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Worldradio

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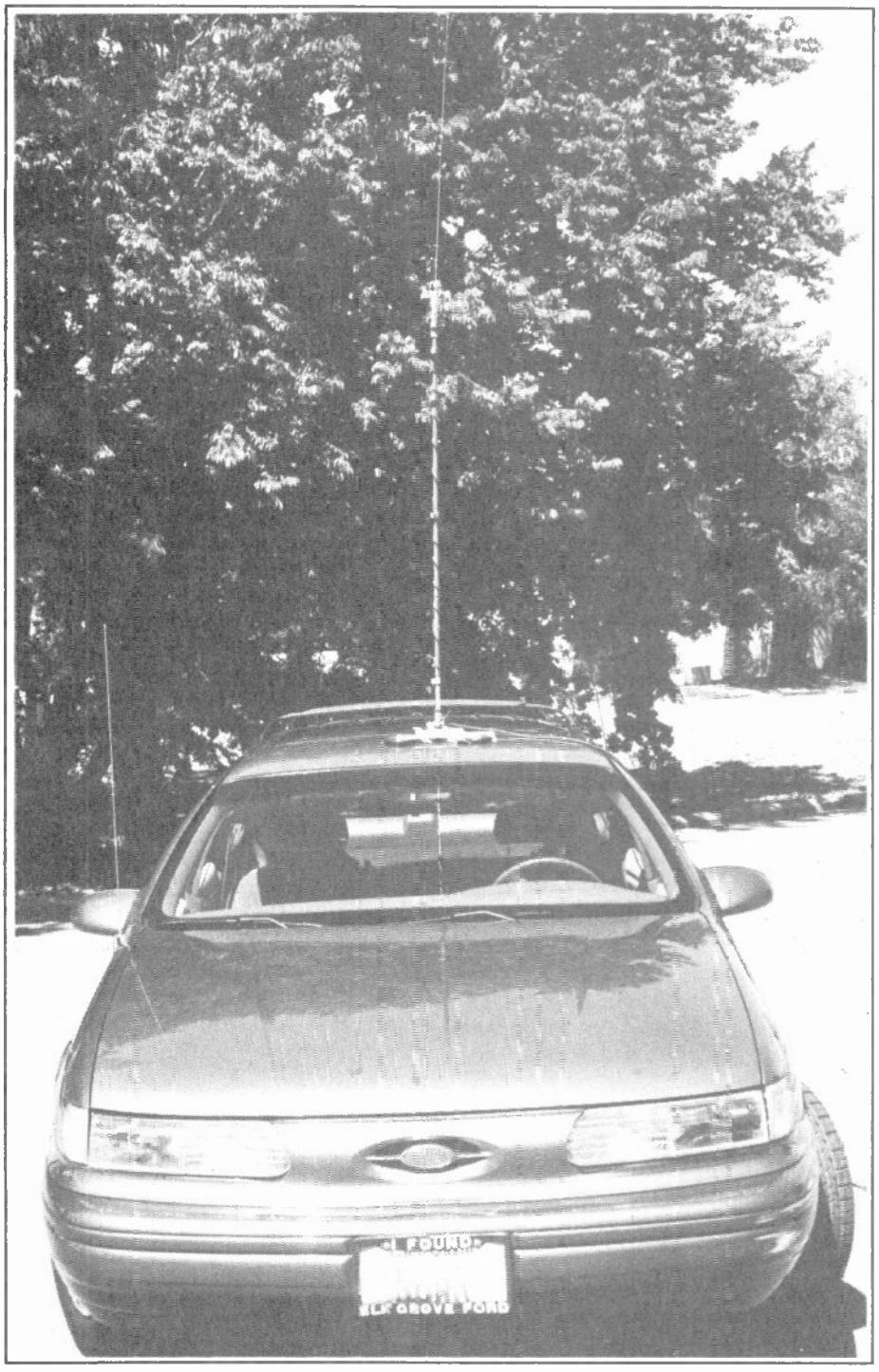

The *Worldradio* gang made its first Field Day contact at 1805Z, thanks to the Palomar AN-7 Slimline antenna.

Field Day 1997

Armond Noble, N6WR

"In these days when service to country and preparedness for any eventuality are so much in the minds of everyone, it is very heartening indeed to note the zeal with which our American radio amateurs plunge into projects designed to increase efficiency in the carrying on of emergency communication."

The paragraph above is from the December 1940 issue of *QST* in reporting the results of the eighth ARRL Field Day.

Events would transpire a year from then that would see tens of thousands of U.S. radio amateurs go on really serious field days.

Two of those amateurs (using the knowledge gained from being prewar hams) sent out a lot of RF for Uncle Sam in the '40s, K6FO and W6QEU, were part of the ***Worldradio*** Staff ARC 1997 Field Day effort. Also there were two who had worn Signal Corps insignia on their '50s uniforms, N6JM and N6WR.

Many FD groups prefer to set up way ahead of the 1800Z start time. The ***WR*** ARC often likes to see how fast they can get a station on the air, which would be the case in an actual emergency and is after all the training purpose behind Field Day.

While we could have used a watch which could be set to the exact second we thought it would be more "radio official" to get the National Bureau of Standards radio station WWV time ticks on a SONY ICF-2002 portable radio. When the 10 MHz station sent the 1800 UCT

(please turn to page 6)

NEWSFRONT

Worldradio

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

Vanity call sign Gate 3 opens 06 August

Vanity call sign Gate 3 will be opening on 06 August. According to the FCC, Advanced Class hams will be able to apply for a call sign appropriate to their license class on or after that date. Applicants must file either on a paper FCC Form 610V or electronically via the FCC's web site. Either way, there will be a $30 fee.

The 06 August deadline squeaks under the implementation of the FCC's new fiscal year 1997 fee schedule, adopted 16 June. Under the FY '97 schedule, which becomes effective 16 September 1997, the vanity application fee will jump to $50 a year.

For an in-depth look at what's required, we suggest you take your web browser over to the ARRL website at: www.arrl.org and click on W1AW Bulletins. There you will find a two-part bulletin giving all the information you need to know to file properly. You can also reach the ARRL website on a direct link from: www.arnewsline.org

No word yet on when Gate 4 will open for everyone else not covered under Gates 1 through 3. —*via FCC*

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

The ARRL Board of Directors resolved to support legislation that would provide statutory protections for Amateur Radio frequencies. In taking this action at their July 18-19 meeting in Rocky Hill,CT, 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 5650-5725 MHz and 5825-5850 MHz in the 5650-5925 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.

In another action, the Board voted to volunteer the League's services as a special event call sign common data base coordinator. The Board approved a motion to submit a request in response to a recent FCC invitation. The request will "express the League's interest in serving as a special event call sign coordinator at no cost to the applicants." The League would cooperate with other groups or individuals the FCC might select to serve as coordinators. Among other things, the League would work with them to develop common guidelines to govern the reservation of special event call signs.

Under a new policy approved by the board, ARRL Volunteer Examiners will not administer exam elements for which they have received credit on the basis of a medical exemption. The Board also proposed changes in the FCC's Volunteer Examiner rules to require that applicants attempt an accommodated Morse code exam before seeking a medical exemption, and to ensure that medical information supporting an exemption is on file before the application for exemption is forwarded to the FCC.

Noting that no clear consensus has emerged in the wake of suggestions to restructure the Amateur Radio licensing system, the Board voted to extend the period for member comments. At its January meeting, the Board had received a committee report that offered several suggestions to revamp the amateur licensing system. Until further notice, members may continue to direct comments on restructuring to their ARRL directors. The Board plans to revisit the issue at a later date. —*ARRL Bulletin*

Pathfinder ham

Pathfinder, the Mars exploration vehicle which landed on the red planet on July 4, has as its mission engineer Gordon Wood,WA6NVA. Wood, of La Canada, California, credits Amateur Radio for starting him on the path that led to his becoming the chief engineer for communications for the Pathfinder mission.

Wood works at the Jet Propulsion Laboratory in Pasadena, California. The Pathfinder mission has, so far, been a spectacular success which has captured the public's imagination. Gordon got into Amateur Radio about 40 years ago, at age 12, when his father bought him an old shortwave receiver at a thrift shop. He previously worked on the Mariner, Viking and Voyager interplanetary missions. An article in the July 4 issue of *The Los Angeles Times* quotes Wood as saying: "Mankind, after all these years, is reaching out from his own planet with little toys to snoop around and understand whatever else is out there in the universe."

Pathfinder images and news are available at <http://mars.sgi.com>, <http://mpfwww.jpl.nasa.gov>, and<http://dhcom.com/astronomy/pathfinder.htm>

— tnx to Jeff Reinhardt, AA6JR, ARRL Letter

Interference to ATC

The FCC has been called in to investigate unintentional interference to aviation communications in the Midwest. Some of the interfering

signals appear to be coming from Amateur Radio operators.

Radio interference has been interrupting communications with aircraft over western Kansas. The Kansas City Air Traffic Control Center says that the safety of passenger planes and other aircraft has not yet been at risk.

The interference has been traced to paging equipment and commercial and private radio transmitters in three states. At times the interference has been severe enough to force re-routing of planes around the affected areas.

