11/97

Toledo Mobile Radio Association. P.O. Box 273, Toledo, OH 43697; (419) 243-3836. Meets 2nd Wed./monthly, 7:30 p.m., Luke's Barn, Lucas County Rec. Ctr., 2901 Key St., Maumee, OH. 147.270(+) Net every Sun. 8:30 p.m. 1/98

Van Wert Amateur Radio Club, Inc. P.O. Box 602, 1220 Lincoln Hwy., Van Wert, OH 45891. Meets 1st & 3rd Sat./monthly, 8 p.m. Call-in: 146.85(-). 2/98

Western Reserve Radio Assoc. P.O. Box 81252, Cleveland, OH 44181-0252. Meets 2nd Wed./monthly, 7:30 p.m., Jenkins Communications Cntr., Main St., Olmsted Falls, OH. Info: B. Beckman, N8LXY, Pres., 146.73(-), 444.900(+) MHz. 7/98

OREGON

Central Oregon Coast ARC. P.O. Box 254, Florence, OR 97439. Meets 3rd Sat./monthly, & every Wed./weekly, 9 a.m. for brkfst. at Woody's Rest. Net Wed. 7 p.m., 146.80(-). Info: 997-2323 or 997-4074. 1/98

Central Oregon Radio Amateurs, (CORA). P.O. Box 723, Bend, OR 97709. Meets last Thurs./monthly, 7 p.m., Bend Sr. Ctr., 1036 NE 5th, Bend, OR. 147.06(+) MHz. Info: (541) 389-7194. 7/98

Keno Amateur Radio Club. P.O. Box 653, Keno, OR 97627. Meets 3rd Thurs./monthly, 7 p.m., Keno Fire Stn. Rptr. 147.32(+) W7UFM. Info: Tom Hamilton, WD6EAW, (503) 883-2736. 11/97

Umpqua Valley Amateur Radio Club, Inc. P.O. Box 925, Roseburg, OR 97470. Meets 3rd Thurs /monthly, 7:30 p.m., Douglas County Courthouse, Rm. 310, Roseburg, OR. Info: W5PII/R 146.90(-) or (541) 673-1310. 6/98

PENNSYLVANIA

Butler County Amateur Radio Assn. P.O. Box 1787, Butler, PA 16003-1787. Meets 1st Tues./monthly, 7:30 p.m., Boy Scout Cntr., 830 Morton Rd., Butler, PA. Call-in W3UDX/R 147.36(+). Net 10:10 p.m. nightly. 10/97

Mercer County Amateur Radio Club, W3LIF. P.O. Box 996, Sharon, PA 16146. Meets 4th Tue./monthly, 7:30 p.m., Shenango Valley Med. Ctr, Farrell, PA. Net, Thurs. 9 p.m. on 145.35(-) W3LIF, Digi. 145.01. 3/98

Mid-Atlantic ARC. Box 352, Villanova, PA 19085. Meets 3rd Thurs./monthly, 8:00 p.m., Radnor Mem. Libraray, Wayne, PA. Call Bob Haase, W3SA, (610) 293-1919. 147.06(+) WB3JOE PBBS 145.09. 4/98

Warminster Amateur Radio Club, K3DN. P.O. Box 113, Warminster, PA 18974. Meets 1st Thurs./monthly, 7:30 p.m., Benjamin Wilson Sr. Cntr., Warminster, PA. Net on 147.09(+), Wed. 8:30 p.m. and 28.450 Sun. 9 p.m. 5/98

TEXAS

Brownsville ARC (CHARRO). Meets 2nd Tue./monthly, 7:00 p.m., Confederate Air Force Hangar, Brownsville Airport in TX. Coffee mtg. Sat./weekly, 10 a.m., Days Inn, Hwy 83 & Price Rd. Talk-in on 147.040(+). 1/98

VIRGINIA

Southern Peninsula Amateur Radio Klub, W4QR (SPARK). Meets 1st Tue./monthly Salvation Army Community Bldg., Hampton, VA. Repeaters 146.73(-), 449.55(-). VE Exam Info: (804) 898-8031, W4RTZ. 2/98

Virginia Beach ARC. Meets 1st Thurs./monthly (except July), 7:30 p.m., St. Andrews United Methodist Church, Tucson & Princess Anne Rds., Virginia Beach, VA 23462. 2/98

WASHINGTON

The Mike & Key Amateur Radio Club. Meets 3rd Sat./monthly, 10 a.m., Salvation Army Renton HQ., 720 Tobin St., Renton, WA. Talk-in on 146.82(-) rptr. Doors open at 9:30 a.m. 5/98

WEST VIRGINIA

Jackson County Amateur Radio Club. Meets 1st Thurs./monthly, 7:30 p.m., United Nat'l Bank of Ripley. Net Mon. 9 p.m. on 146.67(-) WD8JNU/R. For info: D. Tennant, N8ZYB, Rt. 1, Box 188, Mt. Alto, WV 25264. 7/98

Tri-State Amateur Radio Assn. Meets 3rd Tues./monthly, 7 p.m.,The American Red Cross, 111 Veteran's Memorial Blvd., Huntington, WV. 5/98

WITH THE HANDI-HAMS

by Helen Boddy, WØPXE

My Amateur Radio activities began in 1953. In those days, stern-faced FCC Engineers gave the exams and you had to report to the local FCC office. I grabbed my portable typewriter, jumped in a cab with my trusty guide dog, and went down to the Loop in Chicago, where I passed the code and theory for the General Class license. I have been on the air more or less ever since that time.

The OM, also a ham, and I moved to Keokuk in 1974, and as soon as possible got the antennas up. A widow since 1986, I'm lucky enough to have found a gentleman to help with antennas, station set-up, etc. He and his family have become as dear as my own folks to me.

I have served as President of the OM International Sideband Society, which has nets on all bands. I check into the nets so I can keep up with the society's activities. I check into the afternoon session of NORTHCARS and the Midwest Country Cousins. I love running the Breakfast Club net. I like to ragchew on two meters with the locals.

My HF station is a Ten-Tec Corsair, feeding a TA-33 beam for 20 through 10 meters and double bazookas for 80 and 40 meters. I bought a 486 computer, a printer, and an Arkenstone Reader. Lots of hams have computers that talk, but I don't think too many of us have readers. This device scans print material and reads it from the screen. All my life I have wished for the ability to pick up letters, magazines or whatever and read them without having to wait for someone to read them for me. It is like magic.

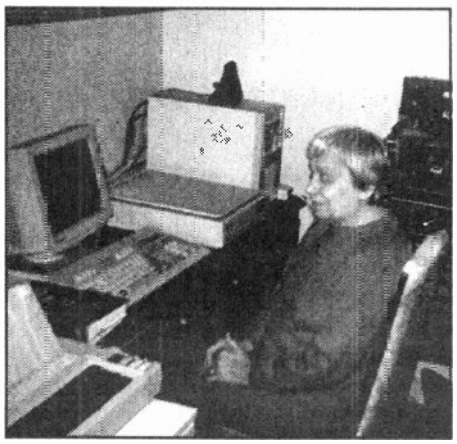
My computer programs are WordPerfect and Quicken Database. The database can keep track of all the net rosters. For those who have to know details, I use version 3.0 of Arkenstone's *Open Book Unbound*.

Rambo, my beautiful German Shepherd Pilot Guide Dog, has become a familiar check-in on all my nets. He likes to look out the window and comment on the neighbors' activities. K9"RFF" has a Breakfast Club certificate in his own name!

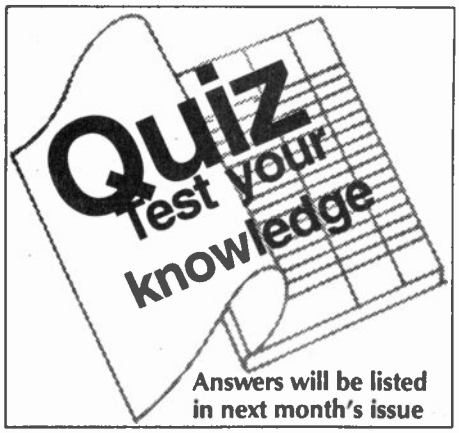
As we say on the nets, thank you for being there.

For more information about the Courage HANDI-HAM Sys-tem, contact them at Courage HANDI-HAM System, 3915 Golden Valley Rd., Golden Valley, MN 55422; 612/520-0515 handiham@mtn.org or http://www.mtn.org/handiham

To donate equipment to the program, contact Chris Peterson, KGØBP, at the above address, or at 612/520-0513. WR



Helen Boddy, WØPXE, is an active operator and HANDI-HAM!



The answers to last month's quiz questions are: 237. A; 238. D; 239. B; 240. A; 241. A; 242. C. 243. C; 244. A; 245. D; 246. B; 247. D; 248. B. 249. D; 250. C; 251. D; 252. B; 253. A; 254. D; 255. C; 256. A.

257. What is a constant-K filter?
A. A filter that uses Boltzmann's constant
B. A filter whose velocity factor is constant over a wide range of frequencies
C. A filter whose product of the series- and shunt-element impedances is a constant for all frequencies
D. A filter whose imput impedance varies widely over the design bandwidth

258. What is an advantage of a constant-k filter?
A. It has high attenuation for signals on frequencies far removed from the passband
B. It can match impedances over a wide range of frequencies
C. It uses elliptic functions
D. The ratio of the cutoff frequency to the trap frequency can be varied

259. What is an m-derived filter?
A. A filter whose input impedance varies widely over the design bandwidth
B. A filter whose product of the series- and shunt-element impedances is a constant for all frequencies
C. A filter whose schematic shape is the letter "M"
D. A filter that uses a trap to attenuate undesired fre7tuencies too near cutoff for a constant-k filter

260. What are the distinguishing features of a Butterworth filter?
A. A filter whose product of the series- and shunt-element impedances is a constant for all frequencies
B. It only requires capacitors
C. It has a maximally flat response over its passband
D.It requires only inductors

261.What are the distinguishing features of a Chebyshev filter?
A. It has a maximally flat response over its passband
B. It allows ripple in the passband
C. It only requires inductors
D. A filter whose product of the series- and shunt-element impedances is a constant for all frequencies

262. When would it be more desirable to use an m-derived filter over a constant-k filter?
A. When the response must be maximally flat at one frequency
B. When you need more attenuation at a certain frequency that is too close to the cut-off frequency for a constant-k filter
C. When the number of components must be minimized
D. When high power levels must be filtered

263. What condition must exist for a circuit to oscillate?
A. It must have a gain of less than 1
B. It must be neutralized
C. It must have positive feedback sufficient to overcome losses
D. It must have negative feedback sufficient to cancel the input

264. What are three major oscillator circuits often used in AmateurRadio equipment?
A. Taft, Pierce and negative feedback
B. Colpitts, Hartley and Taft
C. Taft, Hartley and Pierce
D. Colpitts, Hartley and Pierce

265. How is the positive feedback coupled to the Hartley oscillator?
A. Through a neutralizing capacitor
B. Through a capacitive divider
C. Through link coupling
D. Through a tapped coil

266. How is the positive feedback coupled to the input in a Colpitts oscillator?
A. Through a tapped coil
B. Through link coupling
C. Through a capacitive divider
D. Through a neutralizing capacitor

267. How is the positive feedback coupled to the input in a Pierce oscillator?
A. Through a tapped coil
B. Through link coupling
C. Through a capacitive divider
D. Through capacitive coupling

268. Which of the three major oscillator circuits used in Amateur Radio equipment utilizes a quartz crystal?
A. Negative feedback
B. Hartley
C. Colpitts
D. Pierce

269. What is the piezoelectric effect?
A. Mechanical vibration of a crystal by the application of a voltage
B. Mechanical deformation of a crystal by the application of a magnetic field
C. The generation of electrical energy by the application of light
D. Reversed conduction states when a P-N junction is exposed to light

270. What is the major advantage of a Pierce oscillator?
A. It is easy to neutralize
B. It doesn't require an LC tank circuit
C. It can be tuned over a wide range
D. It has a high output power

271. Which type of oscillator circuit is commonly used in a VFO?
A. Pierce
B. Colpitts
C. Hartley
D. Negative feedback

272. Why is the Colpitts oscillator circuit commonly used in a VFO?
A. The frequency is a linear function of the load impedance
B. It can be used with or without crystal lock-in
C. It is stable
D. It has high output power

273. What is meant by the term modulation?
A. The squelching of a signal until a critical signal-to-noise ratio is reached
B. Carrier rejection through phase nulling
C. A linear amplification mode
D. A mixing process whereby information is imposed upon a carrier

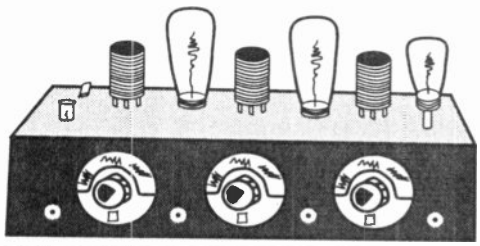
274. How is an F3E FM-phone emission produced?
A. With a balanced modulator on the audio amplifier
B. With a reactance modulator on the oscillator
C. With a reactance modulator on the final amplifier
D. With a balanced modulator on the oscillator

275. What is a reactance modulator?
A. A circuit that acts as a variable resistance or capacitance to produce FM signals
B. A circuit that acts as a variable resistance or capacitance to produce AM signals
C. A circuit that acts as a variable inductance or capacitance to produce FM signals
D. A circuit that acts as a variable inductance or capacitance to produce AM signals

276. What is a balanced modulator?
A. An FM modulator that produces a balanced deviation
B. A modulator that produces a double sideband, suppressed carrier signal
C. A modulator that produces a single sideband, suppressed carrier signal
D. A modulator that produces a full carrier signal

More questions next month!

OLD-TIME RADIO



Buddy Robins, W2KN

One Saturday morning in the spring of 1974, I put out a CQ, not knowing that it was going to change my life and that of my wife, Cherry. To my delighted surprise someone on the Isle of Man responded. There are not too many amateurs on this tiny island, maybe a hundred or so, not all of whom are active. Although I had made contact with the island before, it had been quite a while, and so I was very pleased to talk with someone there, and happily my new contact John Churchill, GD3MBC, was equally pleased to be talking to someone in the "Big Apple."

We chatted a bit about the weather scene (always a safe and popular topic) and I don't know what possessed me, but I said to my new friend, "John, what does one *do* on the Isle of Man, what do you do?"

"Oh," he replied, "I'm in the sweater business."

"No!" I declared without thinking, "that's what I do, what do you do?"

"I'm in the sweater business," he repeated. "We call them jumpers, not sweaters, but it's really the same thing."

Well, that was something! I had been an amateur for over forty years at that point, and it was the first time I had run across anyone whose occupation remotely resembled mine. It broke the ice, and we had a long chat, conditions were favorable, and we made a schedule (pronounced "shedule" by John) to hook up the following Saturday morning.

We had several enjoyable Saturday morning visits, and then one day the unexpected happened. My wife was sitting on the porch where my station was located, busily engaged with a jigsaw puzzle, a practice she generally indulged in to keep herself busy when I went on the air. John was talking about the circumstances that had been responsible for his moving himself, his wife and two children to the Isle of Man a few years before.

In relating the story, he mentioned that his father had been the British representative of the International Labor Organization, (the I.L.O.) and that he had been raised in Geneva where the I.L.O. was headquartered. Cherry's ears went up, she put down the piece of the puzzle she was fussing with, and said to me (but also to the microphone which could pick up her voice clearly), "Ask him where he went to school." It seems that my wife's family had moved to Switzerland from the States in the early thirties, and my wife, together with her sister and brother had all attended school in Geneva during the period between 1929 and 1939.

John heard Cherry, and we both heard him say "Oh, it was a tiny Swiss school, she never would have heard of it."

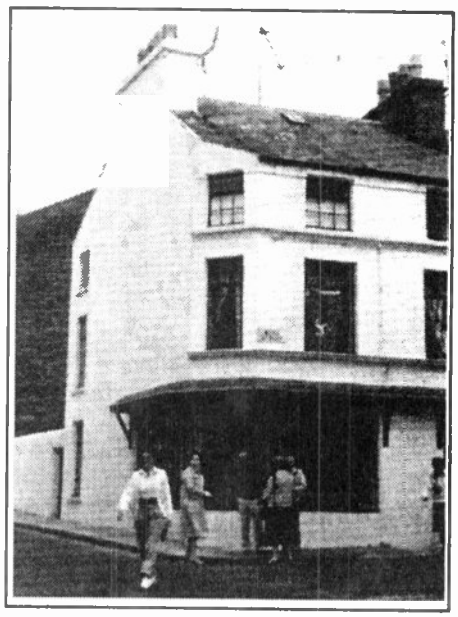
"What was its name, John?" my wife repeated.