Specially equipped aircraft helped to trace the interference to pager towers, a radio station transmitter and privately owned transmitters in Junction City Kansas, a city in Oklahoma and Lubbock and Amarillo Texas. The interference varied from Morse code to squealing or static to conversations from cellular phones, regular telephones and Amateur Radio operators.

Randy Downing, Airways Facilities Manager at the Air Traffic Control Center told the Associated Press and other media outlets that the problem has not yet been completely erased. The FCC has shut down some of the interfering transmitters, but the search is still on for other transmitters that are still causing problems.

If you live in the affected area you might consider getting your club to borrow or rent a spectrum analyzer and hold a radio tune-up day party. This to make certain that your transmitter and those of your friends are squeaky clean. *—via WØQA*

General Mobile Radio Service

The Federal Communications Commission has assigned Rule Making Number RM 9107 to a petition filed late last year by Ken Collier, KO6UX to bring back organizational licenses to the General Mobile Radio Service or GMRS. The petition would allow charitable organizations, those with 501(c)3 tax exempt status, to apply for new General Mobile Radio Service licenses or make their existing licenses once again active. Collier says that if the rulemaking succeeds it would mean that REACT teams, Red Cross chapters, SATERN groups, and other organizations interested in public service communications would be able to acquire licenses that cover everyone in the organization. For more information on RM 9701 contact Ken by e-mail to ko6ux@netsol.com. *—via KO6UX*

Congratulations to: ROBERT DANIEL, KK6YF, *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.*

W1AW seeking 20 meter bulletin reports

A change has been made to the antenna used to send the 20-meter bulletins for W1AW. Amateurs who listen to the 20-meter transmissions are requested to send signal reports, noting QTH, time of reception, mode, signal strength and quality. Use of the standard RST system is acceptable. Mail your report on a postcard to W1AW, 225 Main St., Newington, CT 06111; E-mail to w1aw@arrl.org

The complete W1AW Operating Schedule appears in July *QST*, page 83. *—ARRL Bulletin*

New Finnish regs

New regulations for Finland's radio amateurs took effect April 1st. Key changes include 3400-3408 MHz in the microwave region is now available to holders of general or technical licenses. Output power is increased to 1 kW on HF, and 150 watts CW or 600 watts PEP on VHF and third-party trafffic rules have been eased. *—via ARRL*

Poland license changes

Poland's National Radiocommunications Agency has announced a pair of new classes of Amateur Radio licenses. Class 3 includes a 5 wpm Morse code test and authorizes operation in parts of 75, 10 and 2 meters and 430-440 MHz.

A new Class 4 license has no Morse code examination and authorizes operation only from 144-146 MHz. In many ways it's Poland's equivalent of our code-free Technician class ticket in that Morse code and voice operation are permitted.

Unlike the United States, maximum output power is limited to no more than 15 watts. IARU band plans are observed by both these new classes and the minimum age to get a license is 12 years. Call signs begin with the prefix SQ, followed by the usual call-area numeral and a three-letter suffix. *—via the Polish National Amateur Radio Society*

Worldradio

September 1997

Features

Departments

Next month's columns will include 10-10, Computers & Basic Stuff, Old-time Radio, With the Handi-Hams, and YLs on the Air

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 kb6hp@ns.net

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Publisher's Microphone

This month we don't have the usual quantity but we do have the quality. The latest to become ***Worldradio*** SuperBoosters (Lifetime Subscribers) are:

***Bob Faurot, N7WYO, Sheridan, WY**
***Chris Wimmer, AB6JG, San Francisco, CA**

•

I hope that your group had at least as a enjoyable a time on Field Day as ours did. For many hams it is indeed the highlight of the year's radio activities.

When others of our team were on the rig, our DX editor, John Minke, and I were sitting in the sun. He was moaning about a QSL card recently returned to him with: "Not in the log." Painful!

So I will repeat something mentioned here before. In your shack run a tape recorder while you are chasing DX. That way you could dub the critical portion of the tape to a cassette and then send it to that station that somehow missed putting your call in his log. He could hear himself working the stations before you, after you, and you in the middle, all in his own voice, and then realize he just (in all the madness of a pileup) inadvertently missed putting you down in his log.

A tape recorder has other functions too. If you just had a terrific run on FD wouldn't you like a souvenir of that? Wouldn't it be enjoyable to sometime play back that great bit of operating?

How about Sweepstakes? Possibly you might discover that your procedure is not as great as you thought it was and may be costing you time and contacts. For many reasons, a tape recorder could be a valuable asset.

After all, this is an audio activity. Photographs and log pages are nice but possibly our archives should be the way it sounds! Some are using old VCRs as audio recorders which will go six hours without having to change tapes. There are commercially modified audio recorders that will go 12 hours. The tape moves very slowly.

•

Listening to 20 Meters the other night I heard Dave Bremmer, KØBOJ, in QSO with some stations in the Pacific. He said, "Amateur Radio brings the world a lot closer." Very true.

On the page where the mailing label goes, the Des Moines (IA) Radio Amateur Association has in big letters, "Amateur Radio is there for the Emergency." Also true.

It's interesting and instructive to think about all those who said that in the new era of sophisticated communications such as cellular phones, fax, internet, satellites, etc., Amateur Radio wouldn't have a role in emergency communications. As it turns out, in reality, when the trouble hits the cellular system turns into silly putty, the government frequencies are jampacked. And then, as always, like the cavalry to the rescue, come the Amateur Radio operators.

•

What is your favorite net? Drop us a note about the frequency, date, time and purpose and we'll print it here and possibly drum up some more members for your net.

HF mobile operation seems to be getting even more popular. We're looking for someone to conduct a column on the subject. Could that be you?

•

When you are in the market for some new equipment please give the advertisers in ***Worldradio*** your first consideration. Spend your money with the people who like you! I'll explain. In this magazine you do see ads for (for example) Yaesu radio equipment. You don't see ads for the other major manufacturers. What that means is that Yaesu really values *you.* What an advertiser looks at is the type of audience a magazine has. The companies judge the readership of a magazine. Some, pondering ***Worldradio*** subscribers, say, "They look like a really active bunch. I'd like to talk to those people and tell them about my product." Others say, "They're not worth it."

A publication (particularly one like ***Worldradio*** where the subscribers write the articles) is nothing more and nothing less than what and who its readers are. On our ad pages you see which companies hold you in high regard. You also see, by their absence, the companies who don't think much of you at all. —*Armond, N6WR*

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The foremost in top-performing, durable, dual band handhelds now includes the FTT-12 DTMF keypad with CTCSS enc/dec, DCS enc/dec, DVRS and paging/coded squelch. Manufactured to rigid commercial grade standards, the FT-50RD is the only amateur dual band HT to achieve a MIL-STD 810 rating. Already a winner; the deluxe keypad makes this stand-out HT even better! Water-resistant construction uses weather-proof gaskets to seal major internal components against the corrosive action of dust and moisture. And, the rugged FT-50RD withstands shock and vibration, so throw it in with your gear!

Exclusive features set the FT-50RD apart, too. Wide Band Receive includes 76-200 MHz (VHF), 300-540 (UHF), and 590-999 MHz*. Dual Watch checks sub-band activity while receiving on another frequency, then when a signal is detected, shifts operation to that frequency. Digital Battery Voltage displays current operating battery voltage. Digital Coded Squelch (DCS) silently monitors busy channels. Auto Range Transpond System™ (ARTS™) uses DCS to allow two radios to track one another. And, the FT-50RD is ADMS-1C Windows™ PC programming compatible, too. To round out the FT-50RD, it has four battery savers, and super loud audio—remarkable in an HT this size.

A reliable companion where ever you go, the FT-50RD is one tough little dual bander with all the features you want!

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FT-10/40R
Ultra Compact Handhelds
VHF or UHF. Similar to FT-50RD including MIL-STD 810, and other exclusive features.

SM Jetty Hill, W6RFF(r), presents Norm Brooks, K6FO, with a certificate recognizing the *Worldradio* staff ARC's 25 years as an ARRL-affiliated club.

Field Day

(continued from page 1)

"beep" a key was inserted into the lock on the back of the station wagon and out came the Yaesu FT-890 transceiver and the 13V battery which were carried to the operating position. Our first contact, N7MK on 20M, came at 1805.

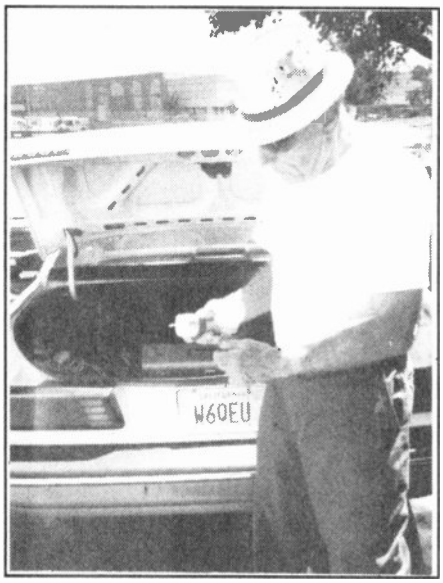
What helped make it so quick was a mobile antenna distributed by Palomar Engineers of Escondido, CA. Pre-attached to a magnetic mount the antenna was pulled out of the wagon and quickly placed on the car's roof.