"It was called Brechbuhl," said John. There was a pause.

"John, my sister, my brother and I all went there, in the nineteen thirties." This time there was a pause at the *other* end.

"I don't think I remember any Americans at the school, but perhaps we were in different classes." This proved to be the case, but the coincidence was so startling that it became the final point of motivation that impelled us to visit John and his family that summer.

We had asked him to find a hotel near where he lived when we phoned him from London that July. As it turned out, there wasn't a hotel anywhere near where the Churchills lived, and so we stayed with them. Thus began a friendship that has survived to this day, and which eventually led us to purchase a residence on the Island in 1981, much to the astonishment of our family and friends. **WR**



On Mona Street, Isle of Man

Quarter Century Wireless Association, Inc.

John G. Troster, W6ISQ

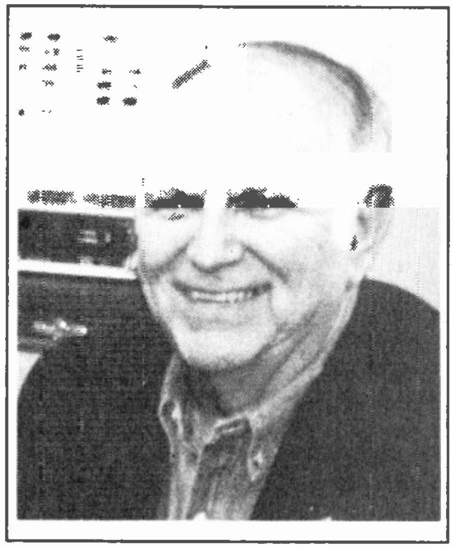
This October, in Geneva, IARU Secretariat Larry Price, W4RA, will take a place at the table at the World Radiocommunication Conference (WRC 97) of the International Telecommunications Union (ITU) biannual meeting. During the two years leading up to this meeting, the agenda topics have been hammered through multiple stages by each of several working groups, and now the world body will decide and act on these important issues. Larry, with other international delegates, is there to observe and report the proceedings which involve up to 2,000 people and 40 to 50 governments!

Preliminary to the meeting, Larry, with Paul Rinaldo, W4RI, IARU technical consultant, criss-crossed the Atlantic to attend, monitor and participate in first level meetings to discuss matters such as requests from other services to share or take over amateur bands. Larry turns out volumes of summaries of these meetings to point out particular amateur concerns to the some 140 IARU societies around the world. The amateur position on various issues are discussed and proposals adopted at these IARU Regional Conferences. Then, individual IARU societies are encouraged to lobby their governments to support the amateur position. One vote per country is the system, so it becomes very important that IARU societies in every country work steadily to seek a vote favorable to the amateur cause.

In Geneva, in preparation for the WRC, matters relative to amateurs wind their way from what is known as Working Party 8A, up through Study Group 8, thence though a CPM (Conference Preparatory Meeting) to sift the agenda, and finally to the full ITU Assembly. The track of a proposal is almost too labyrinthine for some of us older Hartley or 6L6 operators to follow.

Amateurs are not alone in seeking and holding a desired position. Powerful governmental and commercial services worldwide would like to separate amateurs from their frequencies, especially in the VHF/UHF region.

For example, Working Party 8A, also includes representatives of Land Mobile, Maritime, and others, against whom we must battle for frequencies. Working Party 8D includes Mobile Satellite Users and Little LEOs, our present nemesis. It is at this lower level that amateurs, via IARU delegates, principally W4RA, and W4RI, present the defense of our frequencies and submit requests for additional frequencies. Our delegates are guided by IARU decisions.



Larry Price, W4RA

Another IARU tactic to keep Amateur Radio strong is to place an amateur on the country delegation. The U.S. delegation will have technical expert Paul Rinaldo, W4RI. Japan has an amateur on its delegation. IARU hopes for other amateurs in many other delegations. These amateurs will be able to argue the amateur case within their own delegation.

If your favorite subject is not on the agenda, it won't be discussed by the WRC this time, but try again. And if you get the idea that Amateur Radio, with all its vital, earthshaking problems, finds matters such as North Korea's being on the DXCC list, or the sad state of the two meter band, not high on the priority list at the ITU, go to the head of the class. Amateur Radio is but a tiny part of the ITU which regulates and administers the radio spectrum. However, we do have an important niche in the spectrum and are recognized worldwide as being an important segment of the communications field; not without a ready defense of our territory, however.

Enter Larry Price, W4RA, an even-tempered, logical thinking gent, taking the helm. Looking at his background, one would think he has been preparing all the way for the responsibilities he now bears in IARU. Born and raised in Little Rock, Arkansas, he went from kindergarten through junior college right there. He doesn't remember exactly how he got interested in radio, but in high school, he found friends who were amateurs who Elmered him into the ham scene. One close friend, W5ONL, nudged him to get an Instructograph (remember those punched tape players?) and the red and black books, *How to Become a Radio Amateur*, along with the *ARRL License Manual*. In 1951, Larry took the Novice exam and got the call WN5TIA.

A year later he upgraded to Tech. Recall Novice licenses were only good for a year then. Gradually he upgraded and has held Extra Class for 25 years.

Larry went on the air with a rig built from directions in the 1951, *ARRL Handbook*. Little Rock didn't have a ham radio parts store so he ordered his parts from Chicago through the Allied catalog. He built the rig, procured a Hallicrafter S-38, strung out a wire, and went on 80-meter CW. He remembers that his best DX after several months of operating was W5STA in New Orleans!

Completing junior college, Larry transferred to the University of Arkansas to major in electrical engineering. He also had the opportunity to operate the university's ham station, W5YM. After graduation, he accepted a job with the Guided Missile Division of Bendix Aviation and moved to South Bend, Indiana, in the process getting a new call, K9MJA. After a few years with Bendix, he got one of the better-known letters from the President of the United States, "Greetings, Private Larry —" and off he marched to basic training at Fort Leonard Wood, MO. From there, he went to the Army Electronic Proving Grounds at Fort Huachuca, Arizona, retiring from duty as a Captain.

During his tenure at Bendix, Larry observed that the bosses and those getting ahead were the people who knew something about business and paper work. Not one to sit idly by, he went back to the University of Arkansas and enrolled in their MBA program. By way of self support, he worked part time at the Baldwin Piano Electronic Division. At completion of the MBA, his advisor suggested that since he had done so well academically that he continue and get a Ph.D., offering him a job as teaching instructor in the school as well. Ph.D. in hand in 1966, Larry accepted a post as Assistant Professor in the School of Business at Georgia Southern University in Statesville, Georgia. He received tenure and ultimately became department chairman there before he retired in 1991. Of course, his call was updated appropriately to W4DQD. He became active again using a Collins S-Line, then switched to a Drake Line, then finally moved into Kenwood.

In 1970, Larry decided he would like to put something back into Amateur Radio. He noted that the ARRL Vice Director of his Southeast Division was not going to run, so Larry entered the race. Now see if you can follow the twisted trail of the funny things that happened on the way to the polls. The then-Director, also noting the vacancy, decided he'd step down as Director and run for Vice Director! Larry lost the election to him. After one term, the erstwhile Director-now-Vice-Director decided not to run again for anything, so in 1972, Larry ran and was elected Vice Director. With us so far?

Now, the guy elected Director when Larry won Vice Director was Dale Streiter, W4DQS. However, shortly after winning the election, Dale resigned. Our man was right there, became Director and began a commute to Newington. In 1980, Larry was elected Second Vice President of ARRL, and after President Vic Clark died in 1984, Larry was elected ARRL President in a run-off election with (now recently deceased) Carl Smith, WØBWJ.

In 1991, Larry retired from both teaching and the League presidency. However, he hardly had time to take off both hats when he was immediately elected by the board of ARRL as Vice President for International Affairs. Thus he commenced his new duties with IARU. This important new post was of great interest to him because he liked to meet people and welcomed the challenge to learn a lot of new things.

To go back a bit —in graduate school Larry met a young lady, a psych major, named Barbara. Apparently she had him figured out as okay, and soon after graduation they were married. They had three children: Jane living in Indianapolis with a sportswriter husband and two children; Carol, KE4DGG, lives in Savanah with OM KD4YYG, and two children; and Steven, a bank officer in Savanah. Very sad to report, Barbara passed on in 1991.

Nowdays, you'll find Larry on 20 meters using a TS-850, Alpha amplifier, and TH7 tribander. He often checks in with the Region 2 net on 14.265 when not attending a conference in Geneva or Beijing or some other good DX location. Larry says he wants to keep on with his duties with the IARU as long as they remain a challenge. And a challenge they have been, insofar as he has had to hit the books again after many years, upgrading his electronic knowledge to keep up with the avalanche of electronic developments which challenge all of us in Amateur Radio.

Larry sees three big problems for Amateur Radio in the future:

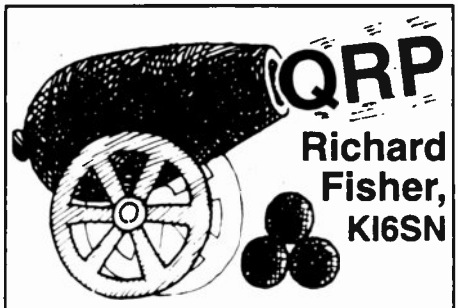
1. Threat to the amateur spectrum from many more potential users. Scientists are inventing things all the time and need space in the VHF/UHF region. Unfortunately, we are not using our space as intensively as we might, so other services claim they can make better use of those frequencies.

2. Band changes. Revision of Amateur Regulations by the ITU tentatively on the Agenda for WRC 99. The 7 MHz expansion worldwide, 6900-7200, will probably be put on the agenda for WRC 99. This band change has been endorsed by the European, Asian and North and South American ITU organizations. Still, it is a change. Amateurs will also ask for band expansion as well as additional bands. We'll have to wait and see. Also the issue of not having an international requirement for CW may come up in WRC 99 (for these items to get on the agenda in WRC 99, they must be placed on that agenda at this WRC '97 meeting). A present problem in WRC 97 for amateurs is the Wind Profile Radar requirements. The radar people want frequencies near 50, 400 and 11-122 MHz. These requirements could seriously disturb amateur operations nearby. Of course, IARU will work to try to reduce interference.

3. EESS (Earth Satellite Service) for environmental research. This service, partially supported by NASA, would be used to monitor pollution, ozone depletion, crop development, etc. This is a low orbit system which could cut into amateur operations. It has a powerful radar which the experts say, if pointed at you, could blank out your receiver for up to eight minutes. The public sees the EESS as a good thing, and the U.S. government supports it — so, radar will get frequencies. Whose? IARU can only try to minimize the use of these frequencies.

You can see the magnitude and importance of the IARU job Larry and his fellow amateur delegates, SP5FM and VK3XI, have done in Geneva. We must remember that it takes time for these international regulations to be revamped and implemented. Thus, whatever happens we'll probably retain the status quo for a few more years. Go ahead and put up that big beam!

There's no way of knowing what this WRC 97 will produce in the way of new regulations, but it's good to know that the IARU entrusts its fortunes to high-caliber thinkers such as official delegate Larry Price, who will be representing Amateur Radio at WRC 97 and beyond. QCWA is proud indeed to claim Larry Price, W4RA, as One Of Us, the Proud, the Many, the Elite, the Dedicated, the QCWA. Until the next one, 73 + 25 = 98. Jack, W6ISQ WR



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QRP TiCK talk

In a QRP homebrewing community forever obsessed with downsizing, Embedded Research's tiny TiCK-1 and TiCK-2 iambic keyer chips and kits are generating a lot of small talk.

It's easy to understand why. For their tiny size, price, versatility, power consumption, simplicity and ease of operation, you'd be hard pressed to find a better set of keyer packages anywhere.

Featuring a long menu of push-button and paddle activated options, the TiCKs do a lot of what the big boys do. But they do it at a fraction of the price and complexity. And with QRP transceivers getting smaller and smaller, it's only fitting that keyers follow suit. Embedded engineers/QRPers Gary Diana, N2JGU, and Brad Mitchell, WB8YGG, of Rochester, NY, have certainly filled the bill. The largest PC board in the TiCK series is just 1 x 1.2 inches.

The company offers the iambic chips in either streamlined TiCK-1, or souped-up TiCK-2 models. You can buy the chips by themselves or order partial or full kits with either DIP (hole-through) or SOIC (surface mount) printed circuit boards. For such a little project, you sure have a lot of options.

It wouldn't be fair to characterize the TiCK-1 as the series' no-frills model, because even with its abridged capabilities compared to the TiCK-2, the TiCK-1 does just about everything the casual CW operator would want. There is variable speed control from QRS to QRQ-plus, key-down tune function, selectable ON/OFF sidetone, paddle options for right-, or left-handed operators, straight key, and iambic modes A or B with 3:1 weighting.

The TiCK-2 has everything featured in the TiCK-1, plus a 20-25 character memory for storing short messages (such as a "CQ" and callsign) and toggling for memory input.

DIP versions of the chip are interchangeable. So the builder can modify a TiCK-1 to a TiCK-2 by simply plugging the new chip into a board-mounted socket. All of the other circuitry is identical.

TiCKs need just 3 to 5 volts DC to function, and when the circuit is "sleeping" — for example, while the other guy is pounding away on CW or you're out doing yard work — it draws only about 3 microamperes of current. That's great for leaving a battery connected to the circuit full-time. From practical experience, I've also found that it's a good idea to leave the TiCK powered because removing voltage causes the chip to forget the parameters you've set for it. This means every time power is re-applied to the keyer, you have to reset its keying speed, sidetone ON/OFF, paddle "dit" and "dah" selection and, in the TiCK-2's case, your stored message. That can be a pain. Leaving it connected to two or three AAA Walkman-style batteries permits you to "set it and forget it" until the power finally runs down — probably sometime in the next century.

A single push-button and your keyer paddle are used to tell the TiCK what parameters you'd like to use. The kit's comprehensive and well-written and illustrated manual walks the operator step-by-step through the menu of tone-acknowledged functions, beginning with a series of "dits" on power-up.

On the TiCK-1, when you're ready to roll, press the push-button and you'll hear "di-di-dit" — "S," for SPEED, indicating the TiCK is ready to change speed if you'd like it to. Press and hold the "dit" side of your keyer paddle and the TiCK sends a series of "dits" gradually decreasing in speed. Press the "dah" side and it increases. Easy.

Okay, now press and hold the push-button again and you'll hear "S" followed by "T" ("dah"). Release the button here and the TiCK-1 goes into keydown so you can TUNE your rig. Press the button again, or hit your keyer paddle and keydown stops.

Now press and hold the push-button and cycle from "S" to "T" and you'll come to "P" ("di-dah-dah-dit"), for PADDLE SELECT. At this point you can tell the TiCK which side of your paddle you'd like to produce "dits." Press the left paddle and your "dits" come from the left; press the right paddle and the "dits" come from the right.

Next on the menu is "A" ("di-dah"), for AUDIO SELECT. This turns the keyer's sidetone circuitry ON or OFF depending on whether you touch the "dit" or "dah" side of the paddle. The TiCKs can be built either to inject sidetone into your transceiver's audio circuit, or to produce sidetone with a small piezo audio transducer provided with each full kit.

After "A" comes "SK" ("di-di-di-dah-di-dah"), for STRAIGHT KEY. If you want to produce CW manually from your paddle, this function allows you to do so. Then comes "M" ("dah-dah") for MODE — selecting either iambic A or B modes. Finally is "K" ("dah-di-dah") returning the keyer to normal operation.

The TiCK-2 has a menu-within-a-menu to accommodate memory storage and other housekeeping functions not found in the TiCK-1. The main menu starts with "S" for speed adjustment, followed by "M" for MEMORY PLAY, which plays back any message you've input (such as "CQ" and your callsign); then "T" for TUNE; and then "A" for ADMINISTRATION. Release the push-button here for a moment, and you're ready to move into the second menu of options. Press it again, and you'll hear "I" ("di-dit") for INPUT MODE, indicating the TiCK-2 is ready to receive a 20-25 character message sent from your keyer paddle. Continuing through the sub-menu, you hear "P" for PADDLE SELECT, "A" for AUDIO SELECT, "SK" for STRAIGHT KEY, "M" for MODE, selecting iambic A or B, and "K" to return to normal operation.

If you've set your TiCK-2's parameters and want to skip the second menu, just keep holding down the

push-button at the "A" (ADMINISTRATION) prompt, and the keyer continues cycling through the main menu.

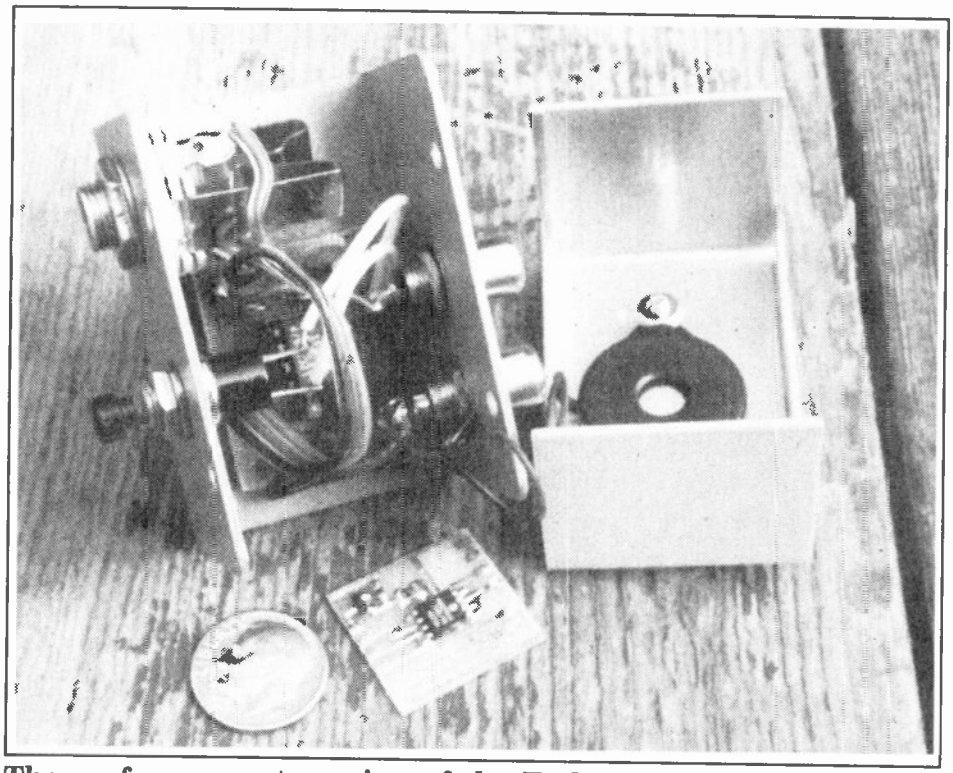
All of this may look and sound somewhat cumbersome or complicated, but it's really not. Once you've got the hang of the TiCK-1 or -2, it's great to operate, and a snap to program.

I built the full kit version of the TiCK-1 while the TiCK-2 was still in development. The kit included the TiCK-1 RISC-based microprocessor, a high quality PC board and a handful of board-mounted parts — some of which were not used in the KI6SN version, because I opted to use the piezo sidetone instead of transceiver audio injection. Other kit parts included the push-button, a piezo audio transducer and a 5-volt voltage regulator for dropping the voltage from an existing 12-volt line. The manual covers construction beautifully. The DIP versions of the kit are certainly within the capability of beginning builders.

The TiCK-1 went together quickly — less than a half hour — and worked great the first time power was applied. Since I didn't know exactly what to expect in performance, the keyer at first was haywired for a test run. From the start it was clear that this circuit was a keeper. Embedded designed the TiCKs with the thought that QRPers would install them in existing transceivers. Indeed, the DIP PC board is so small (1 x 1.2-inch) it will fit — with room to spare — in little radios such as Wilderness' new SST transceiver.

The dilemma here, however, was that I liked the TiCK keyer so much I was reluctant to dedicate it to any one transceiver. The option was to put it in a case of its own and use it with any rig at hand. An aluminum enclosure 2.25 inches long, 1.5 inches wide and 1.375 inches high was just the right size, and the TiCK-2 (DIP version) — upgraded from the TiCK-1 — now lives there happily ever after.

As amazing as the DIP versions of the TiCK are, the SOIC (surface mount) kit is even more remarkable. It's about two-thirds the size of the DIP package. The board's about the size of a postage stamp. I used a magnifying glass to position and delicately solder the TiCK-2 chip and other parts into place on the tiny PC board. The 8-pin surface mount chip is just two-tenths of a square inch in area. In the SOIC version there is also a capacitor, a resistor and a transistor to install — all surface mount components, and all teeny-weenie. I bet a good sneeze at the bench would scatter these unsoldered parts to where they'd never be found. This version is definitely not a kit for beginners or builders with visual problems.



The surface mount version of the Embedded Research TiCK-2 keyer is dwarfed by the conventional TiCK-2 housed in a small 2.25 x 1.5 x 1.375-inch enclosure.

On the air, the TiCK keyer motors along nicely with the rest of the traffic. The CW is crisp, clean and pleasantly predictable. The kind of behavior you like to get from a keyer.

If you're in the market, here's a price breakout:

TiCK-1 (hole-through DIP): chip and datasheet, $5; chip, manual and PC board, $10; complete kit, including chip, manual, PC board and parts, $16.

TiCK-2 (hole-through DIP): chip and datasheet, $10; chip, manual and PC board, $15; complete kit including chip, manual, PC board and parts, $21.

The full DIP kits include board mounted parts (TiCK chip, 5-volt regulator, 5 capacitors, 3 resistors, a PN2222 transistor, an 8-pin DIP socket) and off board parts (piezo audio transducer, .125-inch mono jack, .125-inch stereo jack, push-button switch).

TiCK-1 (surface mount SOIC): chip and datasheet, $5; chip, manual, PC board, $10; complete kit including chip, manual, PC board and parts, $16.

TiCK-2 (surface mount SOIC): chip, datasheet, $10; chip, manual, PC board, $15; complete kit including chip, manual, PC board, parts, $21.

The full surface mount SOIC TiCK kits include board mounted parts (TiCK chip, capacitor, resistor, transistor) and off board parts (piezo audio transducer, .125-inch mono jack, .125-inch stereo jack, push-button switch). With the exception of the TiCK SOIC chip, Embedded includes two of each surface mount components — just in case you sneeze.

TiCK components and kits are shipped postage paid within the continental U.S. New York state residents add 8 percent sales tax.

To order, or for more information, write: Embedded Research, P.O. Box 92492, Rochester, NY 14692. The company's site on the world wide web is: www.frontiernet/~embres/

Any surprise that there's TiCK talk, around the clock? WR

10-10 INTERNATIONAL News

Chuck Imsande, W6YLJ
10-10 19636

10-10 Convention huge success

The 10-10 Convention, held in Council Bluffs, Iowa, on July 10-12, 1997 was, by all standards, a huge success. There was a larger than expected attendance with 146 signing the log. The forums were outstanding, and the ladies' program kept the ladies busy touring all one day, with lunch at one of the local casinos. A "parking lot" net on Saturday afternoon had 102 checking in under the net control of Pat Hibbs, KH6OE, #28842.

The convention was dedicated to all 10-10 volunteer mangers and a certificate of appreciation was presented to all those in attendance, and mailed to those who could not attend. At the banquet, which had a large crowd of 121, the Presidents Award for 1997 went to L.B. Cebik, W4RNL, #41159, who has provided 10-10 with outstanding service in the development of the 10-10 web page. Col. Ed Redwine, K5ERJ, #11843, auctioned off many items that kept the banquet group bidding and bidding. A hand carving of Michael Jordan created the most interest and brought the highest bid. The beneficiary of the profits from the auction was the 10-10 scholarship fund. Tom Michaelson, NØMT, #55241 and Dick Gunn, K7EXO, #34348, won the two transceivers.

A plaque of appreciation was presented by President Tom Henderson, K4CIH, #33233, to Rex Hollford, KØNO, #20423, for his outstanding effort in organizing the convention and seeing that everything went smoothly. Rex and his group of 10-10ers from the Omaha and Council Bluffs area did an outstanding job. The 1997 10-10 convention will be long remembered and a hard one to beat!

Board of directors meeting

The 10-10 board of directors held their annual meeting in connection with the convention in Council Bluffs. All action items were successfully acted upon during the eight-hour meeting. A four-hour, pre-board meeting was held the night before the board meeting; most of the items scheduled for the board meeting were thoroughly discussed and many agreements were made resulting in an overall smoother formal board meeting.

Scholarship fund increased

The recent board of directors meeting took action to increase the 10-10 scholarship fund from three $1,000 scholarships per year, to four $1,000 scholarships per year, effective in 1998. The addition of another $1,000 scholarship by 10-10 was partly based on the fact that the general membership has, in the past, made contributions that have basically funded the scholarships. For this the board expressed gratitude to all who have contributed to the scholarship fund. The board feels very strongly about the 10-10 scholarship fund program and urges all to make a yearly contribution. If you would like to help the 10-10 scholarship fund, send your donation to Morrie Goldman, W6EHM, #4189, 10-10 scholarship manager, 21518 Marjorie Ave., Torrance, CA 90503-6814. There is no minimum amount, as every dollar will help support the 10-10 scholarship fund. Make your check payable to: 10-10 Scholarship Fund. You will receive a handsome certificate of appreciation.

New director

For personal reasons, Director Garry Cameron, VE7ACM, #30939, tendered his resignation at the recent board of directors meeting in Council Bluffs. The board wished Garry well, and thanked him for his effort during his short term as director.

Larry Berger, WA2SUH, #407, has been named by the president to fill the vacancy created by Garry's resignation. For many years, Larry was the 2nd call area manager. You can note by Larry's low 10-10 number, #407, that Larry has been around 10-10 for a long time and will bring a lot of 10-10 background to the board of directors.

Jack Miller, W9WYN, #6894, becomes SK

We mourn the passing of past director Jack Miller, W9WYN, #6894, in June 1997. Jack was elected to a two-year term as 10-10 director in the first general membership election, with his term beginning January 1, 1991. In the second general election, Jack was re-elected to a four-year term. Jack was an enthusiastic supporter of the 10-10 scholarship fund and was a recruiter for 10-10 at hamfests around the ninth call area. He was an active member of the City of Lights and Steel City Chapters. Jack was a great supporter of 10-10 and he will be missed.

New net control manager

Nat Green, 8P6SA, #45858, has found it necessary to retire from his volunteer position as net manager due to health reasons. Nat provided 10-10 with a good organized net for the last few years. We wish him well. Replacing Nat is Bill Marple, AA6ZW, #62075. Bill comes to the net with much experience in 10-10 net control, as he has been the Thursday net control for the 28.380 net for quite some time. Remember that 10-10 conducts a net every day, except Sunday, at 1800 Z. One net operates on 28.380 MHz and another net operates on 28.800 MHz. With band conditions improving, and openings occurring almost daily, have you checked your radio at 1800Z lately? Listen up, you may be surprised at what you might hear!

New QSO Party information brochure

A new 10-10 QSO Party information brochure is now available to all 10-10 members. This new 6-page brochure gives all of the information needed to compete in the five 10-10

QSO Parties each year. Rules for the regular phone and CW Parties and the special rules for the 10-10 Day Sprint Party are included. Also included is a sample of an acceptable log, a sample manual dupe sheet and a generic cover sheet required for submitting your log and score. A copy of this new brochure is available from: Don Ward, WØRTV #13962, 10-10 Contest Manager, 4514 Ferrer Drive, St. Louis, MO 63129.

Information about 10-10?

If you would like information about 10-10 and how you can become a member and receive your very own unique 10-10 number, send $1 plus 2 first class stamps and an address label for the return of your information package to: Mike Elliott, KF7ZQ, #54625, 10-10 Information Manager, 9832 Gurdon Court, Boise, ID 83704-4080. No SASE please, as the information package requires a 9 x 12 envelope. You will receive a copy of the 8-page prospective new member brochure which contains everything you will want to know about the 10-10 organization, a listing of all 10-10 chapters, their day, time and frequency of net operation and an application form. Also enclosed will be a copy of the latest issue of the *10-10 International News*, the 32 page 10-10 quarterly magazine.

If you have lost or forgotten your 10-10 number, send the same as above to Mike and you will get the information package along with your original 10-10 number.

If your membership in 10-10 has expired and you would like to renew your dues, send your dues ($10 per year) to: 10-10 International Net, Inc., 643 N. 98th Street #142, Omaha, NE 68114-2332. You will become an "ACTIVE" member again and receive all of the benefits of 10-10, including the quarterly *10-10 International News*. Remember, 10-10 numbers are issued for life and your originally issued number is always yours. **WR**

New ARRL VHF news program

Look for the possibility of another VHF-oriented Amateur Radio voice news bulletin service to premiere later this year, sponsored by the American Radio Relay League.

An ARRL survey was sent to a random sampling of affiliated clubs who operate repeaters or local nets, and to Bulletin Managers and Official Bulletin Stations, asking their help in deciding the best way to offer an expanded on-air news service that the League provides.

The survey appears to be a staff response resulting from Board action taken at an ARRL Executive Committee meeting in St Louis, Missouri, earlier this year, where the Directors gave marching orders to complete plans for what can probably be best described as a *Newsline*-like service. They were told to have a report ready for consideration for the Board of Directors when they meet this summer.

It's believed that a majority of the Leagues' Directors favor the creation of a VHF-oriented voice service in the hope of reaching the ears and minds of the many code-free Technician Class amateurs who do not listen to ARRL high-frequency bulletins or read current League news and information.

Many no-code Techs live on one repeater and do not even know that a U.S. national Amateur Radio Society even exists. The ARRL leadership appears to see a voice news service as one way to reach this large, yet isolated, group and get some of them to become more involved in the Amateur Radio community. Such a service would probably not replace the voice bulletins now aired on high frequency bands by the League's W1AW service. Rather, most observers feel it would be operated as an adjunct to it.

If you hear from anyone who has received a survey form, please encourage that person to respond to it promptly. If you have any thoughts on the matter yourself, you might want to drop your Director a note to let him or her know your ideas. This will give the ARRL leadership the best information from which to base a decision. *—via Newsline and several local ARRL Section notices*

propagation

Carl Luetzelschwab, K9LA
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Several years ago, an antenna article appeared in one of the ham magazines. The topic was horizontal loops, and patterns for 160M through 10M were shown for a specific horizontal loop configuration. All seemed okay with this until a follow-up article appeared several months later by another author pointing out that the patterns shown in the original article were wrong. This second fellow was correct, as the original article had made a mistake when modeling the loop. The mistake was not realizing that the antenna modeling program assumed a certain axis of symmetry for the loop, and the person modeling wasn't fully aware of this when inputting the antenna geometry.

Okay, I can hear you asking, "What does this have to do with propagation?" It doesn't have anything directly to do with propagation. But what it does relate to is our somewhat blind use of propagation prediction programs. Just like the antenna modeling example above, we can fall into traps with propagation software. What usually happens is a path isn't open when the prediction said it should be, or a path is actually open when the prediction said it shouldn't be. We wonder why and say the program isn't too good. So this month (and the next two months) I will go through the basic steps of a propagation prediction, and point out some of the areas requiring attention.

I feel strongly that this basic understanding of the process and assumptions is necessary. So bear with me — it will get a little detailed with some math. The analysis will be for a simple path, but the techniques apply for more difficult paths.

To start, let's assume I want to talk to someone in Los Angeles at 1400 UTC on 30M (10.1 MHz) in October. This is 9 a.m. local time here in Ft Wayne, and 7 a.m. local time in Los Angeles. Knowing the geographic coordinates (latitude and longitude) of both Ft Wayne and Los Angeles allows the calculation of the distance between the two end points — in this case it's 2960 km.

Now we need the ionospheric parameters foE (E region critical frequency), foF2 (F region critical frequency), and hmF2 (F region height) along the path to calculate Maximum Usable Frequencies (MUFs). The three parameters foE, foF2, and hmF2 over the chosen path come from the month and time of day, and the level of solar activity. Here's where we can make our first mistake — inputting the "wrong" level of solar activity.