How does a seven-foot antenna work on Field Day? For example, CW: 3 contacts in 4 minutes, NNJ, MI, WNY, fully across the continent from SV. SSB saw 4 QSOs in 5 minutes. There was a 5 in 7, a 6 in 10. Back to CW and there was a 6 in 9 and a 3 in 5.

Full-size dipoles were raised (high trees and a slingshot) for 80/40/20 and we then went to those antennas. As it turned out it was a fortuitous move to utilize the "Le Mans Start" (and gain three hours additional operating time) as Murphy's Law struck and we had to pull a battery out of a car, and later go to the store to get another one. But then, Field Day is supposed to be a learning experience.

Thanks to all who said, "Hello *Worldradio*," to us on the air. It is a spirit raiser, especially on 75M at 3 a.m.!

We made 507 contacts. How did you do? Have an interesting story to tell? Send an article and pictures to us.



Peter Onnigian, W6QEU, builds Field Day dipoles for 40 & 80M
—photos N6WR

What makes Field Day such a great experience? Is it being in the company of friends, as opposed to most regular radio contesting which in comparison seems a solitary event? Is it contact with the great outdoors? Is it being part of an Amateur Radio tradition that started in 1933? Is it a sense of camaraderie with the other 25,000 amateurs who are engaged in the same activity as you are?

All of the above, and more. WR

Positively CW

Nancy Kott, WZ8C

Without a doubt, the pro-code/anti-code debate is the most volatile issue to hit ham radio in years. The arguments for and against Morse have been heard by all. It's gotten out of hand, too emotional, and downright outrageous.

Morse is here to stay as a mode. It unites us with other hams in a community of camaraderie that you just don't find with other modes. CW folks are special and they are respected for a skill that is common to ham radio operators around the globe.

To encourage newcomers to our hobby, we need to show them why we enjoy Morse; using Morse can be exciting! Few experiences can compare to your first logbook page of CW contacts. I bet there isn't a ham out there who can't remember their first CW chat! You recapture that feeling each time you pick out your call sign sent through a pile-up for that rare one, contesting by yourself, or the fun of the CW tent on Field Day.

Many of us were lucky enough to have an experienced ham, affectionately called an Elmer, to give us the confidence we needed to get on the air using Morse code. Using Morse is different from just picking up a microphone and talking. After all, it's a new language with its own vocabulary. The dits and dahs can sound like one big string of musical nonsense to the nervous beginner.

New hams coming into our ranks are sorely lacking in Elmers to help them with CW basics. Things more experienced hams take for granted such as CW contact procedures and verifying contacts by QSLing can be intimidating to someone who hasn't been shown the ropes. We can't solve the problem of the lack of individual Elmers. However, through this column we can share stories, tips and encouragement for those getting started. We have to help the new hams who are interested in CW, not discourage them by what may be perceived as a snobbish attitude.

We need to share our experiences and show people who aren't "sold" on the code the reasons why we

love and protect Morse. Enthusiasm is infectious! In this column, I hope to focus on the whole world that opens up to you when you learn to communicate with this universal language.

One of the fun activities in Amateur Radio are special events. When a club has an occasion that merits recognition, they celebrate by getting on the air and sharing it with the world! They offer a commemorative certificate or special QSL card to hams who contact them during the event. Special events appeal to a diverse group of hams. Collecting special event certificates is a hobby in itself, called wallpaper chasing.

Special event stations can be fun for beginning CW operators because it gives them a chance to get on the air with a purpose. Most special event contacts are brief, exchanging basic information like your name, location and signal report. You may want to talk a bit about what special event is being celebrated, but you generally don't get into long chats or ragchews. It lets beginning CW operators get their feet wet by offering a chance to make a contact without pressure.

There is a special event happening the second weekend of September that you might like to try. It's the tenth anniversary of the FISTS CW Club. FISTS was founded in 1987 by Geo Longden, G3ZQS. Geo was concerned about the lack of Elmers for the new hams. He started FISTS with three goals in mind; to further the use of CW, to engender friendships among members and to encourage newcomers to use CW. FISTS has grown to over 3,500 members. September 12th through the 14th, FISTS members will be on the air calling CQ FSE (for FISTS Special Event). If you hear someone calling CQ FSE, simply go back to them with your call, and have a chat. FISTS members are the friendliest group you will find on the air, so don't be afraid to ask them to QRS (please slow down) if you need to.

They will be operating in the lower part of the CW General and Novice subbands. After your chat with the FISTS member, send them an SASE (self-addressed stamped envelope) and you'll receive a certificate to add to your wallpaper collection. If you don't have a wallpaper collection, who knows? You might get hooked and start one!

We need to show newcomers why we enjoy Morse!

By the way, FISTS is not an acronym. It comes from the word 'fist,' used to describe the distinctive sound each CW operator has when sending code. After you're on the air a while you'll recognize your CW friends by the way their 'fist' sounds!

Send in your stories of your CW experiences—the first times, the rare DX you put in the log when you managed to punch through the pile-up, the contests, the special events. Share your enthusiasm for CW with a positive message. Let's showcase the CW ops and help the new and potential hams develop a love for our favorite mode. In November look for our new column, "Positively CW." My address is Nancy Kott WZ8C, P.O. Box 47, Hadley. MI 48440. E-mail is nancy@tir.com **WR**

Turn a friend on to ham radio!

E-mail:
w4zc@macconnect.com

Forbes article highlights ham radio "magic"

Readers of the July 7, 1997, issue of *Forbes* magazine won't find any sleight of hand in the article "There's Magic in It," by James Clash, WA3JID. The two-page feature talks discusses what it is about ham radio that's kept the hobby alive when it "should have" died with the advent of modern communications. ARRL Executive Vice President David Sumner, K1ZZ, is among those prominently mentioned in the story — along with other ham radio luminaries such as former U.S. Senator Barry Goldwater, K7UGA; country music star Pat Loveless, KD4WUJ (who's shown spinning the dial of her transceiver); and U.S. astronaut L. Blaine Hammond, KC5HBS.

As Clash's article explains, Amateur Radio continues to thrive, and the number of hams worldwide has quadrupled over the past 30 years. The numbers have continued to increase an average of 6% annually since 1990 when the Internet started becoming a popular diversion. One point the article makes is that the Internet has become an ally of ham radio rather than an enemy.

The article apparently sparked the ham radio flame among readers, several of whom already have called the ARRL for more information about getting into (or back into) the hobby. Clash included the League's address and telephone number.

ARRL Public Relations Assistant Jennifer Gagne, N1TDY, assisted the author in gathering information and photographs for the article and served as his host during his visit to ARRL Headquarters. —*via ARRL Letter*

League calls on FCC to kill anti-theft system petition

ARRL has now filed comments on Checkpoint's EAS system, as predicted in last month's column. The League's position (see *ARRL Letter* Vol. 16, No. 26,) is that there's no justification for the FCC to consider increasing power limits or expanding the frequency range of Part 15 anti-theft systems that operate on HF. Commenting in response to the Petition for Rulemaking from Checkpoint Systems Inc., the League said the proposal was "technically baseless" and "fails to account for the extremely high interference potential" to licensed services. Under FCC rules, Part 15 devices must comply with specified radiation and emission limits and protect licensed services from harmful interference.

Pointing out that the FCC already has addressed the issue in the past, the ARRL said Checkpoint's petition was based on the simply bad policy of increasing RF emissions of Part 15 devices as a means of combating alleged increases in ambient noise levels. The League said the real reason behind the petition was to increase the marketability of one manufacturer's outdated technology in the face of newer 900-MHz technology that can handle wider separation between the exit gates, such as those that might be found in warehouses and distribution centers.

Licensing forum

The FCC held a public forum to discuss the Wireless Telecommuni-

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 the second of July.
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	ABØFW	KIØJA	++	KCØBNX
1	AA1SI	KE1IA	N1ZOA	KB1CEP
2	AB2DY	KG2MA	++	KC2CDJ
3	AA3PZ	KF3AD	N3ZRH	KB3BUF
4	AF4EB	KU4IF	++	KF4TBS
5	AC5NC	KM5KH	++	KD5BOY
6	AD6CA	KQ6QB	++	KF6MOW
7	AB7VW	KK7IM	++	KC7YOU
8	AB8AT	KI8DD	++	KC8ICF
9	AA9UR	KG9KX	++	KB9RBX
N. Mariana Is.	NHØB	AHØAY	KHØGT	WHØABH
Guam	==	AH2DD	KH2SA	WH2ANT
Hawaii	AH7V	AH6PC	KH7FB	WH6DEF
Amer. Samoa	AH8O	AH8AH	KH8DK	WH8ABF
Alaska	ALØF	AL7QU	KLØJZ	WL7CUK
Virgin Is.	++	KP2CL	NP2JR	WP2AII
Puerto Rico	NP3I	KP3AY	NP3PB	WP4NNF

== 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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Subscriptions received by the 20th of the month will begin with the issue dated two months from the month of receipt, i.e., if we receive the subscription by April 20, your first issue will be June, which will be mailed to you in early May.

cations Bureau's plans to replace its ten separate licensing application processing systems with a single, integrated system and database. The new system, called the Universal Licensing System or ULS, is expected to be on-line next year. The Commissions goals include expanding electronic filing capabilities and speeding licensing. The forum took place on 08 July in Commission Meeting Room 856, at 1919 M Street North West, in Washington, DC.