The science of propagation prediction is based on a correlation between the state of the ionosphere and a smoothed sunspot number (SSN). There's a little problem right here — sunspots are only an indirect measurement of the energy that causes ionization (I'll comment further on this later). Many years of data from ionosondes (vertical-incident pulsed transmitters/receivers) all over the world have resulted in worldwide monthly median values for foE, foF2, and hmF2. These monthly median values have been found to best follow the smoothed sunspot number, which is the average of 12 months of monthly mean sunspot numbers centered about the desired month. So when we input the level of solar activity, it should be the smoothed sunspot number for the month in question — in this case, October 1997.

But we don't know this number yet — and we officially won't know it until the end of April, 1998 (remember the equation in the January 1997 column?). So we need to estimate it, or use someone else's estimate. Periodically the Amateur Radio magazines have predictions with SSNs into the future. Or you can go to the ngdc.noaa.gov web site mentioned in the February 1997 column to see what their prediction is. Or call up the Public Bulletin Board System (PBBS) in Boulder. Some propagation prediction programs even have a sunspot cycle built in, and this estimated number is automatically pulled for the month in question.

What you shouldn't use is the daily solar flux that is broadcast on WWV. This is contrary to what was stated in a propagation article several months ago in one of the monthly magazines. There are two basic reasons why this shouldn't be done.

First, the 10.7 cm solar flux is at a wavelength that is about one million times less energetic than the energy required to ionize any atmospheric atom or molecule. Thus 10.7 cm radiation contributes nothing to the formation of the ionosphere. But it's easy to measure, as the atmosphere is transparent at this wavelength.

Second, there is not a good correlation between daily solar flux and daily sunspot number. In fact, if you look at this in some detail, you'll see that for a given daily solar flux, the daily sunspot number could vary by a factor of over 2:1! Fortunately, there does appear to be a decent correlation between smoothed solar flux and smoothed sunspot number. This is why prediction programs allow entry of a solar flux — but it

hops	each hop	region	mode	angle	E region MUF	F region MUF
2	1480 km	E	2E	4 deg	11.5 MHz	16.5 MHz
3	987 km	E	3E	11 deg	8.7 MHz	14.0 MHz
1	2960 km	F	1F	4 deg	11.5 MHz	16.5 MHz
2	1480 km	F	2F	20 deg	6.4 MHz	11.5 MHz
3	987 km	F	3F	31 deg	4.6 MHz	9.0 MHz

Figure 1. Possible Modes and Corresponding MUFs

must be a smoothed 12-month value, just like with the sunspot number. In summary, whether you use solar flux or sunspot number for the level of solar activity, make sure it's the smoothed version. As I said earlier, that's what the science of propagation prediction is based upon.

Okay, now that we know what to enter for the level of solar activity (I used a smoothed sunspot number of 20), we can find the monthly median values of foE, foF2, and hmF2. These values basically come from either a large database or from PC-friendly equations. For this relatively short mid-latitude Ft. Wayne-to-Los Angeles path, all three parameters are fairly constant over the entire path: foE is 2.3 MHz, foF2 is 5.0 MHz, and hmF2 is 300 km. The height of the E region is usually assumed to be constant at 110 km.

With this information, we can go back to Table I in the March 1997 column and interpolate to identify which ionospheric modes fit the path distance, and calculate the MUFs (critical frequency times the M-factor) of each region. To keep things simple, I will restrict this to 3 hops or less. We see the 2960 km distance could be covered as indicated in Figure 1.

A close look at the data in Figure 1 should reveal a "problem." Note that both the 2E mode and the 1F mode are at an elevation angle of 4 degrees. How can that be? If a 4 degree elevation angle gets refracted by the E region, then it can't get to the F region — thus there cannot be a 1F mode. This means we need to test all the elevation angles to see if they do or do not get through the E region, and then if they do or do not get through the F region. This will potentially eliminate some modes — that is, they can't happen.

This is done by comparing the operating frequency (10.1 MHz) to the MUF of each region at the given elevation angle. Doing this results in the elimination of the 1F mode (because 4 degrees doesn't get through the E region), the 3E mode (because 11 degrees goes through the E region), and the 3F mode (because 31 degrees goes through both the E region and the F region). What's now left are only the 2E and 2F modes. That should ease the tedium of subsequent calculations.

Back in the old days before PCs came along, this is as far as it usually was taken. We would conclude 30M was indeed "open" from Ft Wayne to Los Angeles, as the MUFs of both modes (2E and 2F) are greater than our 10.1 MHz operating frequency. Not going any farther wasn't because we didn't know how to — it was that this was a manual process and continuing was even more tedious.

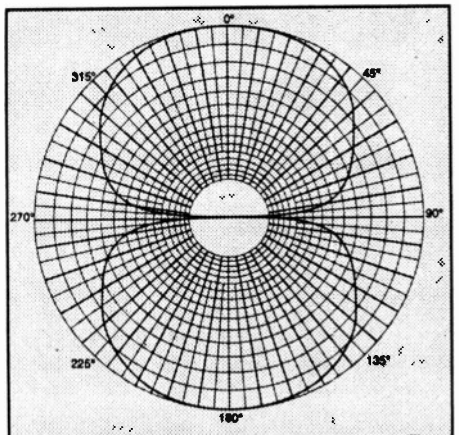
But with the computing power of today's PC, we can easily go farther, so that's what we'll do next month. WR

Be prepared

Get yourself prepared. 1998 is just around the corner. Send in your VE exam schedules now!

E-mail your story

Please send your contributions to: armond@delphi.com



AERIALS

Kurt N. Sterba

Let us examine an antenna that deserves better than its present fate of almost total neglect. The subject is the one-wavelength horizontal loop. It is situated parallel to the earth.

Always a good place to start reading when considering any type of antenna is, of course, your friend and mine, *The ARRL Antenna Book*. Let's see what they say about the 1 WL horizontal loop.

First, they call it a multiband antenna. Yes, it will work well on all harmonically related bands. And, I believe, on all other bands, when used with a tuner. The book also says it performs exceptionally well. So, why don't more hams put up this antenna that "performs exceptionally well?"

While the book does say: "fits on almost every amateur's lot," let us now examine that statement. In the text devoted to the loop, the stated dimensions given are 272 feet (for 80M), so if we create a rectangle with two 50 foot sides (=100 ft.) that leaves a remainder of 172 feet for a length on the remaining two sides of 86 feet each. Does that fit on your lot or not?

Here at Radio Ranch, where the skies are sunny all day, a discouraging word is never heard and antenna space is not a problem, we put up a loop using the above dimensions so as to simulate what would be met by those who wish to emulate.

Now we come to a rather challenging decision, one that you will have to make. I've read a rather serious book (*Near Vertical Incidence Skywave Communication* by Fiedler and Farmer) that claims that at the feedpoint of the one-wavelength loop there should be placed a 4:1 balun. That balun would obviously transform the higher impedance of the loop to thus match the lower impedance of the coaxial feed line. However, the ARRL book says: "Baluns or choke coils at the feed point are not to be used. They are unnecessary. Don't let anyone talk you into using them."

Alas, with all respect due the ARRL, I must disagree. First, every antenna site situation is different. What is true at one location will not be true at another place. The effect of the immediate environment on antennas is not discussed to the extent that it warrants. If you have a 1 WL horizontal loop running around your property, that 1931 Bentley in your garage will have a real effect on it.

In our case the 4:1 balun was necessary, and quite so as noted when results were measured without the 4:1 balun. Here, a Palomar Engineers balun was used. So, who is right? The ARRL book? The other book? Me? No, the answer is YOU! Whatever works best on your grounds is the right answer.

The starting point is the formula for 1 WL loops, which is 1005 divided by the Frequency in MHz, which results in the antenna length in feet. Example: 1005/3.8 MHz equals 264.45 feet, or 66.12 on a side if you erect a perfect square. If you can not manage four supports you may erect it as a triangle which would be 88.16 feet on a side. Expect to either trim wire or add wire in order to drop it into the exact resonant spot you wish, although you can be way off before the station on the other end can detect even the slightest difference.

Using one of the MFJ Antenna Analyzers, a sweep of the amateur bands was made and SWRs at various points were recorded. Do not expect the resonances in the various bands to maintain a perfect harmonic relationship.

There are some good points made in *The ARRL Antenna Book* about the 1 WL horizontal. It states that the loop receives less noise than verticals or dipoles. It also attempts to contradict the undeserved reputation of the antenna as being only a high-angle radiator and mentions that DX can be worked and is.

I think it was Doug DeMaw who did some research some time ago and showed that as this antenna was used on each successive higher frequency band that the angle of radiation kept lowering.

In our particular case, and let me emphasize that your readings could and probably will be different, the resonant point on 80 (as shown by the lowest SWR) was considerably below the bottom of the band. It seemed that a big trim job was in order. However, since the 40 and 20 spots dropped right in those bands we let it go and used a tuner to compensate on 80.

The tuner used was the Vectronics HFT 1500 Digital Peak Reading Antenna Tuner. The light bar peak reading meter is terrific! It makes tuning up a snap and is much quicker than looking at an analog meter. Also, should you (after many hours of contest operating and it's deep into the night), have the wrong antenna for the band you will be apprised of that unfortunate development immediately because only a very few of the light bars will be activated.

To test the 1 WL loop antenna it was put on the air in the IARU Radiosport contest which occurs mid-July each year. To truly see the potential of the antenna the amplifier was NOT used. The loop gave a very good account of itself and we were well pleased with its performance. South America, Europe, Asia and the Pacific were worked. Relative to cost it is truly a fine performer.

Mention should be made of some fine operators encountered in the contest. 9V1AG, N2PP, K9SD, K4FCC and the YL at VP5JM were particularly impressive.

Of course, if one didn't have the room for the basic 80M (and up) loop, one could be cut for 40M (about one-half the size of an 80M), and up.

As always, the admonition for all antennas (except a Beverage) applies: The higher the better. However, that does not mean that quite satisfactory results will not be obtained at moderate to low heights.

Now let's look briefly at a situation that might be the plight of some. Let's say your room to put up an 80M loop is restricted. One could make it somewhat shorter without incurring much loss at all. Three-quarters (.75) of the full-size antenna, I would think, wouldn't give much cause for concern. You may then find that the resistance has dropped to where the balun may not be neccessary. Possibly.

Let's take a look. Let's say that you have a 100 ft. run of good quality RG-8 as your feedline. At 4 MHz the matched loss is 0.4 dB. At an SWR of 7:1 the additional loss is less than 1dB. At 14 MHz (same cable) with an SWR of 7:1, the additional loss would be 1.5 dB which is on the threshold of hearing a difference on a single tone during a hearing test. Another answer in restrictive situations is to, for most of the feedline run, use open-wire (loss meaningless) and connect to a balun of proper ratio just prior to coax entering the shack.

Coming in a column soon will be a review of the worst antenna book ever written. You will be amused.

An amateur is ranting that my recent comments about mobile shootouts show how little I know about antennas. To explain, in some of these shootouts, added to whatever field strength is actually recorded, are some more numbers. They represent what could have resulted had there not been whatever SWR losses there were due to the mismatch at that particular antenna's feedpoint.

To me, radio is not golf or bowling, we don't issue handicaps worth so many points. What we measure is antenna systems — that means the whole kettle of fish starting right out of the transmitter's coax connector. I am interested in what is reality as it is, not "what might have been" if some amateur showing up weren't presenting some sloppy situation. It's like this: You will never get a QSL card from Tanzania for a contact that you should have made, but didn't (couldn't) because of your lost power.

"What could have been" is not the road up the ladder of the DXCC Honor Roll or any of life's other endeavors, either, and that includes rolling down the highway with a big signal on 75M.

There are some who have recently said, "Kurt is wrong," about statements made here regarding loads and reflected power. My critics have hit, sadly, a new low in the realm of scientific inquiry, for not a one of them said that they had first duplicated my experiment, recorded the results and then made their judgments from a solid foundation.

In a free country they can say anything they wish. They can say, "I believe he is wrong." They can even say, "I think he is wrong." But in good conscience they should not say, "I know he is wrong," until they have exactly replicated the test setup that was discussed and recorded the results.

When they do, I believe they will be embarrassed. And they will apologize.

I will now do something that my critics never do. And that is present something that is different, novel, and that you can actually use.

Should you be in the situation of having neighbors who suffer heart flutters at the very idea of you enjoying yourself by having an antenna that radiates a signal, this may be a solution.

Buy the biggest birdhouse you can find. Line the entire inside with copper screen. That will serve to add capacity to ground. Place the birdhouse on the tallest pole you think you can get away with. Connect a wire to the birdhouse's interior copper screen and run that wire down the pole to the bottom. Starting to look like a vertical antenna?

Add some radials, the length should be what you are able to do. The number of radials is more important than the length.

Yes, a short antenna will have a low resistance. Here's the answer. At the center insulator (between the vertical portion and the radials) use a "T" connector. Run two pieces of coax (equal in length), one to each of the two in-line ports. The vertical part of the "T" connects, with an adapter, to your center insulator.

The two pieces of coax (in parallel) will now have an impedance of 25 ohms. This will most likely present a better match to the low resistance of the shortened antenna. Run the two feedlines to your antenna tuner. With another "T" connector you run both pieces into the coaxial port of the tuner. Adjust the tuner controls for lowest SWR.

(Kurt, The Great, will return next month, much to the distress of many.) **WR**

License renewal time?

When renewing your license, be sure to include a photocopy of your present license, and completed Form 610 to: Federal Communications Commission,1270 Fairfield Road, Gettysburg, VA 17325.

Contest Corner

Don Durk, KA1DWX
info@autofold.com

Serious business!

October is a three-part month for se-rious contesters. First, you spend the beginning week or so straightening out all the little things that you've meant to do since the last BIG contest. Next, you dream the dream that runs are made of and then you design, install and fix up. Why? 'Cause it's the CQWW SSB!

So what's to do? Comfort-chairs, mike position, keyboard, monitor, footrests, java pot, et al. Hardware and software — interfacing, shielding, back-up, and an uninterrupted power supply! Neighbor control: Test for FM, cable, TV problems, install fixes and retest. Let your neighbors know you're working to help them and if you can't get the problems resolved then arrange an operating schedule with them that will maximize your runs to Europe, Asia, etc. — there's nothing worse than your neighbor at your door in the middle of a great run!

Map out the areas with the greatest density of DX Qs within a 2,000 to 5,000 mile radius, think about your antennas, the heights where you have them and do what you can do to put a better signal into those target areas! Got a yagi at 35 or 40 feet with several dB of gain? If you have the room, try a 2-el vertical fixed on those target areas. Or perhaps you're so close to the DXpeditions in the Caribbean that a multi-band dipole at 40 to 60 feet will crack the pile-ups easier than your 5 el at 75 feet!

Become a prop rider! During non-contest times, you can always tell who the prop riders are. They appear on the band a half an hour or so before predicted peaks, run for an hour or two during the peak and move along as the path fades. This is effective, but you have to find a frequency, since everyone else is doing the same!

Most importantly, get into the 'test and have fun for as long as you like! Whether you search and pounce, or run when the propagation is favorable, enjoy! If you are a contest club member, earn a few points for your buddies and if you don't belong to a contest group, consider joining one or starting one. In this era of specialization and technology, who knows? Your new "hand key contest club" may be a huge success!

Check out the CQ-P 4-5 Oct — the annual California bash! Or try your hand at the 10/12 FISTS CW Sprint — a casual, modest speed event, enjoyable for its pace! Have fun!

Late September contests

(see September ***Worldradio*** for details)

•SAC SSB Contest

27 September 15:00-28 September 18:00

(RS+number) LA9HW

•CQWW RTTY Contest

27 September 00:00 - 28 September 24:00 others send (RST+CQ Zone) KT1N.

•TN SSB/CW/FM/Digital QSO Party

28 September 18:00 - 29 September 01:00

RS(T) + counties (95) for D. Smith,1385 Old Clarksville Pike, Pleasant View, TN 37146-8098.

October contests

•EU SSB Sprint

4 October 15:00-18:59

(Both calls + number + name) no RS(T). QSY rule – if you initiate a Q via CQ or QRZ etc, you can work only 1 station on that fq and your next QSO or CQ, QRZ, etc., must be at least 2 kHz away. Single op only. Fqs. – 14.250; 7.050; 3.730. Score – ea Q = 1 pt. Total pts. No suggestion from sponsors about how US stns can work split. ***Congrats to last year's winner, LY1DS!***

Free EU Sprint contest software is available from DL2NBU and or IK4EWK. I suggest you send some $$ for postage and packaging, $5 seems apropos. TR by N6TR is easily adapted. Contact N6TR or I2UIY pcortese@mbox.vol.it

Logs in 15 days via mail to I2UIY or in ASCII to: eusprint@dl6rai.muc.de

•Iberoamericano SSB Contest

4 October 20:00- 5 October 20:00

(RS+number)

Q 1x/band 160-10. Score-pts (Latin American stns score 1 pt per Q; others 3 pts per Q w/Latin American stns, 1 pt w/other non-Latin American stns) x mults (for Latin American stns DXCC list; for non-Latin American stns use CE,CO,CP,CR,CT,CX,C3,C9, DU, EA, HC, HI, HK, HP, HR, H, KP4, LU, OA, PY, TG, TI, XE, XX9, YS, YV, ZP, 3C and DXCC dependencies. Total score is total pts from all bands x total mults from all bands. Single xmtr single op or multi op; Single op EC (EA novice); QRP =< 5 W. Logs to: Concourso Iberoamericano,c/o Concepcion Arenal 5, 08027,Barcelona, Spain.

•RSGB 21/28 MHz SSB Contest

5 October 07:00-19:00

(RS+number: UK stns send county) Q 1x/band. Wk UK only. Per band score: pts (3 per UK QSO) x (UK counties per band). Add 15 and 10 meter scores together for total. Restricted or open classes. Restricted class is max of 100W out and antenna must be a single element with height no greater than 15 meters. QRP is 10W max out. Classes are: UK Open; UK Restricted; UK QRP; Overseas Open; Overseas Restricted; Overseas QRP; Overseas receiving. Use of packet or spotting requires multi-op entry. Single op/multi op. Logs in 16 days, please! Std ASCII(no tabs or other control characters). Log file 1 logical line of data per Q w/ return character. G3UFY

•ARRL Int'l EME Contest

18 October 00:00 - 19 October 24:00

This is a 2-weekend contest w/ 15-16 November the second weekend. (Both calls+report+acknowledgment of calls and reports) Q 1x/band SSB/CW. 50 MHz and up. Score-pts (100/Q) x mults per band. Mults = U.S.+VE call areas+DXCC countries (not U.S./Canada). Single op multi band/single band// multi op-special rule-2 or more amateurs including neighboring amateurs within one call area but not greater than 50 km apart provided EME facilities for different bands on the different premises are present. Certs for even 1 Q via moonbounce. ARRL

•UCWC CW Contest

4 October 00:00-08:00

(RST+name+UCWC number for UCWC members) Q 1x per band 80-10.

Score-pts (1 pt for own continent, 3 for other continent) x mults (per band 1 for ea UCWC member QSO on10-20, 2 for each UCWC member on 40 and 80). Single op, multi band/multi op, single xmtr. UA4YR.

•F9AA Cup SSB/CW Contest

4 October 12:00-5 October 12:00

First 12 hrs for CW, next 12 hrs are for SSB. (RS(T)+number+club name if club stn) Q 1x per mode 160-10 meters. Score-pts (club stns–5 for same continent,10 for different continent; other stns–3 for different continent, 1 for same continent) x mults (DXCC countries + different clubs). Awards. Union des Radio Clubs, Coupe Fernand Raoult, 11 Rue de Bordeaux, F-94700 Maisons Alfort, France.

•VK/ZL SSB Contest

4 October 10:00 -5 October 10:00 (RS+number)

Q 1x/band. Wk VK/ZL/ Oceania, 80-10 meters. Okay for Oceania stns to QSO other Oceania stns but not within the same country. Score-pts (for each VK/ZL/Oceania QSO 10 pts on 80,5 pts for 40,1 pt for 20, 2 pts for 15 and 3 pts for 10) x mults (1 mult for each VK/ZL/ Oceania per band). Single op, all band/ single op, single band/multi op. Sep log/ band. Logs in 6 weeks. ASCII log okay, but summary sheet must be on paper. Certs.VK3APN.

•CA QSO SSB/CW Party

4 October 16:00 - 5 October 22:00 (RS(T)+number+state/VE prov or DXCC country for non CA or county for CA stns)

Q 1x per mode per band 160 - 2 meters. CW-1.805 and 40 kHz up; SSB-1.850; 3.850; 7.230; 14.250; 21.300, 28.450. Novice 10 kHz up. Try CW on half hour. 147.54 @20:00, 00:00 and 04:00. 160@05:00. 75/80@03:00 and 07:00. Okay to Q CA stns agn when they change counties. CA stns on county lines count as 1 Q but multiple counties. Score: pts (2 for phone, 3 for CW) x mults (number of CA counties{max 58}). 24 hr limit for single ops. Rest periods of at least 15 minutes noted in log. Band changes must be at least 10 minutes apart. Classes-single op; multi op, 1 tx; multi op, multi tx; CA county expedition; Mobile; Novice/Tech. Certs, trophies, T-shirts and maybe un vin! Ck sponsor for details! Logs w/ 200 or more Qs need dupe sheet. ASCII, CT-BIN w/ summary page to CQP-1997@kb.org or NCCC c/o Ken Anderson, K6PU, P.O. Box 853, Pine Grove, CA 95665.

•VK/ZL CW Contest

11 October 10:00 -12 October 10:00 (RST+number) See Oct 4 VK/ZL SSB Contest.

•PA SSB/CW/FM QSO Party

11 October 16:00-12 October 05:00 and 13:00-22:00 (number+county for PA stns or ARRL/RAC section/ DXCC country for others) Q 1x per mode 160-10 meters. CW-1810 (around 03:00) and 40 kHz up. SSB- 1.850; 3.980; 7.280; 14.280; 21.380 and 28.310. Score-pts (1 for SSB/FM; 1.5 for CW and 2 for 80 or 160 Qs) x mults (PA counties {max 67} also ARRL sections and DXCC countries for PA stns). Mobiles on county line are 1 QSO credit but good for 2 mults. Mobiles add 500 pts for ea county where they generate10 or more Qs. QRP stns multiply score by 2. Novice/Tech multiply score by 3. Plaques+certs. W3HDH

•YLRL Anniversary Party CW

Wednesday 8 October 14:00 -Friday 10 October 02:00

(RST+QSO number+state/ VE prov/ DXCC country) Q 1x/band. 3.5 - 28 MHz. Fqs: 55 kHz up, 21.135,28195. Pts (US+VE YLs 1pt w/same including KH6 and KL7, 2 pts w/ other; other YLs 1 pt same continent, 2 pts other continent) x mults (ARRL states/prov/DXCC countries) x 1.5 (CW 100W or less, or SSB 200W PEP out or less). Certs KC4IYD.

•EU Sprint CW Contest

11 October 15:00-18:59

See 4 October - EU Sprint SSB - Suggested fqs.-14.040; 7.025; 3.550. In '96 LY1DS wins both CW + SSB! Logs to OK2FD or eusprint@dl6rai.muc.de

•RSGB 21/28 MHz CW Contest

12 October 07:00 –19:00

(RST+number: UK stns send county) See 4 October-RSGB SSB

•FISTS CW Sprint

12 October 17:00-21:00

This is a casual CW test. (Name + state/VE province/DXCC country + Fists number for members or power for non-members) Q 1x per band 80 -10 meters. Fqs.-3.558; 7.058; 14.058; 21.058 and 28.058. Score-pts (5 for Q w/member; 2 for non-member) x mults (1 per state/prov/DXCC country. K8OUA.

•IL SSB/CW QSO Party

18 October 18:00 - 20 October 02:00 (RS(T)+state/VE province/DXCC country or county for Il stns) Q 1x/band and mode.1.8 - 28 MHz. Fqs.-CW-3.550, 7.050,14.050 and 30 up for Novice/Tech/ SSB-3.890, 7.290,14.290. Il stns may Q other Il stns for Q and mult credit. /M may be worked in each county/mode. Score: pts (1/SSB, 2/CW) x mults (total counties{max 102}, not per band. For Il stns- states+cnties+VE prov+DXCC countries (max 5)). > 100 Qs need dupe sheet.Certs. Check rules for bonuses. SASE for results. RAMS, 7079 West Ave. Hanover Park,IL 60103

•JARTS WW RTTY Contest

18 October 00:00 - 19 October 24:00

(RST+age if you choose) RTTY, Baudot only. Stns may use 00; multis may use 99. 3.5 -21 MHz. JA RTTY segments: 3.520-3.525; 7.025 -7.040; 14.070-14.112; 21.070-21.125; 28.070-28.150. Score-pts (2/same continent; 3/ diff. cont.) x mults (JA/VK/W/VE call areas + DXCC countries per band). Okay to count your own call area as mult! Single op all band/ multi op multi band. JH1BIH.

•Work All Germany (SSB/CW) Contest

18 October 15:00 -19 October 15:00

(RS(T)+number or DOK for German stns)Q 1x/mode per band. Non-German stns Q German stns. German stns Q German and non-German stns. 3.5 - 28 MHz. Score: pts (non-German 3/QSO; German -1 pt/German; 3 pts/EU; 5 pts/ DX) x mults- sum of per band mults. One mult per band not per mode. (German – DXCC/WAE country list; Non-German – German districts/ band = the first letter of the DOK exchange. Maximum of 26 per band). WAE Countries: C3, CT1, CU, DL, EA, EA6, EI, ER, ES, EU, F, G, GD, GI, GJ, GM, GMSHET, GU, GW, HA, HBØ, HV, I, IS, IT, JWBEAR, JWSPITZ, JX, LA, LX, LY, LZ, O E, OH, OHØ, OJØ, OK, OM, ON, OY, OZ, PA, R1/FJL, R1/MVI, RA, RA2, S5, SM, SP, SV, SV5 RHODES, SV9 CRETE, SV MT. ATHOS, T7, T9, TA1,

TF, TK, UR, YL, YO, YU, Z3, ZA, ZB2, 1AØ, 3A, 4U GENEVA, 4U VIENNA, 9A and 9H. ***'96 winners, congrats to: K3ZO, AA4EL, DL2MEH(CW), DL3OI (SSB); DL3KVR(QRP).*** Multi op 1 tx; single op CW all bands; single op CW+SSB all bands; single op QRP CW+SSB all bands. DL1DTL.

•QRP ARCI CW Contest

11 October 12:00 - 12 October 24:00

(RST+st/prov/DXCC country+ARCI number or power out) Q 1x/band. 1.8 - 50 MHz. 3.560, 3.710, 7.040, 7.110, 14.060,21.060,21.110,28.060, 28.110, 50.060. Max. op time 24 hrs. All band pts (5 pts/ARCI member; 2 pts non member, same continent; 4 pts non member, diff. continent) x all band mults (states/provs/DXCC countries) x pwr mult (>5W out x 1; <5W out x 7; <1W out x 10; <250mW out x15). Single band; all band; low band (160-40); high band (20-6). SASE for results. N6GA

•Asia-Pacific CW Sprint

18 October 12:30-14:30

(RST+number) Q 1x per band, 20 or 40 meters. 150W power max. Score (1 pt per Q) x mults (Prefixes per WPX rules–once only not per band). Possibles: 1S/9M0; 9M2; 9M6/8; 9V; BV; BV9-Pratas; BY; BS-Scarborough; C2; DU; FK8; FW; H4; HL; HS; JA; JD1/Ogasawara; JD1/Marcus; KC6-Belau; KH2; KH9; KHØ; P29; T2; T3Ø; T33; UAØ; V6/KC6; V7; V85; VK1-9 (Except VK9X+VK9Y); VS6; XU; XV/3W, XX9; YB; YJ; ZL (Except Chatham + Kermadec). Only single op, 1 radio class. QSY rule- called stn must QSY at least 1 kHz after an exchange. '96 winner–congrats to W6YA! T-shirts! ASCII ok. JAs to Tack Kumagai, PO Box 22,Mitaka,Tokyo 181, Japan. Non JAs to James Brooks, 26 Jalan Asas, Singapore 678787

•YLRL Anniversary Party SSB

Wednesday 22 October14:00-Friday 24 October 02:00

(RST+QSO number+state/ VE prov/ DXCC country) (See YLRL CW Party 8 Oct)

•CQ WW SSB – THE BIG ONE!!!

25 October 00:00 - 26 October 24:00

(RS +CQ Zone) Q 1x/ band. 1.8- 28 MHz. (Not WARC bands).You must sign portable if your call sign indicates a different zone or country than actual. Single ops need 12 hrs or more for awards; multis need 24. Ten minute rule and antenna details–CK RULES! Score–pts (diff continent 3 pts; own country 0 pts but ok for mult; NA other NA countries 2 pts; non NA stns – same continent but different country 1 pt) x mults (ea CQ Zone+ea DXCC country/ WAE country per band) /mm=zone mult only. Single op all band or single band. A1-single op high – no DX alerting assistance. A2-single op low – not >100W out. A3-single op QRP – not >5W out. A4-single op assisted. Multi op – all band only. B1-multi op 1 tx – 1 tx on 1 band during any 10-minute period, except 1 and only 1 other band may be used during any 10-minute rule if and only if the station worked is a new mult. B2- multi xmtr-1 signal and running station per band. Team: any 5 ops in the single op category. You may be on only 1 team per mode. You may be on entirely different SSB/CW teams. Competing on a team does not prevent you from submitting your score for a club. A list of the teams members must be received by CQ prior to the contests start. FAX to CQ, Att: Team Contest, (516) 681-2926. Club- at least 3 logs and club officer must report list of participants and scores. For awards single op must have minimum of 12 hours on; multi must have minimum of 24. Trophies, plaques and certs. Ck sheet for each band w/ 200+ Qs. Penalty for dupes or broken calls- up to 3%, 3 Qs removed for each error; for > 3% possible disqualification. Disks-IBM, MS-DOS compatible. Format CT.Bin for example-HSØAC.BIN or N6TR.DAT or your .DBF files.CQ.

November contests

11/1 Weekend
- •ARRL CW SS
- •HA QRP CW Contest 11/1-7
- •Ukrainian DX SSB/CW Contest
- •Collegiate CW Championship
- •IPA Radio Club SSB/CW Contest
- •DARC Corona Digital Contest
- •HSC CW Contest

11/8 Weekend
- •JA Int'l SSB Contest
- •WAE RTTY Contest
- •ALARA SSB/CW Contest
- •OK/OM SSB/CW Contest
- •DARC 10 Meter SSB/CW Contest

11/15 Weekend
- •ARRL SSB SS
- •ARRL Int'l EME Part 2
- •IARU Reg 1 160 Meter CW Contest
- •Collegiate SSB Championship
- •RSGB 1.8 MHz CW Contest
- •AGCW DL Homebrew & Old Time equipment CW Contest

11/29 Weekend
- •CQWW CW DX Contest

December contests

12/6 Weekend
- •ARRL CW 160 Contest
- •FAIRS HF DX Digital Data Contest
- •EA CW DX Contest
- •TOPS CW 80 meter Contest
- •QRP ARCI Holiday Homebrew CW Sprint

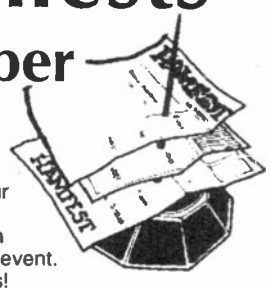
12/13 Weekend
- •ARRL SSB/CW10 meter Contest
- •TARA RTTY Sprint

12/20 Weekend
- •Croatian CW Contest
- •Int'l Naval SSB/CW Contest
- •12th Internet CW Contest

12/27 Weekend
- •Stew Perry 160 CW Contest
- •Original QRP CW Contest
- •RAC Canada SSB/CW Contest WR

Hamfests

October



Do you have a hamfest coming up? Send your information to our 28th St. office at least 2 months in advance of your event. We'll send prizes!

• ARKANSAS •

The **NWAARC Hamfest '97** will be held 3-4 Oct. in Springdale, AR, at the Jones Center for Families, corner of Hwy 265 & E. Emma Ave. (north of airport). Friday 7-9 p.m., Saturday 8 a.m.- 2 p.m. Setup both days. Vendors, traders, refreshments, forums, prizes, VE Exams (pre-register). Admission, $5, tables $6, tailgate $4, parking free. Talk-in 146.70 (–) or 146.76 (–). Reservations or info: Northwest Arkansas Amateur Radio Club, P.O. Box 24, Farmington, AR 72730, or Bryan Spain, 501/789-2690.