Your reporter attended the forum, and was impressed with the scope of the consolidation program. The objectives go beyond the foregoing description. The Commission now has on the order of 60 forms for applying for various licenses, and numerous databases deriving therefrom.

The objectives include radically reducing the number of licensing forms, converting them to a format fully amenable to electronic filing and even electronic funds transfer of fees, and creating a single database covering all licensing categories. You'll hear more about this as the program evolves.

Proposed Spread Spectrum rules changes

Replying to comments filed in response to the FCC's plans to relax Amateur Radio spread spectrum (SS) rules, the ARRL has suggested that the Commission "arrived at a balanced approach" in its Notice of Proposed Rulemaking (FCC 97-10, released March 3, 1997). The Notice proposed to amend Part 97 rules to facilitate spread spectrum communication by means of additional spreading codes and the incorporation of automatic power-limiting circuitry. The League said the Commission's notice was "carefully crafted to accommodate competing interests," including more flexibility for ham SS operation and avoidance of problems with other users, including narrowband ham operation and unlicensed Part 15 devices. The ARRL had originally petitioned for the SS rules changes.

The comments were split among those who felt the rules changes were too liberal and those who felt they didn't go far enough. Among the recurring themes were issues involving the incompatibility of narrowband modes and SS on the same bands and the requirement for automatic power control (amateur SS operations are currently restricted to a maximum of 100 W output). Under the proposed rule, operation about 1 W would require provisions to reduce power automatically to the minimum necessary. Some commenters recommended that the FCC also permit in-mode station identification and permit SS emissions on all ham bands above 50 MHz. The League noted that concerns about possible SS interference with weak-signal and satellite work in the same bands were beyond the scope of the proceeding, because the Notice "does not propose to either increase power for SS emissions, nor expand the frequencies on which SS transmissions may be conducted."

The ARRL said that because commenters cited no instances of interference, "there is thus no justification for imposition of additional restrictions on SS emissions." The ARRL filing added that informal band planning was the best approach to avoiding interference to narrowband users. The ARRL also deflected opposing comments of Part 15 users by noting that they "generally have no [legal] standing to object to Amateur Service rules changes."

The League urged the FCC to adopt the changes spelled out in its March Notice "without delay." The rules changes "will permit increased experimentation and continued protection against any increase in interference potential," the League's filing stated. —*tnx ARRL Letter*

ITU Progress report

The meeting of ITU Radiocommunication Study Group 8, reported below, took place after the meeting of the Conference Preparatory Group for WRC-97, reported here last month ("ITU Concludes pre-WRC-97 Talks"). ARRL International Vice President Larry Price and Technical Relations Manager Paul Rinaldo represented the IARU and ARRL, respectively. (ITU Radiocommunication Study Group 8 deals with mobile, amateur, radio determination and related satellite services). (Ed: A few words are in order on the distinction between a Conference Preparatory Group and the continuing work of Radiocommunication Study Groups. A Conference Preparatory Group coordinates the preparation of and approves the preparatory report on technical, operational and procedural bases for a particular World Radiocommunication Conference (e.g., WRC-97). Although most of the substance of the report is prepared by the relevant Study Groups, the Conference Preparatory Group can set up Task Groups, if needed, and consider additional contributions).

Rinaldo presented his final progress report as chairman of Task Group 8/2, which has been dealing with wind profiler radars. He reported that the results of the group's work had been accepted by the recently concluded 1997 Conference Preparatory Meeting (CPM-97). Task Group 8/2 produced a new ITU-R report and three new recommendations, which have now been approved. While sharing could not be avoided entirely, it was possible to influence the choice of frequencies to minimize interference to the amateur and amateur-satellite services.

There was consideration of the structure of SG 8. The outcome was that the amateur services will continue to be part of Working Party 8A along with land mobile.

The new chairman of ITU-R Working Party 8D (mobile-satellite service), Takeshi Mizuike, of the KDD R&D Lab, is familiar with Amateur Radio. He will be dealing with technical studies related to Little and Big LEOs.

IARU raised the question of whether a special Task Group should be established to handle WRC-99 preparatory studies related to Radio Regulations Article S25, which has been assigned to Study Group 8. The question was considered to be premature, as the Chairman of SG 8 wants to wait until immediately after WRC-97 to decide how the Study Group will prepare for WRC-99.

ARRL proposes use of 7100-7300 MHz in Samoa

ARRL requests 7100-7300 kHz for American Samoa: The League has asked the FCC to amend its Amateur Service rules to permit ham use of 7100 to 7300 kHz in the Territory of American Samoa on a non-interference basis to broadcasters "as a domestic exception to the International table of Frequency Allocations." American Samoa, in ITU Region 3, is an unincorporated, unorganized territory of the US some 2100 miles from New Zealand. The current 40 Meter band in Region 3 extends from 7000 to 7100 kHz.

The ARRL said the absence of ham access to the entire 7000 to 7300 kHz band impedes communication "because the emergency communications stations that would otherwise be accessible to American Samoa amateurs are established above 7100 kHz." The petition notes that Western Samoa, Australia and New Zealand all permit domestic use of the entire 7000 to 7300 kHz allocation by hams as long as harmful interference is not caused to the primary occupant of the 7100 to 7300 segment in Region 3, the broadcasting service. —*tnx ARRL Letter* WR

QST's YL News editor

Diane Ortiz, K2DO, has been named as the new editor of *QST* magazines' bimonthly "YL News" column. Ms. Ortiz is an editorial manager and writer at *Newsday*, one of New York City and Long Island's largest daily newspapers. — *via ARRL*

Before disaster strikes...

Neil Dabb, KC7GCL

When disaster strikes, Amateur Radio operators jump to the forefront and provide communications for the authorities, as well as the victims. But how often do you hear about preventing or mitigating the damage? When there is warning, there may be things the hams can do to help minimize or prevent the damage done by the threatening forces.

1997 brought excessive snow packs to Utah, and a late spring threatened various areas of the state with flooding that would be comparable to devastating floods that the state had experienced in 1983. This prompted the general population to make preparations. Homes were sandbagged, and waterways were cleared and deepened. But in the city of Logan another precaution was taken. The hams were called out and began a river watch.

From the hours of 10 p.m. to 6 a.m., the river was checked for debris and erosion. Amateur Radio operators checked the river every two hours for a period of three weeks as the river rose to a peak, subsided, then peaked once more. Any problems that were encountered were then passed on to the city crews for action as needed.

Operator safety was stressed from the outset, and its importance was underscored when an operator fell in a hole near one of the bridges, and suffered a broken leg. All operators were asked to have someone with them, and communications between volunteers passing on the locations of slick spots, and other areas of potential danger became more frequent.

A nightly net was held to pass on general information and coordinate the hams' efforts. The local repeater went down and stayed down until after the river had peaked a second time, but the net continued to meet on simplex.

While the floods never did come in force (to the amazement of every meteorologist in the area), there were areas where the hams' precautions did make a difference. Just south of the Logan River there is a small stream called Spring Creek. Shortly after the watch started, Spring Creek rose sharply and overloaded the culvert that feeds it into the Logan River. This forced the creek waters over a road and into a subdivision. The watch operators were able to monitor the level of the water behind the dikes that were set up, call in the pumps and assist in sandbagging efforts in time to keep the water from doing any damage as it peaked.

Of course, not all disasters give early warnings. Not all have the happy ending that we were able to have in Logan. But Amateur Radio operators should be prepared to assist when the floods (or earthquakes or other disasters) occur — and, whenever possible, be a step ahead of the rest in volunteering to help prevent or repair the damage. WR

MIR-to-Earth communications

Another United States ground tracking station has been upgraded and is on-line to assist in MIR-to-Earth communications. According to Astronaut and Amateur Radio operator Ron Parise, WA4SIR, the antenna system at Wallops has been changed to a quad yagi. Also the RF system has been upgraded as well. According to Parise's posting on the AMSAT BBS, look for additional MIR support through White Sands beginning this month while an update on the gear at the Dryden Spaceflight Center at Edwards Air Force Base in California goes toward completion.—*via AMSAT-NA BBS*

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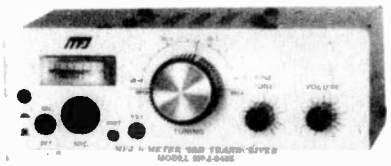

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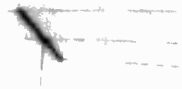

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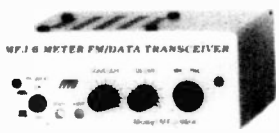

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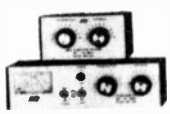

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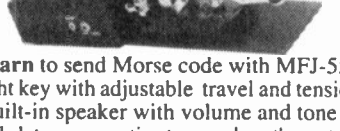

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On DXing and the Long-Haired Stars

Bob Brown, NM7M

We've all been treated to the sights of two comets in the past year, Comet Hyakutake and Comet Hale-Bopp. I won't say that words failed me when I first saw them in the sky but you have to admit they were awesome. So like the rare sighting of an aurora, they reminded me again of the vast physical universe out there. But amateur astronomers are always conscious of that; after all, that's their playground.