• CALIFORNIA •

Pacificon '97 will be held 17-19 October at the Concord Hilton in Concord, CA. The Antenna Seminar will be on Friday the 17th with a separate admission charge of $10. The vendor areas will not be open on Friday, but will be open Saturday and Sunday. Swap meet on the 18th and 19th. Forums in a wide variety of subjects by excellent speakers every hour will be featured Saturday and Sunday . Admission $3 in advance and $5 at the door. Pacificon Hotline, 510/932-6125 or e-mail: PACIFICON @designlink.com

• FLORIDA •

The **Bahia Shrine Amateur Radio Unit** is holding its 4th Annual Hamfest and Computer Show at the Bahia Shrine Auditorium, 2300 Pembrook Drive, Orlando (Maitland), FL 32810 on Saturday, 4 October (8 a.m.-4 p.m.) and Sunday, 5 October (9 a.m.-3 p.m.). Advance set-up is on Friday, 3 Oct. (3 -7 p.m.). A free area is reserved for tail-gaters. Plenty of free parking and lots of spaces for self-contained RVs. Advance admission is $4.00, at the door $5.00. Tables for the 2 days are $10.00. Contact Gerry, K4LVZ at 3311 Ellwood Ct., Winter Park, FL 32792, or 407/679-4244 for info and/or advance registration.

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The **Egypt Temple ARA** will hold a hamfest on 11 October at the Unit Building located at 4050 Dana Shores Dr., Tampa, FL 33622. There will be 108 tables for sale at $10 each. Each table will have two chairs. Admission tickets will be required by all except for children under 10 years of age. Electricity will be available (vendor must supply own cord). Table reservations and tickets can be obtained from J.F. Strom, K9BSL, 813/822-9107, 233 34th Ave. North, St. Petersburg, FL 33704-2241. Talk-in on 146.94(-). Food and drink will be sold by Egypt Temple members, no others will be allowed.

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The **ARC, Bradford Area** will hold their annual hamfest and computer show 17 October 1 to 7 p.m. and 18 October 8 a.m. to 3 p.m. at the Bradford County Fairgrounds north of Starke. Refreshments available. Admission for families is $4, tailgaters $4+ticket, tables are $5+ticket. VE testing planned, ph Warren Croke, NW4C,352/378-0935. Other information, contact Dan Phillips, K4RVD, 8214 Carl Brook Rd., Keystone Hts., FL 32656; 352/475-2695. Talk-in 145.15(-), 146.82(-), or 146.52(S).

• ILLINOIS •

The **Chicago ARC** will hold a hamfest (rain or shine) on 5 October from 8 a.m. to 3 p.m. (setup 6 a.m.) in Oakbrook Terrace. Entrance at Park View Dr. north from Cermak Rd. (22nd St.) one block west of Route 83. Paved parking,selling spaces, and tailgate space. Talk-in on 147.255(+) and 444.825(+). Admission $4/advance, $5/door. For information, call George at 312/545-3622, Dean at 708/331-7764, or Cora at 312/486-6823 or write CARC, 5631 W. Irving Park Rd., Chicago, IL 60634.

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The **Centralia Wireless Association** will hold a hamfest on 19 October from 8 a.m. (6 a.m. setup) at the Salem Community Activity Center, East Oglesby Street in Salem. Flea market tables are available on a reserved basis. For table space and reservations, contact Daisy King, AA9EK, at 618/532-6606. Prizes will be given away throughout the day. Admission is $2, or 3 for $5 in advance or at the door. Need not be present to win drawings. Mail ticket orders with SASE to Centralia Wireless Association, Inc., Hamfest Tickets, P.O. Box 1166, Centralia, IL 62801.

• INDIANA •

The North Central Indiana Hamfest, sponsored by the **Cass Co.** and the **Miami Co. ARCs** will be 4 October at the Miami County Fairgrounds, 8 a.m.- 1 p.m. A large vendor display area inside, and free tailgate sales outside (with ticket purchase) will be featured. There are acres of FREE PARKING! Talk-in 147.18(+) and 147.345(+). Tickets are $4.00 and 8' tables are $5.00 each. Viable radio clubs may qualify for FREE table space. For information, contact the North Central Indiana Hamfest, c/o Cass Co. ARC, P.O. Box 1092, Logansport, IN 46947; e-mail ccarc@netusal.net

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The **Huntington County ARS, Inc.** is sponsoring its 9th annual hamfest, 5 October from 8 a.m. to 1 p.m. (vendor setup 6 a.m.) at the Police Athletic League Club. Features include an indoor flea market, free parking, handicapped accessibility, and VE testing. Talk-in on 146.685 and 443.975. Admission is $4. Tables are $5 (8'), first-come, first-served. Contact Ray Tackett, P.O. Box 284, Huntington, IN 46750; 219/786-0057. Talk-in on 146.685(-), and 443.975(+).

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The **Boone County** and **Clinton County ARCs** are sponsoring a hamfest 25 October from 8 a.m. to ???? at the Boone County 4-H Fairgrounds, in the warm and dry Community Bldg. Features include dealers, flea market, free parking, free tailgating, great food available. Admission is $3. Vendor tables, $5. Talk-in on 147.105(+). Contact Duane Brant, N9RJG, or 317/466-2292, Voice Mail or 317/545-6536, FAX.

• IOWA •

The **Tikva Tracers ARC** will hold a hamfest on 26 October from 8 a.m.

(setup Sat. 6-9 p.m. and Sun 6 a.m.) at the Iowa State Fairgrounds in the 4-H building in Des Moines. Features include seminars, forums and good food. (You can ask the experts!) Admission is $5; tables $10/first, $8 each additional, electricity $8. VE session 9:30 a.m. For information, contact Randal Lees, NØLMS, 1575 Northwest 78th St., Clive, IA 50325-1255; 515-279-4241. Talk-in on 146.82(-).

• MARYLAND •

The **Columbia Amateur Radio Association** will hold its 21st Annual CARA Hamfest Sunday, 5 Oct. 1997, 8:00 a.m.-3:30 p.m. at the Howard County Fairgrounds. It will feature computers, Amateur Radio and electronics. Amateur Exams will be given at no charge. Proceeds will benefit CARA Scholarship, amateur classes and repeater system (including open autopatch). Talk-in: 146.52 simplex, 147.135 (+), and 223.92 (-). Admission donation: $5.00, unlicensed spouses and children free! Tailgate donation: $10/space (includes one general admission/space.) Tailgating spaces will be available on a first-come basis. Table donation: 1-4, $20; 5 or more $18 (includes one general admission/table.) Call 410/531-2933 for table reservations. To guarantee your space send your check now! For Hamfest information write or call: CARA Hamfest Committee, P.O. Box 911, Columbia, MD 21044. After Sept. 20th, please phone prior to mailing.

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The **8th Annual Mason-Dixon Computer & Hamfest** will be held Sunday, 26 October 1997 at the Carroll County Ag Center, Westminster, MD, rain or shine. General admission, $5, includes tailgaters and vendors. 18 & under, free. Tailgate space–12' for $5. Vendor setup 6 a.m., gates open at 8 a.m.Great food by the Midway Fire Company, free commercial radio checks, VE exams (pre-registration requested, call Bill Wolfgang, NZ3J 717/632-4237.) Talk-in 145.410 MHz. Advance table registration: Mason-Dixon Computer Hamfest, P.O. Box 763, Hanover, PA 17331. Call George Johns, N3JKY, 717/633-6641 or gjohns@sunlink.com

• MICHIGAN •

The **Lansing Civil Defense Repeater Association and Central Michigan ARC** will hold a hamfair on 12 October from 8 a.m. to 1 p.m. (vendor setup 6 a.m.) at the heated Community Center in the NW corner of the Ingham County Fairgrounds in Mason. Take U.S. 127 to M36/Cedar St. Exit. Take M36 to the east side of Mason to the Fairgrounds. Lots of parking, refreshments,overnight camping available. Admission $4 per person, tables $10, trunk sales $5. Contact Chuck McNease, N8CM, or Linda McNease, KC8DPZ, at 517/694-2757 or LCDRA, P.O. Box 80106, Lansing, MI 48908. Talk-in on 145.390.

• MINNESOTA •

The **Twin Cities FM Club** will hold their 13th anniversary Hamfest Minnesota and Computer Expo on 25 October at the St. Paul Civic Center in St. Paul. Features include a huge flea market, educational and fun seminars, retailers, major manufacturers, fabulous prizes, and much more. Talk-in on 146.76(-). VE exams will be given and flea market setup will take place on Friday. Admission is $5.50/advance, $7/door. Contact Hamfest Minnesota & Computer Expo, P.O. Box 5598, Hopkins, MN 55343; or call the Hamfest Minnesota hot line at 612/535-0637. Talk-in on 146.76(-).

• MISSOURI •

The **St. Peters Amateur Radio Club** will hold a swapfest 28 September 1997 at the St. Charles County Community College, St Peters, MO, from 7 a.m.-1 p.m. Outdoor Flea Market, $3, indoor Flea Market, $8. Main line vendors contact Allen Underdown, NØGOM, 4136 Towers Rd., St. Charles, MO 63304; 314/939-9444; or e-mail: wbrco@valuenet.net Homepage: http://lakers.cybercon.com/wurmborn/swap.html

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The Golden Anniversary Convention of the **Quarter Century Wireless Association** will be held in Kansas City 10-12 October. Registration for hams is $12. Guests are free. Non-members are welcome, too. All programs and the banquet will be held at the Plaza Royale Hotel, just off the world-famous Country Club Plaza. Historic tours are available each day. Cut-off date for registration is 17 Sept. Contact Larry Staples, WØAIB, phone & FAX: 913/341-3068.; e-mail: lsstaples@compuserve.com or Bill McGrannahan, KØORB, Phone: 816/561-0730, FAX: 816/753-7100, NET: billmcg@qni.com

• NEW JERSEY •

The **Bergen ARA** will hold its annual Fall Hamfest 4 October at Fairleigh Dickinson University in Teaneck. Take Route 4 east/west to the River Road exit. Follow the signs to the hamfest area. Features include VE testing, plenty of parking, food and restrooms. Admission is $3; XYL and harmonics admitted free. Sellers $10. Talk-in on 146.79(-). Contact Jim Joyce, K2ZO, 201/664-6725, before 10 p.m.

• NEW YORK •

The **Long Island Amateur Radio Council,** LIMARC, presents its Fall outdoor HAMFAIR Sunday, 12 October on the grounds of Briarcliffe College,1055 Stewart Avenue,Bethpage, New York, opening at 8:30 a.m. Admission is $6 (children and sweethearts are free!) Talk-in, 146.85(-), PL 136.5. For more information contact: Diane Ortiz, K2DO, 516/286-7562, hamyl@aol.com

• NORTH CAROLINA •

The **Maysville Hamfest** will be held 12 October from 8:30 a.m. in Maysville. Admission to the hamfest is free. Outside tailgating is free. Vendors are welcome, but space is limited. A catered lunch will be available. Talk-in on 146.685. For further hamfest information, contact Jo Ann Taylor, WD4JYR, 220 Anita Forte Dr., Swansboro, NC 28584; 919/393-2120.

• OHIO •

The **Marion ARC** will hold its 24th annual Hamfiesta and Computer Show on 26 October from 8 a.m. to 3 p.m. at the Marion County fairgrounds coliseum. Prizes, refreshments and ample free parking available. Talk-in on 147.30(+).Admission is $4/advance, $5/door. Table fee $10. For information regarding tickets or tables, contact Karen Eckard, N8KE, 6583 S. Street, Meeker (Marion), OH

43302; 614/499-3565 or Betty Krist, N8UDT, 132 N. Seffner Ave., Marion, OH 43302; 614/387-3533 (after 5 p.m.).

• OREGON •

The **Mid-Valley ARES** will hold their 1997 Swap-toberfest and ARES/RACES Convention on 25 October from 9 a.m. to 3:30 p.m. at the Polk County Fairgrounds in Rickreall. Features include swap tables, dealers, exhibits, meetings and seminars. Setup 6 to 9 p.m. Friday. Emergency communications vehicles will be on display from Marion and Polk County Emergency Management, Civil Air Patrol, American Red Cross.Intel, and others as available. Admission is $6/advance, $7/door. Swap tables $13 ($15 w/power). Contact Garry Zinn, KC7GFW, at 503/378-7166.

• PENNSYLVANIA •

The **Mt. Airy VHF Radio Club, Inc.** will sponsor the Mid Atlantic States VHF Conference to be held on 4 October at Benjamin Wilson Senior Center, off Street Rd. (Rte 132), one mile east of Rte 611 on Delmont Ave, Warminster, PA. Registration is $18 per person,which includes admission to HAMARAMA held the following day. For information contact John Sortor, KB3XG, 1214 N. Trooper Rd., Norristown, PA 19403; 610/878-5674; e-mail, johnkb3xg@aol.com Our annual hamfest will be held on Sunday at the Bucks County Drive-in, four miles north of the Willow Grove exit #27 on Rt. 611, open 7 a.m. Talk-in 146.52 (simplex). Contact Brian Taylor, 215/257-6303, 7-9 p.m.

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The **Penn Wireless** ham and computer tradefest will be held on 19 October from 8 a.m. to 4 p.m. (setup 7 a.m.) at the Bucks County Community College in Newtown, next to Tyler State Park on Swamp Road. Talk-in on 145.25(-). Admission is $5 (children under 12 are free w/adult). Spaces are $10/outdoor, $15/indoor. Tables available on request — reserve early. Steve 215/752-1202. E-mail to sewall@erols.com or send to PWA Tradefest '97, P.O. Box L-734, Langhorne, PA 19047.

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The **Foothills Amateur Radio Club** will hold its annual hamfest 19 October, 8 a.m.-2 p.m. at the Greensburg Hose Company No 1, off Route 66 north of Greensburg. Admission is free. Contact Al Compton, N3LQX 555 Agnew Rd., Greensburg, PA 15601; 412/523-3727. Talk-in will be on 147.18(+). Web site http://don.pulsenet.com:80/~ares/

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The **RH Hill ARC** will hold a hamfest on 26 October at the Sellersville Fire House, Rte.152, 5 miles south of Quarkertown and 8 miles north of Montgomeryville. VE testing 10 a.m. to 1p.m., all classes, bring documents. Admission $5, XYLs and kids free. Indoor spaces $12(table included), outdoor $6, bring tables. Hamfest Hotline, Linda Erdman 215/679-5764; P.O. Box 29, Colmar, PA 18915.

• SOUTH CAROLINA •

The **York County ARS** will hold a hamfest on 4 October starting at 6 a.m. at the Knights Stadium .(I-77, exit 88,in Fort Mill.) Features include inside commercial vendors, computer dealers, flea market, huge tailgating area, food and refreshments, VE testing. Admission is $5/advance, $6/door, tables $10. For information, contact George Trunk, AB4BG, 803/327-4344. YCARS Hamfest 2129 Squire Rd., Rock Hill, SC 29730.

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The **Sumter ARA** will hold its 11th annual Hamfest and Computer Fair and ARRL State Convention 25 October at the Sumter County Exhibition Center, 700 W. Liberty St. in Sumter. VE testing, seminars, flea market, and vendors. Food is available. Talk-in on 147.015. Tickets $5 advance,$6 at the door. For information, contact Steve Bregger, KD4HTS, P.O. Box 52302, Shaw AFB, SC 29152; 803/983-4251 or Steve Heriot, KC4ZLB,115 S. Washington St. Sumter, SC 29150-5127, ph 803/773-2282.

• TENNESSEE •

The **Kingsport, Bristol** and **Johnson City** radio clubs will hold the fifteenth annual Tri-Cities Hamfest on 18 October at the Appalachian Fairgrounds, located off I-181 in Gray. Large drive-in indoor and outdoor flea market space is available. RV hookups. Admission is $5. Mail inquiries to P.O. Box 3682 CRS, Johnson City, TN 37602.

• TEXAS •

The **Temple ARC** will hold a Ham Expo, the Fall 'Fest, on 4 October at the Bell County Expo Center in Belton (from I-35 take Exit 292 to Expo Center). Features include indoor tailgate swapfest plus commercial vendors. Talk- in on 146.820(-),PL 123. Doors open at 8 a.m. Tailgate space $10; commercial vendor spaces w/tables $20, or early setup $25 (reserve by 22 September.) Contact Mike LeFan, WA5EQQ, 254/773-3590 or e-mail mlefan@vvm.com Expo netpage after 1 August, http://www.tarc.org

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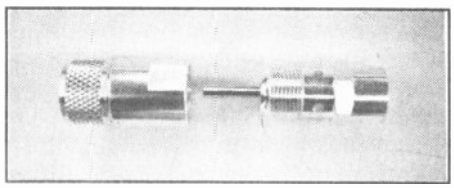
The **International Hamfiesta** will be held at the Texas National Guard Bldg. in El Paso Texas 18-19 October 8 a.m.-5 p.m. on Saturday and 8 a.m.-1 p.m. on Sunday. VE exams on both days. Admission $5 in advance and $6 at door. Tables $10 in advance and $12 at door. QCWA Breakfast. Seminars and tours. RV parking, no hook ups. Talk-In 146.88 (-) repeater. Contact Clay Emert, K5TRW, P.O. Box 23010, El Paso, TX 79923 or 915/859-5502.

• WASHINGTON •

In Bremerton 11 Oct., 9 a.m.-3 p.m., sponsored by the **North Kitsap Amateur Radio Club** at President's Hall, Kitsap County Fairgrounds, NW corner of Fairgrounds Road at Nels Nelson Rd. Talk-in 145.31 (-) or 146.52 simplex. Adm. $4 for 12 and over, under 12 free. New and used equipment. Tables $15 ea. (incl. 1 free admission) until 9/30/97; $20 ea. afterwards. Commercial spaces $30. Contact Susan Johnson, AB7MD, P.O. Box 1226, Poulsbo, WA 98370, packet AB7MD@N7WE.#WWA.USA.NOAM or e-mail address: sujohnso@linknet.kitsap.lib.wa.us

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



UHF PLUG FOR RG217/U

Nemal Electronics International of North Miami, FL has introduced a new UHF plug (male connector) for RG217/U coaxial cable. This new connector features 2-piece design for ease of installation, and allows for direct connection to equipment with UHF type receptacles. The connector features a gold-plated center contact and teflon insulation for optimum performance throughout the VHF and UHF spectrum, and a knurled body for ease of connection. Part number NE5080 is available from stock, and pricing for 100-piece quantity is $12.75.

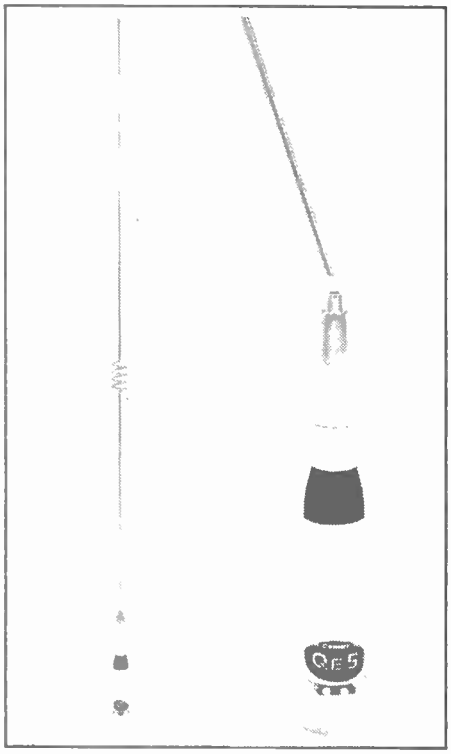
For additional information, please contact Nemal Electronics at 305/899-0900, fax 305/895-8178 or e-mail: info@nemal.com. In Brazil, please call (011) 535-2368.

Old West Graphics on the move

Old West Graphics is happy to announce the relocation to a new address. Our new address is 490 N. St. Louis Ave., Loveland, CO 80537-5878. We can be reached at 800/484-9492, Ext. 8601.

Old West Graphics markets and manufactures promotional signs and graphic design products for hams and Amateur Radio clubs throughout the world. Among the products in our line are banners, ready-to-apply computer-cut vinyl lettering, club logo decals, license plates, novelty license plates, street signs, parking signs, magnetic signs and shirts. We also offer Photo ID Name Tags for clubs involved in ARES, RACES, Skywarn and other emergency services.

The newest issue of Old West Graphics catalog is now available for hams and radio clubs interested in promoting Amateur Radio.



COMET "QE-5" 2M/70cm Mobile Antenna

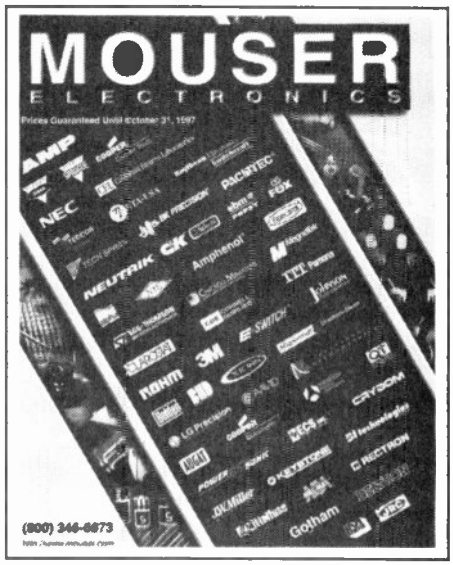
The QE-5 is a 2M/70cm dualband mobile antenna, with a unique quick-disconnect whip. On top of the power feeding coil is a spring-loaded collar. Pulling up on the collar will release the whip from the coil. The whip can be instantly removed to prevent theft/vandalism, or to conveniently allow entry into parking structures, or use an automatic car wash.

The QE-5 radiates a 1/2 wave on VHF and a 2 5/8 wave on UHF, providing 2.15dBi gain and 5.5dBi gain respectively. Its length is 38" and has a PL-259 connector.

The QE-5 quick disconnect feature avoids the problems sometimes found in fold-over type antennas. There is no hinge to break, no spring to weaken, allowing the antenna to fold over by itself at highway speed, and the vehicle can be taken through a car wash without removing the entire antenna. The QE-5 is now available from the major Amateur Radio dealers. For more information contact NCG Company at 800/962-2611; 1275 North Grove St., Anaheim, CA 92806; or visit the COMET website: www.cometantenna.com

WANTED:

Picture stories about outstanding hams. Know of any? Let us tell the world!



Mouser CD-ROM catalog

Mouser Electronics announced today the publication of their newest electronics component catalog. Updated and expanded to 356 pages, they offer over 69,000 products from more than 135 of today's leading electronic manufacturers. In addition to the paper catalog, they also offer their catalog on CD-ROM. This user-friendly guide offers their entire catalog (cover-to-cover), a new products section, product and vendor listings, service options that include an order form and credit application, a direct link to their web site, and over 1,850 of their available spec sheets!

Mouser has an established line of quality electronic components from such industry leaders as 3M, Amp, Amphenol, Dale, Mallory, NEC, SGS-Thomson, Spectrol, Sprague, Thomson-Passive, and many more. An excellent guide for anyone who has a need for electronic components. Mouser also provides same day shipping on all stocked products. You may obtain a FREE catalog or CD by calling 800/992-9943; e-mail catalog@mouser.com; fax a request 817/483-0931; or visit Mouser's web site at http://www.mouser.com

Mouser Electronics, 958 North Main Street, Mansfield, TX 76063, ph. 817/483-4422 or 800/346-6873.

MFJ *UltraLite*™ dual band and 2M magnet mount antennas

MFJ's new *UltraLites*™ will eliminate the shielding of your car and MFJ's full length radiator gives you significant gain over your rubber duck, talk to where you couldn't before. Mounted on your car's roof, it can greatly extend the range of your handheld.

MFJ's *UltraLites*™ including 9 feet of coaxial cable, weigh less than 2 ozs. — you'll take them everywhere! They're built rugged for mobile use. The whip will bend and curve to fit any briefcase, travel bag or glove compartment box.

Each MFJ *UltraLite*™ magnet mount antenna has a tiny but powerful 1 1/8" diameter rare earth magnet and a thin 20" stainless steel whip. 9 feet of flexible, RG-174U coax with BNC connector easily snakes through a closed window or door. The lightweight cable makes it easy to handle your HT. A free adapter is included for mobile rigs.

The new MFJ *UltraLites*™ will handle 50 watts on 2 Meters, 25 watts on 440 MHz (440 MHz for the dual band version only–MFJ-1722). SWR typically is less than 1.5:1. A sleek black finish will blend with any vehicle. You can quickly remove the antenna and stash it in car's glove compartment.

MFJ-1721, $14.95. 1/4 wave on 2 M. Easy to cut for any frequency to 500 MHz.

MFJ-1722, $18.95. Dual band. Full 1/4 wave on 144 MHz, 5/8 wave gain on 440 MHz.

All of our products come with MFJ's famous *"No matter what"* one-year unconditional warranty. MFJ will repair or replace (at their option) your unit for one complete year.

For your nearest dealer or to order, call toll-free 800/647-1800, fax 601/323-6551 or write to MFJ Enterprises, Inc., 300 Industrial Park Rd., Starkville, MS 39759.

MFJ-224 2M FM *SignalAnalyzer*™

Measure signal strength over 60 dB range, check and set FM deviation, measure antenna gain, beam width, front-to-back ratio, side lobes,and measure feedline loss in dB.

Plug in any scope and your MFJ FM *SignalAnalyzer*™ becomes a service monitor! It lets you visually analyze modulation wave forms, measure audio distortion, noise and instantaneous peak deviation.

You can tune in any signal between 143.5 and 148.5 MHz. Its built-in discriminator-meter function makes accurate tuning simple and easy. There's also a battery check function.

Here are some countless jobs your MFJ-224 FM*SignalAnalyzer*™ can perform: Evaluate antenna performance, compare antennas, check real-world performance of experimental antennas against computer predictions, document end-to-end cable loss in dB, plot field strength patterns for repeater or packet nodes, position your antennas to the best possible spot, measure preamp gain, tune preamps for best gain and noise figure using your meter, a scope, and a weak signal source, plus much, much more.

Track down hidden transmitters, check and set transmitter deviation anywhere in the band, analyze audio quality with the use of an oscilloscope output, tune in and identify signals using monaural or stereo headphones. Check speech quality of your radios or use as a second receiver to monitor activity and use with RF-sniffer probe to tune low power transmitter stages, tune high-Q filters and networks for best response and lowest loss.

The MFJ-224 uses a 9-volt battery. It measures 4" x 2 1/2" x 6 3/4". MFJ-224 two-meter FM *SignalAnalyzer*™ may be the most useful 2M handheld test instrument you will ever own. MFJ-224,$159.95

All of our products come with MFJ's famous *"No matter what"* one-year unconditional warranty. MFJ will repair or replace (at their option) your unit for one complete year.

For your nearest dealer or to order, call toll-free 800/647-1800, fax 601/323-6551 or write to MFJ Enterprises, Inc., 300 Industrial Park Rd., Starkville, MS 39759.

MFJ-1289W MFJ *MultiCom*™ for Windows software package

Your MFJ-1278B and MFJ-1278 TNCs will be easier to use than ever before with MFJ's new software breakthrough! You asked for it and MFJ responded. Now you can enjoy all of the power of your MFJ-1278/MFJ-1278B TNC with MFJ's new *MultiCom*™ for Windows software program. Comes with 3 1/2" HD disk, RS-232 serial port cable and extensive manual. MFJ-1289W gives you more control and play. If you use Windows, as more and more hams do, we've got the control you're looking for. Now you can use your favorite word processor, graphics program or logger at the same time you're controlling your MFJ TNC, plus you can operate more than one TNC at the same time in separate windows. Run packet on one TNC at the same time as you're enjoying a CW or RTTY QSO on another.

The MFJ-1289W *MultiCom*™ for Windows software is incredibly easy to use. You just select the mode you want by clicking a mode button. If you want to customize a mode, just click on the options button and simply make your choices. No commands to memorize or look up! A built-in help file leads you through all of the important operations of *MultiCom*™ for Windows and helps you get the most fun out of operating your MFJ TNC.

You can customize the screen your way, large screen,small screen no problem, just re-size it. Like different colors, fonts or character sizes? Set it up your way. Get maximum screen area by hiding the buttons.

Join the fun on SSTV. Save pictures in the popular BMP format for editing with your favorite graphics editor. Watch the progress of your SSTV transmission with a "progress bar." You get exciting multi-gray level FAX pictures, send and receive color Scotty 1, Scotty 2, Martin 1, Martin 2 and Robot 72 pictures. Not sure what format the transmitting station is using? Signals weak? No problem. Switch

your reception mode right in the middle of receiving.

Send and receive industry standard BMP and RLE format pictures on VHF packet with other *MultiCom*™ for Windows users. Watch the pictures form on the screen as they are being received. You can even receive pictures from non-MFJ TNCs!

MultiCom™ for Windows gives you much, much more! Packet BBS and PacketCluster toolbar Auto Router lets you set and save node routes to your favorite VHF Packet stations, Packet/Pactor Speedometer shows the speed of the link, send and receive VHF packet files using the YAPP protocol.You get a built-in graphics mode editor and local and UTC time on the screen. You can create brag files, cut and paste to and from other files. Give each a unique name and transmit with just a mouse click.

MultiCom™ for Windows requires a 386 33MHz or faster PC with at least 4 MB RAM and 5 MB disk space. Windows 3.1 or Windows 95 is required. Color SSTV and Packet pictures require VGA graphics and best color is achieved with hi-color or trucolor cards. Controlling multiple TNCs requires a separate, non-conflicting serial port for each TNC. You can use the Packet features of *MultiCom*™ for Windows on your MFJ-1270/B/C and the Packet/Pactor features on your MFJ-1276. MMFJ-1289W, $59.95.

All of our products come with MFJ's famous *"No matter what"* one-year unconditional warranty. MFJ will repair or replace (at their option) your unit for one complete year.

For your nearest dealer or to order, call toll-free 800/647-1800, fax 601/323-6551 or write to MFJ Enterprises, Inc., 300 Industrial Park Rd., Starkville, MS 39759.

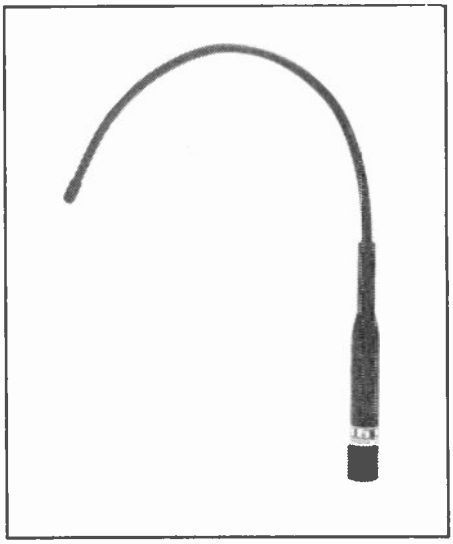
DSP Blaster™ 2.0

Brian Beezley, K6STI, announces *DSP Blaster™2.0.* The new version features coherent stereo processing of CW signals, tunable high pass, low pass, and bandpass filters, output dither, and enhanced adaptive noise reduction, automatic gain control, and automatic fine tuning. *DSP Blaster* uses your PC's processor and sound card to replace DSP filters implemented in hardware.

DSP Blaster provides SSB, CW, image, and data filters with adjustable bandwidth, highly optimized adaptive noise reduction, CW peaking filter with AFT, automatic notch filter with very low artifacts, and AGC. The unique coherent processor described on the accompanying sheet enhances CW reception in a new way. *DSP Blaster* displays the signal waveform, spectrum, and CW phase to provide insight about the signals you're hearing. It's controlled by clicking on a system block diagram with your mouse. *DSP Blaster 2.0* costs $125 and requires a 486 or better math coprocessor, VGA, 16-bit Creative Labs sound card, and mouse. For more information contact: Brian Beezley, K6STI, 3532 Linda Vista, San Marcos, CA 92069. Telephone 760/599-4962. E-mail k6sti@n2.net

Courage Cards & Gifts Catalogue

If you're starting your holiday shopping early, you may want to send for a copy of the Courage Cards and Gifts catalogue. In it you'll find a wonderful assortment of Christmas cards, calendars, ornaments, food items, mugs and T-shirts. The items in the catalog feature artists with a disability, and provide a means for them to live more independently. Contact Courage Cards and Gifts, Courage Center, 3915 Golden Valley Rd., Golden Valley, MN 55422; phone 1-612/520-0585, fax 612/520-0299 or visit the WEB site at www.courage cards.org



COMET "SBB-1 & SBB-1NMO" Mobile Antennas

The SBB-1/SBB-lNMO is a new and unique 2M/70cm mobile antenna designed to solve the problems associated with mounting antennas on high profile and sport utility vehicles. The whip is flexible and rubber coated, similar to a rubber duck HT antenna. It's rigid enough to stay vertical while driving for the best radiation pattern, but also flexible enough to hit trees, garage doors, etc., without breaking.