With two bright comets within one year's time, amateur astronomers have been busy and their publications, like Sky and Telescope, show the fruits of their labors with fine photographs. For amateur astronomers, I suspect those photos are the equivalent of our QSL cards from rare DX. But I digress.

The photos gave detailed views of the cometary nuclei, coma and tails, the latter giving the impressive appearance to comets by extending out several million kilometers. In days of yore, the appearances of comets were viewed with alarm and they were associated with all sorts of disasters. But the passage of time and the rise of modern science changed all that and now, in our sophistication, we can discuss the fact that "long-haired stars" have two types of tails, one of dust and the other of gaseous ions. As the saying goes, "We've come a long way!"

The dust tails are opaque and stars cannot be seen through them, as you may have noted from recent photos of Comet Hale-Bopp. They are thought to be micron-size particles as their spectra are essentially that of reflected sunlight. And the dust tails point away from the sun, their orientation related to the radiation pressure from sunlight.

The ion tails are the most interesting to us, even though we are Amateur Radio operators and not astronomers. That is because they are derived from solar wind particles, protons or hydrogen nuclei, which undergo charge-exchange with various types of carbon molecules coming from the comet itself. Now our DXing is affected by those same processes in the ionosphere, the incidence of the solar wind and charge-exchange of O+ in the F-region. Comet watching and DXing would seem kindred affairs so let's look at those ideas, starting with the solar wind.

The idea of a solar wind has been around for a long time. Thus, geophysicists called attention to records showing the recurrence of aurora and geomagnetic storms at the solar rotation period and put forth the idea of streams of matter from the sun, sweeping by the earth, to explain the recurrences. Of course, in the early days of HF radio, starting with the trans-Atlantic radiotelephone service, there were also many cases of recurrent disruptions of radio circuits, again supporting the idea of solar streams but from an ionospheric standpoint. But those results — for aurora, magnetic storms and ionospheric disturbances — only dealt with the geometry of the solar streams, not with their speed nor particle density.

For that next step, comets were important and the focus was on ion tails. As you may have noted from recent photos of Comet Hale-Bopp, its ion tail was transparent and stars could be seen through it, indicating that light from the stars did not interact appreciably with the ions. But ion tails have an orientation away from the Sun and the spectra coming from them turns out to be mainly that of ionized carbon compounds, known from laboratory experiments. That led Ludwig Biermann, a German astrophysicist, to propose an interaction between cometary gases and charged particles streaming out from the sun's corona, the solar wind.

The idea was that the ionized part of the comet tail resulted from the charge-exchange between solar protons streaming by and molecules of cometary gas. When worked out, it was possible to get an estimate of the properties of the solar wind, something like 10 protons per cc streaming along at about 1,000 km/sec. Those numbers are in agreement with the range of values observed nowadays in satellite studies of the solar wind. Meanwhile, back on earth, we're always orbiting the sun and constantly being exposed to the solar wind. But our situation is more complicated than that of the comet. The earth has a magnetic field so

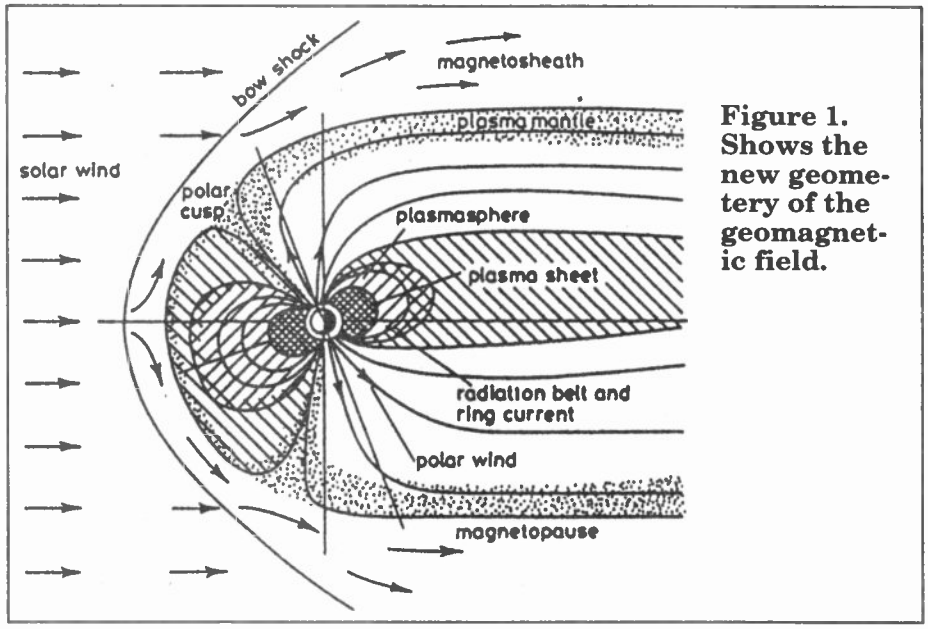


Figure 1. Shows the new geometery of the geomagnetic field.

that changes everything and, in contrast to comets, it gives us something like an invisible "magnetic hair-do" instead of those long tails of ions and dust.

That's due to interactions between the solar wind and the field, which results in lines of magnetic force on the sunward side of the earth being pushed in, compressed instead of extending out toward the sun. And in the anti-solar direction, field lines are pulled back and make up a long magneto-tail. This new geometery of the geomagnetic field is shown in Figure 1. Too, there's an interplanetary field which can couple with the earth's field from time to time and produce wild, flaming aurorae for us to see.

All that takes place above the F-region that's so vital to our DXing but some aspects of those interactions get through, to our attention or even dismay. In that regard, I am referring to disruptions in propagation and DXing, drastic changes in levels of ionization in the F-region on the paths we're interested in. Of course, the basic level of ionization is set by the solar UV radiation, the sunspot number and varies in a regular manner, by day or season. But changes in the solar wind, either its speed, density or field orientation, can affect the levels of ionization by altering the geomagnetic field configuration and releasing some F-region electrons held on the field lines by magnetic forces.

Anyway, such disturbances are called magnetic storms and as a DXer, you know what bad news they bring — low MUFs for hours or even days. So even though we're down deep, inside ionosphere and well within the earth's field, we're affected by the solar wind, just like the comets. The difference is in the details; let me explain.

If we could continuously follow the light intensity coming from a comet's ion tail and its orientation, we might be able to see the changes in the solar wind and interplanetary field without all the complicated interactions that take place overhead here on earth. But that's just not possible so we have to be satisfied with the idea that comet's ion tails simply give us some tangible, even visible evidence of the solar wind blowing across the vast expanse of the solar system.

But with the occurrence of aurora, we're made aware that changes do occur in the solar wind, seen through the complicated processes taking place at the outer limits of the geomagnetic field. Again, that's visible evidence but now for the changes in the solar wind. When it comes to the actual physical features of the solar wind, that's the job of instruments on the Wind Spacecraft, sitting out there between the earth and the sun, monitoring the solar wind's speed, the particle density and magnetic field values, both magnitude and orientation.

The aurora, of course, can contribute to VHF DXing by auroral E-layer propagation, even on 144 MHz and above. So VHF DXers constantly watch the level of geomagnetic activity, looking for high K-indices as indications of auroral activity, impending or actually in progress. But the solar wind that blows by comets also blows past the earth and by its changes or turbulence, it blows something that's considered good in some circles. But then again, the magnetic disturbances that go with aurora serve to disrupt the F-region and the auroral ionization adds to the total ionospheric absorption on paths which cross the polar caps. So, as the saying goes, "It's an ill wind that blows no good!" or is it the other way around?

Earlier, I said that comet watching and DXing were kindred affairs but let me say now that evidence suggests something more, perhaps an actual kinship. I say that as there is evidence of cometary debris right here on earth, on the ground and overhead. On the ground, of course, I'm speaking of meteorites from the break-up of comets as well as cometary debris in the form of meteor showers and dust, some of which settles on the earth and adds to its mass.

Then overhead, where we do our DXing, we see the cometary influence in sporadic E (Es) propagation where thin, dense layers of ionization associated with wind shears are found at E-region heights. Again, like auroral E-layers, Es layers are a delight to the VHF DXers, giving them contacts that are almost as good as those on HF which use the higher F-layer. So those layers can have electron densities high enough to give echos and propagation in the 2-meter band and beyond.

Sounding rockets carrying mass spectrometers have found that Es layers contain metallic ions, just the sort of thing we'd expect to come from meteorites and their debris. Their presence helps explain the long duration of sporadic E events as ions of metal atoms, like atomic oxygen ions O+, recombine with electrons very slowly, about 100,000 times slower than the molecular ions of oxygen and nitrogen at those altitudes. The metallic or atomic oxygen ion recombination involves the emission of a photon and runs up hard against the physics of quantum theory. The same is true of molecular ion recombination but it results in dissociation of the molecule into two atoms, easier and much more probable or faster by the rules of quantum mechanics. As a result, the Es electron layer has a long lifetime and VHF DXers get the benefit.