The SBB-1/SBB-lNMO radiates a 1/4 wave on VHF, and a 1/2 wave on UHF. It's 16" tall, anodized black, and is available in the two most popular mounting styles. The SBB-1 has a PL-259 type connector, the SBB-lNMO has an NMO type connector.

Both versions are now available from the major amateur radio dealers. For more info, contact NCG Company at 800/962-2611 or visit the COMET website: www.comet antenna. com

VE exam schedules

As a service to our readers, ***Worldradio*** presents a feature listing of those VE exams, times and locations which are sent to us. Please remember that our deadline for publication is three months in advance. For example, if your VE group is scheduling an exam for December, please have the information to us by mid-September. ***Worldradio***, 2120 28th St., Sacramento, CA 95818. Please mark the envelope "VE Exams." List the location (City), any information examinees should have (advance registration, etc.) and the name and telephone number of a person to contact for further information. Examinees should bring their original license (along with a photo copy), two forms of identification (at least one should be a photo), and required fee.

p/r pref=pre-register preferred but w/i OK
p/r=pre-register only—no w/i
w/i=walk-in only
w/i pref.=w/i preferred to p/r

State	City	Contact	Notes
Alabama			
11/04/97	Mobile	David, WA4VAC 205/649-5229	
Arizona			
11/08/97	Tucson	Joe, K7OPX 520/886-7217	w/i
Arkansas			
11/08/97	Siloam Sprgs	Mike, KJ5OP 501/524-8090	p/r
California			
11/26/97	Anaheim	Robert, AC6JM 310/429-8275	p/r pref.
11/20/97	Colton	Harold, AB6RN 909/825-7136 or 909/685-6073 (eves.)	p/r pref.
11/29/97	Culver City	Scott, K6PYP 310/459-0337 or Dave N3BKV 818/559-2572	w/i
11/01/97	Culver City	Clive, AA6TZ 310/827-2538	p/r pref.
11/01/07	Cupertino	Emmett, AE6Z 408/243-8349	w/i only
11/15/97	Cupertino	Emmett, AE6Z 408/243-8349	w/i only
11/29/97	Escondido	Harry, WA6YOO 760/743-4212	p/r
11/20/97	Ftn. Valley	Allan, AB6UB 714/531-6707	p/r pref.
11/11/97	Fremont	Dennis, K6DF 510/791-0954	w/i only
11/29/97	Garden Grove	John, KV6E 714/534-8633	p/r pref.
11/15/97	Glen Ellen	Jim, 707/996-6461	p/r pref.
11/01/97	Hesperia	Jim, 619/244-1396	w/i only
11/14/97	Irvine	Jack, WD6AEI 714/856-0802	
11/01/97	Lake Isabella	HOTLINE 619/379-2947	p/r pref.
11/21/97	Lake Isabella	Rex, 619/379-3011	p/r pref.
11/17/97	Mission Viejo	Louis, 714/951-0336	p/r
11/02/97	Oakland	Vern, AA6YE, 510/233-4504	p/r pref.
11/15/97	Orange	Richard, AA6NA 310/598-0086	p/r pref.
11/11/97	Palm Desert	Don, W6EEN 760/345-8780	p/r pref.
11/22/97	Pomona	Don, WA6HNC 909/949-0059	p/r pref.
11/15/97	Redwood City	Joe, KB6OWG 408/255-9000	w/i only
11/09/97	Sacramento	Dick, N6DK 916/383-2113	p/r
11/08/97	San Pedro	Elvin, N6DYZ 310/325-2965	p/r pref.
11/12/97	Santa Ana	Red Cross 714/835-5381 x140	w/i
11/15/97	Signal Hill	Donald, NN6Q 310/420-9480	p/r pref.
11/15/97	Stockton	Mark, W6DKI 209/465-7496	w/i
11/08/97	Sunnyvale	John, KG6XF or Gordon, W6NW 408/255-9000	w/i only
11/30/97	Sunnyvale	John, KG6XF or Gordon, W6NW 408/255-9000	w/i only
11/15/97	Westminster	Terry, 714/638-4057	
Colorado			
	All Colorado	Exam recording 303/360-7293	
11/08/97	Denver	Glenn, WØIJR 303/366-0155	w/i pref.
11/01/97	Littleton	Dave, NØHEQ 303/795-5718	w/i pref.
Connecticut			
11/20/97	Trumbull	Kevin, N1KGM 203/268-5015 or Bob, KA1ZMF 203/933-9587	
Florida			
11/13/97	Ft. Myers	Norm, AF4AZ 941/694-2505	w/i
11/15/97	Melbourne	Bill, WB9IVR 407/724-6183	p/r pref.
11/15/97	Orange Park	John, W5HUQ 904/264-5587	p/r pref.
11/27/97	Pensacola	Steve, KO4TT 904/968-1092	
11/08/97	Valparaiso	Bill, W4WIF 904/243-9720 or Hud, KF4BU 904/862-2556	p/r pref.
11/20/97	Vero Beach	Roger, K4RS 561/567-3979	w/i

State	City	Contact	Notes
Idaho			
11/08/97	Boise	Lem, W7JMH 208/343-9153	w/i pref.
11/19/97	Grangeville	Larry, AB7GY 208/983-2163	w/i pref.
Illinois			
11/08/97	Oak Forest	David, NF9N 708/448-0580	p/r pref.
Indiana			
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Weather emergencies

From the northern United States to deep in the heart of Texas, Amateur Radio operators stay busy, providing emergency communications. Radio amateurs in many states were activated because of severe weather.

South central Texas has been inundated with rain, so much of it that the town of Regan Wells was cut off by high flood waters. Lee Besing, N5NTG, says transportation and telephone service to the area were knocked out. That left Amateur Radio as a lifeline for the American Red Cross to use in providing disaster relief services.

Bexar County REACT volunteers provided communications support. That's where a linked Amateur Radio network called the Armadillo Inter Tie system came in handy. When owners of the system were told about the emergency, they immediately offered the network for emergency communications as long as needed. Using the 440 MHz band, radio amateurs provided communications back to San Antonio.

For Wisconsin radio amateurs, endurance is the big challenge. When a severe thunderstorm watch was issued just before 2 a.m. June 21st, it was the beginning of 8 inches of rain, prompting a nearly 10-hour ordeal.

Skip Voros, WD9HAS, is the area's severe weather communications coordinator. He says record flooding hit Milwaukee's north side, prompting a net on the Milwaukee Repeater Club's wide area coverage 146.91 repeater.

Club members, supporters and area hams relayed information on flooding, blocked streets, water depths and rainfall reports along with other severe weather problems. Nearly 20,000 residents had no power. Despite its record length, Voros says the net ran smoothly, thanks to cooperation, coordination and courtesy.

In another part of Wisconsin, it isn't rain, but heat that's prompting a need for Amateur Radio support. A shortage of electrical power caused by hot weather has prompted Madison Gas and Electric Company to call for power conservation measures. All this at the same time that several power generating stations are off-line for maintenance. The power company says electricity must be conserved to prevent rolling blackouts in parts of the state. Jim Romelfanger, K9ZZ, says the alert has also affected Amateur Radio operators in the Madison area. They will be on stand-by, ready to provide emergency or back-up communications in case power is lost to certain agencies.

In this age of cellular telephones and other high tech communications, you may wonder why Amateur Radio services are still requested. Experience during recent disaster emergencies suggests that the newer communications technologies don't always provide all the needed services. Sometimes the new systems don't cover the areas affected, or become overloaded. But what makes ham radio perhaps most valuable is the people; nothing seems to beat skilled operators with emergency communications experience. *—via N5NTG, WD9HAS, K9ZZ*

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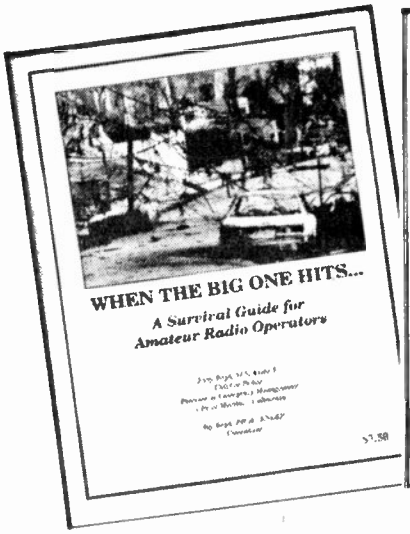

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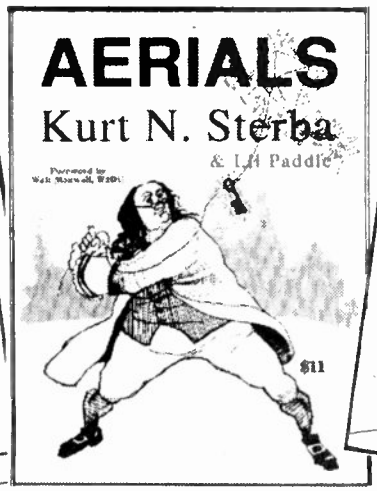

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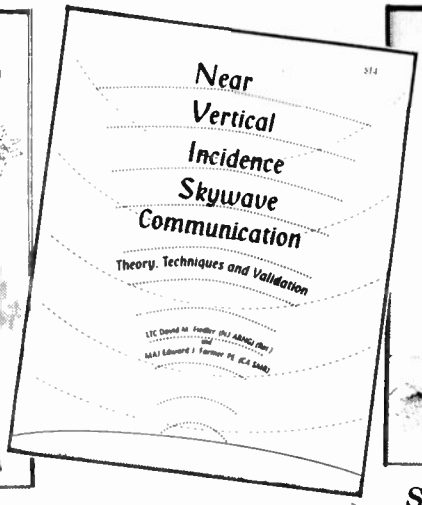

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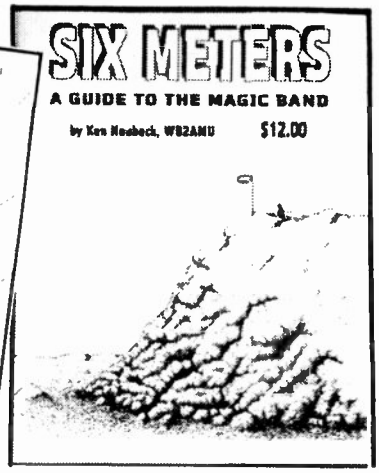

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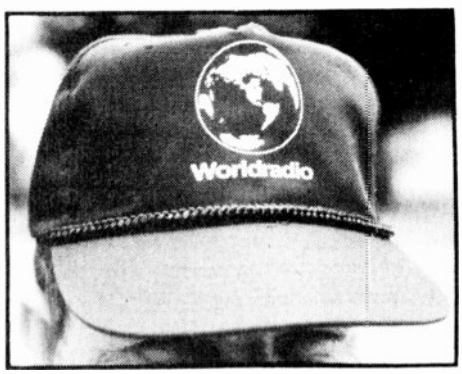

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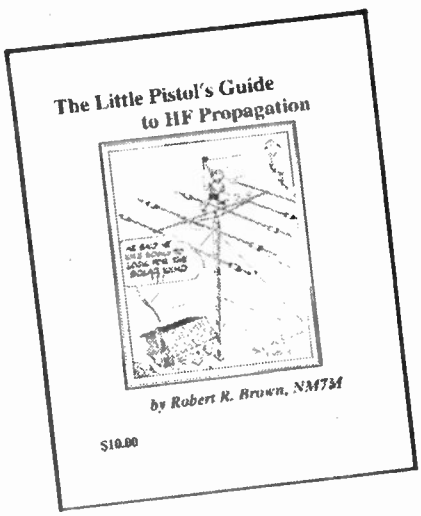

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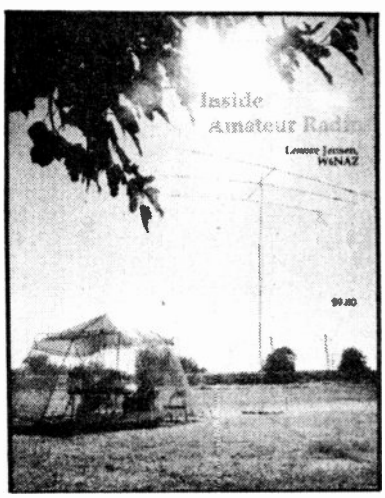

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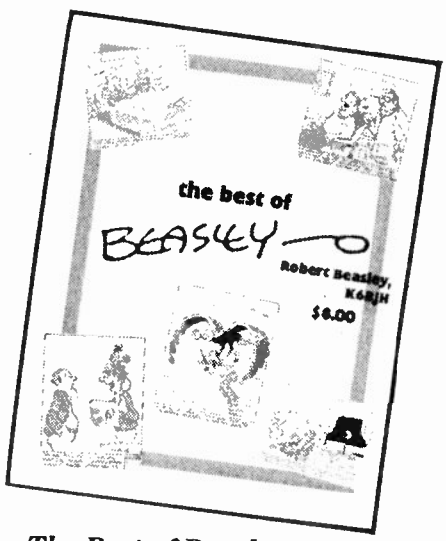

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The Rains of Summer

Musser B. Moore, WØAS, Disaster Committee Chair
Centennial Chapter American Red Cross

Be careful what you wish for; you just might get it. After weeks of hot, dry weather and worries of a big wildfire season, many along the Front Range of Colorado hoped for a bit of rain (without the lightning, thank you) to cool things down. On Monday evening, 28 July they got their wish.

Annual precipitation in Fort Collins, Colorado, is about 14 inches a year. Almost that much fell in a couple hours that Monday night. Spring Creek, which runs through the middle of town, transformed from a picturesque trickle through well-kept community parks into a demonic torrent destroying over 100 homes, causing more than a million dollars in damage at Colorado State University, and claiming five lives.

The next day, the northeast Colorado communities of Atwood, Sterling, and Illif flooded from another round of torrential storms. Before sunset Tuesday, what had started as a local Red Cross shelter and damage assessment effort in Fort Collins ballooned into a regional disaster requiring national-level Red Cross response.

Residents and emergency response agencies, at first in a state of disbelief, rapidly established what would become the largest disaster relief response in the history of the state of Colorado. Amateur Radio operators were some of the first to respond, establishing key communication links for Larimer County, City of Fort Collins, American Red Cross, and Salvation Army. Colorado ARES District 10 Emergency Coordinator, Randy Long, WB6AW, reports that over 80 amateurs logged more than 1200 man-hours during the first days of the disaster response.

The amateur-based communications allowed key information to flow between and within the several response agencies. The majority of communications involved logistic and coordination efforts between the Centennial Chapter, American Red Cross and Red Cross shelters and service centers. Other local hams helped pass health and welfare traffic on the 20-meter HF band.

The versatility and preparedness of local Amateur Radio operators became apparent during the disaster response. When the need for local amateur communications assistance began to wind down, several hams continued their volunteer efforts by assisting with damage assessment, sheltering, and family service tasks. WR

ARRL RFI expert

ARRL Lab Supervisor Ed Hare, the League's point on issues dealing with radio frequency interference, recently took advantage of the vanity call sign program to obtain an apropos new call. He is now known as W1RFI. Under his former call sign, KA1CV, Ed is well known among members of the QRP community. —*via ARRL*

ARRL to help recruit young hams

The ARRL Board will soon be introducing a program to coordinate enlisting local volunteers from League-affiliated and special service clubs to introduce young people to technology through Amateur Radio and to potential careers in technology. In creating the program, the ARRL Board cited the increasing importance of technological literacy and President Clinton's call for greater volunteer efforts on behalf of youth as reasons for the project. —*via ARRL*

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