Finally, I mentioned earlier that charge exchange was felt to be the mechanism that changes comet gas molecules to molecular ions and the protons in the solar wind provide the charge. And I indicated that charge-exchange is important in the terrestrial ionosphere. That is indeed the case and it takes place high in the F-region where atomic oxygen ions, O+, swap places with atoms in nitrogen molecules, resulting in nitric oxide ions, NO+.

The recombination of NO+ with electrons is a fast process and would rapidly reduce the level of ionization in the F-region were it not for the fact that the charge-exchange of O+ is a slow process and turns out to be the controlling factor. Now comes the "punch line": the ratio of oxygen atoms to nitrogen molecules (and oxygen molecules too) varies with seasons because of atmospheric heating and cooling. That affects the ionization at F-region altitudes and DXing, through the MUFs changing with seasons.

That may seem complicated (and it is) but if you think about it, we're talking about a self-inflicted wound, due to our getting involved with Amateur Radio and DXing. Some people just look up at the stars, seeing nothing until somebody points out a "long- haired star" in the sky. Amateur radio operators, on the other hand, look deeper into the sky than the casual observer and enjoy or suffer the benefits that are derived from all those complicated processes. I like that idea, don't you? WR

Test-taking tips for hams

Alan Craig, WB9YKA

Congratulations! The fact that you are reading this article implies that you are either interested in taking a test to upgrade your current license class, get your first license, or taking a test for other certifications such as the commercial general radiotelephone license.

Many people dread the thought of taking a test, but there are many reasons why you might *want* to take a test. If the test is for your first license it can open up the whole world of Amateur Radio. Upgrading your current license will give you new privileges, new opportunities, and perhaps a new call sign. Preparing for a test is a good opportunity to learn new things, review previous knowledge, and practice problem solving. Besides the new privileges you might gain, it is always a good feeling to successfully pass an examination as a personal accomplishment.

The purpose of this article is not to aid in shirking or minimizing the amount of effort required to pass a test. Rather, it is to give you the best possible chance of passing the test and accurately showing what you do know. This article can't guarantee a pass, but can help your chances by aiding you in preparing for and taking the exam.

This article will focus on the written portions of the examination. Code tips will be saved for another article.

Before the test

Be prepared. The best confidence builder is adequate preparation. Be sure you are studying current, correct material. Nothing is as disheartening as failing an examination and finding out later it was because you studied out-of-date information.

Call ahead to the group who is administering the exam you will be taking and ask them for details regarding which question pools they will be using. Plan to spend some time studying every day before the test rather than during a few long cram sessions immediately before the test.

While preparing for the rules questions, try to understand the motivation behind the rules. The rules on the test generally pertain to the new privileges which are granted by the new license you are seeking. For example, Extra Class hams are granted the privilege of becoming volunteer examiners and administering tests. Consequently, you can expect questions covering rules regarding administering exams to appear on the Extra test.

"Find the problems you can't solve... spend most of your time reviewing the theory behind the problem and practice, practice, practice."

Be sure to learn about units. Units are designators which describe the type of information a numerical value represents. For example, ohms are the units of resistance, volts are the units of potential, watts are the units of power, farads the units of capacitance, and amps the units of current. Learning relationships between units can aid in solving problems. For example, multiplying a value in volts by a value in amps yields an answer in watts. Be careful of the units in your answer if the quantities you are computing use prefixes such as milli, micro, pico, kilo, or mega. If you carry the units with each component, and check the resulting units on your answer you can often determine if you are on the right track for solving the problem.

Practice solving problems. Obtain the question pools for the element you are taking and practice solving every problem in the pool. Always write down any information given in the problem, as well as any formulas you think may apply. This can often trigger an idea of how to solve the problem. Find the problems you can't solve and spend most of your study time reviewing the theory behind the problem and practice, practice, practice. Overlearn any memory material such as resistor color codes, the formula for computing the length of a half wave dipole, and metric prefixes so you don't even have to think about them. Look for patterns in other material which needs to be memorized. For example, remember that CW portions of ham bands are generally below the phone portions.

Use any available resources which may aid you in your preparation time. Study guides, tutorial computer programs, Amateur Radio club classes, and other hams can be a great benefit in preparing for your next test. Be sure to create your own formula sheet where you write down any definitions and formulas that you encounter during your studying. The act of writing them down aids in locking them in your mind. Try explaining concepts to other people. If you can't describe the principle, you probably don't understand it well yourself. Get plenty of sleep the night before the test. If you have adequately prepared, the extra sleep will be more important than late night, last minute cramming. Of course, if there are still major topics you haven't learned it is important to prepare for them before taking the exam. If there are significant amounts of material you are unprepared for, it is unlikely that a late night session will prepare you adequately for the exam, and for utilizing effectively the information after the test.

At the test site

Be sure to call ahead to the examination team to find out where and when the test will be held — also ask about anything you need to bring. Generally you will need to bring exact change for the test fee, sharpened pencils, eraser, calculator, the original *and* a photocopy copy of your current license, and any certificates of successful completion you have. Also bring a photo ID. If necessary, drive to the test site ahead of time so you're sure you will be able to find it on the test day.

When the fateful day of the test arrives, plan to be at the test site a few minutes early so you can acclimate to the environment and have time to fill out any required forms. Be sure to stop in the restroom facilities before entering the testing room. If you have a choice of where to sit during the test, choose a seat away from the door, and as far as

possible from anyone else who is taking a test in the room. Avoid talking with anyone who promotes anxiety, or nervousness. Relax!

During the test

Sometimes the very questions which were a breeze during study sessions seem to be much more difficult during the test. If this is the case, stop, regroup, and think about the question being asked. Think about what makes sense.

Rules, procedures, and problems generally are on the test for some practical reason. Draw upon any previous operating practice you may have to help gain a sense for what the answer might be. Answer the easy questions first, being careful to place the answer in the correct position on the answer sheet. Then go back and solve any problems you did not get the first time through. Eliminate obviously wrong possibilities in the multiple choice questions. On calculation problems write down any information that is given and be sure to check the units on your answer. Also remember to use units to your advantage in solving problems. Check to see if the answer makes sense. For example, if you compute that the length of a half wave dipole for 20 meters is 1000 feet, you have obviously made a mistake. Stop and think about what makes sense.

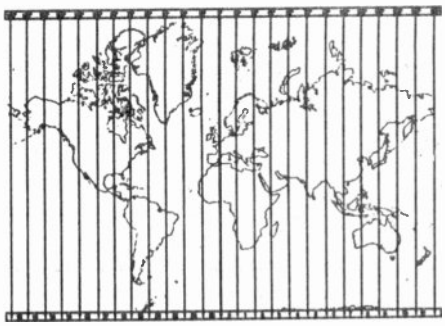
Leave no question unanswered. Recheck all arithmetic. Review all answers including the easy ones. You certainly don't want to lose points carelessly on questions you know. If you have any questions about the test itself, raise your hand and ask an exam proctor for clarification.

After the test

If for any reason you failed the test, don't despair. Use the experience as a study session in preparation for the next offering of the exam. Try to remember the kinds of questions that gave you problems and restudy and practice them.

If all goes well, and you passed the test, *congratulations*! Now is the time to breath a sigh of relief, relax, and begin using your new privileges. One responsibility of passing is to find someone else who is preparing for the exam, make yourself available as a resource to them while they are studying to upgrade, and share with them the techniques that helped you. WR

Awards



100 Nations Award

In an effort to encourage personal communications among peoples around the world via Amateur Radio, ***Worldradio*** offers the *Worked 100 Nations Award* to those confirming two-way amateur communications with permanent stations in 100 distinct countries having a permanent, native population.

The purpose of the ***Worldradio*** *Worked 100 Nations Award* is to demonstrate the unique opportunity Amateur Radio offers for communications between international borders to further worldwide understanding.

The *W-100-N* is not a radio sport award as such, but a token of achievement in communication. At the same time, it offers all Amateur Radio enthusiasts several features not found in other awards.

1. W-100-N virtually eliminates the need to work geographic areas heard only during DXpeditions. Almost all national entities have amateur stations consistently on the air.

2. W-100-N, then, will be of perennial interest. The advantage to those stations having worked a national entity long absent from the air will be minimal.

3. W-100-N is difficult to achieve, yet is within reach of all moderately well-equipped stations whose operators utilize good communication skills.

Rules

1. The *Worked 100 Nations Award* is available to any licensed Amateur Radio operator who can prove confirmation of two-way communications with government-authorized Amateur Radio stations in at least 100 different nations of the world.

2. No contacts with stations using reciprocal calls will count toward this award, such as N6JM/UL7.

3. All contacts must be with land-based stations. Contacts with ships, at anchor or otherwise, and aircraft cannot be considered.

4. All contacts shall be made from the same country.

5. Only contacts made on or after 01 January 1978 will count.

6. The application shall include the following:

a. Letter requesting W-100-N.

b. List of contacts in alphabetical order by prefix showing nation, station call, date, band and mode.

c. A signed statement by two other licensed radio amateurs, General class or above that they have inspected the required QSL cards.

d. A fee of $5 to cover the cost of the award.

7. All applications and requests shall be addressed to:

W-100-N Award Manager
Worldradio
2120 28th Street
Sacramento, CA 95818

8. There are no special endorsements to this award, however, endorsements may be made if the achievement bears such recognition. All modes and bands may be used.

Upon approval of an application for W-100-N, a certificate will be issued and the issuance of the award will be noted in a future issue of ***Worldradio.***

W-100-N nations list criteria

1. In all cases each "nation" will be both a political and geographical entity at the same time.

2. In all cases each "nation" will be a geographical and political entity independent enough to issue distinctive postage stamps acceptable in international mail.

3. In all cases each "nation" will be a geographical and political entity whose amateur stations are

a. identifiable by a specific call sign prefix series allocation assigned to that entity by the International Telecommunications Union, or

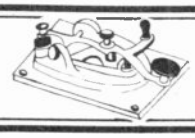
b. identifiable by a specific call sign prefix or suffix series normally used in the issuance of amateur licenses to new amateur licensees under ITU prefix allocations by the sovereign government of the entity.

4. No geographical or political entity lacking a permanent, native population will be considered for status as a nation.

5. Geographical and political entities which do not issue distinctive postage stamps but have permanent, native populations will be considered to be part of the same entity that issues postage stamps for use in that area.

6. Geographical and political entities which issue postage stamps but do not have permanent, native populations will not be considered "nations" for the purposes of this award. WR

Silent Keys



Rick Robinson, K1JRW

Rick Robinson, K1JRW, passed away 14 June 1997, after a valiant fight against cancer. He was 78 years old. An active VHFer, he held DXCC #12 for confirming 100 countries on 6 Meters.

He was always glad to alert others of band conditions and share news of interest with his fellow operators.

Rick is survived by his daughter, Ellen McKay, of Shutesbury, Massachusetts. —*Ron Klimas, WZ1V*

Lee Faber, W7EH

Leon "Lee" Faber, W7EH, became a silent key on July 8, 1997, at the age of 97. Lee was born in Paw Paw, Illinois, on February 2, 1900.

In 1913, Lee built his first crystal set, put up his first antenna, and learned code by copying spark code signals transmitted by the Illinois Watch Company, 50 miles from his Paw Paw home.

Lee was first licensed as 9EH in 1917 but, like all hams, was off the air during WWI. Following the war, he held the call sign 9AMK, and then W9DAX.

In 1921, Lee attended the first ARRL convention and many years later received a plaque from the League, honoring him for his 70+ years of membership. Lee remained an ardent supporter of the ARRL throughout his 80 years as a licensed amateur.

Lee began grinding crystals in 1932 and, foreseeing their importance in the future of radio, he formed the Faberadio Electric Company. He supplied crystals to the MacMillan Arctic Expedition, the National Broadcasting Company, the Columbia Broadcasting Company, and several foreign markets.

WWII presented new opportunities. The War Production Board sought Lee's expertise, so together with James Knight, 9HMZ, the James Knight Company was formed. The crystal manufacturing company grew from a handful of employees to 300 employees near war's end.

After the war, the James Knight Co. continued to supply crystals for Collins Radio, E. F. Johnson, Hallicrafters, Heathkit, Allied Radio, Phillips of Canada, RME, Gates, RCA, and Bell Telephone.

In 1950, Lee erected a 125' mast with 36 elements on 10 meters. The mast, housed within a 35' tower, was rotated by a milling table and powered by a 3/4 horse power motor. (See *QST*, October, 1950, "T-Day in Sandwich.")

At the age of 58, Lee sold his share of the James Knight Co. and moved his family to Arizona where he enjoyed exploring the state and helping his friend, Senator Barry Goldwater, K7UGA, with his antennas. In addition to his home in Phoenix, Lee maintained a summer home in Show Low, AZ.

Lee remained active in Amateur Radio until the time of his death, always enjoying the challenge of an antenna party and the thrill of meeting friends on the air.

Lee is survived by his daughter Beverly Jahn, and his son Bart Faber. Per Lee's last request there were no services. His ashes will be spread over the White Mountains. In lieu of flowers, contributions may be sent to: RACES c/o Doug King 608 S. East St., Globe, AZ 85501. —*Judy Roush, AA7UC*

Wendal Poynter, KA6GWZ

Bill Poynter passed away in his sleep on 08 June 1997. He was circuit control of the Pacific Maritime net on 15 Meters until he stepped down due to a severe heart condition. He enlisted in the RCAF in 1940 and became a radio operator. Later in England, he transferred to the RAF and became an ASV operator, (Early radar). In 1943 he took a discharge from the RAF and enlisted in the USAF.

At his request a military memorial service was held in Covina, CA. Bill could regale you with his WWII flying stories without telling you the same story twice. He was truly a wonderful friend and I shall miss him. —*Jim Shewmaker, KO6BL*

Special Events

Canal Days

The Tri-County Repeater Club of Ohio will operate W8YEK on 20 September to celebrate Canal Days in Delphos, Ohio. Operation will be on 7.230 and 14.230 MHz. For a QSL send inquiries to James D. Knebel, W8BHA (Trustee), 228 N. Bredeick St., Delphos, OH 45833.

Satellite Station

The Virginia Air & Space Center (VASC) Amateur Radio Group, Inc., will operate KE4ZXW, on Saturday and Sunday, 27-28 September, on both UHF/VHF and HF. For UFH/VHF satellite station operators on both days from 0-2400Z, send via KO-23 or KO-25. On HF both days from 1500-2200Z, listen at 0000 UTC on 7.265 MHz and at 0030 UTC on 14.265. This is in celebration of 2 years of uninterrupted 9600 baud automatic Satellite Station operation and management of a fine visitor-friendly Amateur Radio Exhibit. An anniversary QSL will be issued to those sending QSL and SASE to Ed Brummer, W4RTZ, 108 Oyster Cove Rd., Yorktown, VA 23692.

Station Appearance

Dave Ross KE5TN

*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.

My shack in El Paso, Texas, is pictured above. I have been a ham since high school in 1957. First licensed as K3AMV in Pennsylvania, I've operated from locations in Massachusetts, Virginia, Alaska, and finally, Texas.

The shack was configured to allow both hamming and computer work from one convenient location. Attached to the left and out of sight is a desk for general office work. The 21" computer monitor sits on the desk's right turnout while the computer running LOGic logging software, a 200MHz pentium with 128MB memory and 2GB hard disk, resides underneath. The U-shaped operating arrangement is both comfortable and flexible. When the XYL is heard coming up the hall, a quick push with the right foot rotates the operator from the radio side to the computer side creating the appearance of productivity.

A well-oiled swivel chair allows the occasionally well-oiled operator to work at the desk or on the computer while responding quickly to the elusive six-meter openings heard on the ICOM IC-706 under the lamp on the ham table. WB2AMU's excellent book on six-meter operation is very interesting and after 30 years of hamming, finally convinced me to get on six. The book, however, did nothing to improve the six-meter band conditions!

To the left of the ICOM is an Alinco DJ-580 for two meter and 440 coverage. The main rig, a Yaesu 990 with a Heath SB-1000 linear, provides HF coverage. Beside the Yaesu, a Timewave DSP-59+ audio noise filter changed one of the world's noisiest locations (next door to a large military hospital) into a useable radio site. Above the linear is a Dentron MT-3000A antenna tuner, a Heath clock, and an Ameritron antenna switch. To the left of the Yaesu is an MFJ antenna analyzer and a KAM used for packet and AMTOR.

All this hardware goes to a loaded dipole fed with ladder line for HF, a Ringo Ranger for VHF, and a cubical quad for six. To lower the site's ground impedance, the backyard is strewn with the remains of a frequently repaired MFJ-1798 HF vertical, carefully placed there in a fit of rage by an operator who shall remain nameless. WR

ALINCO DX-70

The "Take Me Along" HF + 6M Radio

DX-70T and DX-70TH

- 100 memories
- Detachable faceplate
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- Selectable RF Gain and AGC
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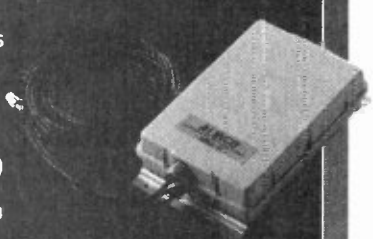
- DX-70T MSRP under $1,000

EDX-2 Auto Antenna Tuner



- Tunes 160-10 Meters (40 foot wire antenna required for 160M, 8.8 foot minimum for others)
- Fully integrated with Alinco DX-70 radios
- Weather resistant housing, can be mounted outdoors
- Comes with 16 feet of coax and control cable (cables may be extended)
- Maximum input: 200 watts
- Perfect for mobile, marine, home or portable use
- MSRP under $350

Whether you work the DX or you *are* the DX, Alinco's DX-70 is all you need, and it's ready to go at a price so low, it's hard to believe!

Perfect for use on the road, on the water, at Field Day, or at home in the shack, the DX-70 is a rugged player with great credentials. Choose the DX-70T (100 watts HF, 10 watts 6M) or the new DX-70TH (100 Watts on HF and 6M). Either way, you're on the air with a radio that's a solid performer. Plenty of "extras" are included like Alinco's exclusive multi-function control that makes operation easy, full QSK, semi or automatic CW operation, standard speech processor, narrow filter, detachable face, 100 memories, quick offset, CTCSS encoder and more.

Add Alinco's new EDX-2 Automatic Antenna Tuner and you're ready to work the HF bands with the push of a button. Before you purchase ANY HF mobile or portable radio, check out the DX-70 and the EDX-2 from Alinco.

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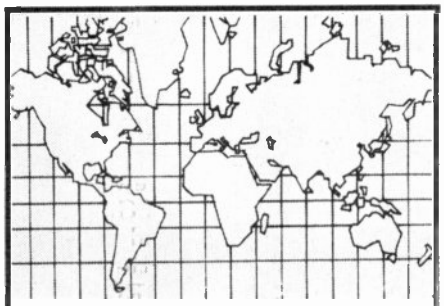


DX WORLD

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

W-100-N

Congratulations goes to the following DXer for satisfactorily completing the necessary requirements for ***Worldradio's Worked 100 Nations Award***:

521. Peter McKay, 4X/G3WQU
All CW 20 Jun 1997

Annobon Island (3CØ)

The cancelled DXpedition to Annobon Island (AF-039) has been rescheduled to 11 October. *The Daily DX* was informed by Mac Reynolds, W9EVI, that the team will arrive on the island just before sunset, and will depart during the day on 21 October.

The DXpedition team will include: Jose Gonzalez, EA4BPJ, the team leader; Josep Del Pino, EA3BT and his XYL, Nuria, EA3AOK; Enrique Arce, EA5AD; Toni Guillen, EA5GRC; Teo Munar, EA6BH; Francisco, EA6WV; Jose Orellana, EA7BJ, Julio Pena, EA7JB; Olli Rissanen, EA4BQ/OHØXX; Pekka Kolehmainen, EA6AH/OH1RY; Franz Langner, DJ9ZB, and Mac, W9EVI. The Union de Radioaficionados Espanoles (URE), the national Amateur Radio society for Spain, expects to have resolved the visa problems by the end of June. The earlier DXpedition set for 20 to 27 May was canceled as the Guinea authorities would not allow visas to eleven of the thirteen operators. Earlier reports of team members included Angel Depazos, EA1QF, Jose Becerro, EA7KN, and Paco, EA4BT.

The reports of a station signing 3CØDX earlier was a Slim.

Uganda (5X)

Mats Persson, SM7PKK, received his Uganda license on 20 June and should be on the air by now signing with 5X1Z.

Malawi (7Q)

According to *The OPDX Bulletin* Steve Baker, 7Q7SB, is presently on leave and living in Texas. He is expected to return to Malawi mid-July and will be back on the air in September or October. Steve is a missionary with a busy schedule and should remain in Malawi for another two or three years.

Taiwan (BV)

With the increased activity out of Taiwan and all those different prefixes, there is reasoning behind it. Bolon Lin, BV5AF, reports via *425 DX News* the Taiwanese prefix assignments, including the IOTA reference numbers, as follows:

BO1	Matzu Island	AS-113
BO2	Kinmem Island	AS-102
BVØ	Special Event Stations	
BV1-BV8	Taiwan	AS-020
BV9A	Penhu Islands	AS-103
BV9G	Green Island	
BV9O	Orchid Island	AS-020
BV9P	Pratas Island	AS-110

Included with the above is the IOTA references numbers. Taiwanese calls with the BM and BN are restricted class licenses (Class 4) and can operate VHF and UHF only.

Cuba (CO)

Reported often on 30 Meters has been CM6LP near 10.103 MHz, usually after 2300 UTC. Other calls reported on this band include:

CO6RD	10.109 MHz	0015 UTC
CO6XE	10.109 MHz	0245 UTC
CO8LY	10.107 MHz	0315 UTC

Forty Meters is very good band to find Cuban stations with several reported during the month of June. Some of these calls were reported only once.

CL8UK	7.006 MHz	0300 UTC
CO2DC	7.068 MHz	0600 UTC
CO2VQ	7.006 MHz	0500 UTC
CO7BC	7.012 MHz	0100 UTC
CO8ZZ	7.090 MHz	0500 UTC

These calls were reported from various locations on the *WebCluster*. Reviewing the various spots during the month, 6 Meters was also checked. At least two calls were found; CO2KG on 50.140 MHz around 1545 UTC, and CO2OJ near 50.129 MHz at 1430 UTC.

Victor, CO8HF, has been active on 20 Meters SSB. Look for this station from Santiago between 14.193 and 14.212 MHz after 2130 UTC. This band has had many other calls reported during June.

Azore Islands (CU)

Most likely most readers have already worked the Azores. Taking a look on our three new WARC bands, we have several calls reported on 17 Meters:

CU1AX	18.140 MHz	2130 UTC
CU3AAE	18.118 MHz	0030 UTC
CU5AOA	18.135 MHz	2200 UTC
CU6FP	18.143 MHz	1900 UTC

On RTTY CU3AH has been reported often. Try 14.081 to 14.087 MHz around 2200 UTC.

Twenty Meters saw several activity reports from the Azores, which included these calls:

CU1AX	14.189 MHz	0215 UTC
CU2AR	14.013 MHz	0030 UTC
CU2GY	14.182 MHz	2145 UTC
CU2YA	14.281 MHz	2100 UTC
CU3BL	14.258 MHz	2130 UTC

Balearic Islands (EA6)

Back in my early days of DXing in the 1950s I was having trouble copying the call of a station that I was working when I received a helping hand. This helping hand turned out to be an EA6 station, considered rarer than the garden variety of DX I was trying to work. From this I was able to add the EA6 to my list of countries worked. The chance of you working an EA6 this way is very unlikely, so here is a list of what was reported during June:

EA6ACG	28.503 MHz	1430 UTC
EA6AED	21.033 MHz	1500 UTC
EA6AEI	18.130 MHz	1000 UTC
EA6AEJ	28.495 MHz	1200 UTC
EA6BE	14.257 MHz	1000 UTC

Some of these calls were reported on other bands and most of them were reported more than once during the month.

Malpelo Island (HKØ)

The Colombian DXers are organizing a DXpedition to Malpelo Island, according to 425 DX News. The group is looking at 1999.

Lithuania (LY)

The call LY97XA was active from 10 to 20 July to commemorate the 300th anniversary of Vilkaviskis. There is an award (Vilkaviskis-300) for working members of the Varpas Radio Club during the period 1 July 1997 through 31 December 1997. Each member contact counts one point, while LY97XA will count two points. To qualify you must collect at least five points. A plaque will be given to the Radio Amateur collect-

ing the most points.

Applications and a fee of $5 (U.S.) can be sent anytime prior to 31 July 1998 to P.O. Box 7, Vilkaviskis 4270, Lithuania.

The following calls are valid for this award: CT1DW, DK1XT, DL1GBP, DL6GN, LX2DW, LY1DM, LY1DW, LY1DY, LY1EM, LY1FAE, LY1FAG, LY1FAK, LY1FAT, LY1FAU, LY1FAV, LY1FBG, LY1FCA, LY1XA, LY2BDT, LY2BEE, LY2BEO, LY2BGP, LY2BGW, LY2BOK, LY2BVD, LY2BVQ, LY2CQ, LY2HT, LY2KA, LY2LI, LY2NLK, LY2PAQ, LY2PU, LY2RB, LY2RF, LY3BLI, LY3ET, LY3GF, LY3GM, LY3NGZ, LY3NHD, LY3NHK, LY3NJD, LY3NMJ, LY3NNK, LY3NOY, LY3PDS, LY4AB.

Brazil (PY)

Reviewing the Brazilian reports via *WebCluster* show that many calls are spotted on the bands. Many Brazilian DXers report activity via the various clusters. After reviewing all the activity reported for this country during the month of June, I have settled to list only calls that I would consider a bit more remote or unusual:

PP8BV	14.200 MHz	1100 UTC
PT9FH	10.103 MHz	0145 UTC
PU5YVK	28.490 MHz	2100 UTC
PU7TDD	7.021 MHz	0900 UTC
PV8ONU	14.019 MHz	1400 UTC
PY8MDC	18.122 MHz	2100 UTC
PY9UXR	7.011 MHz	0230 UTC

DX News Sheet mentions a new 6-meter beacon on 50.080 MHz signing with PY1CZ. Obviously, this is a good way to check to see if the band is open to Brazil on that band.

Malyj Vysotskij Island (R1MVI)

The DXpedition to Malyj Vysotskij Island (EU-117), also referred to as just M-V Island, arrived on the island 5 June after an absence of five years. Their operating position was the same as the DXpedition of 4J1FS in 1992 where they made some 74,495 contacts.

They were reported using the call R1MVI as early as 1300 UTC on the same day. This one should be a new one to many of our newer DXers.

The call OH5AB/MVI was used and was first heard on 17 Meters near 18.069 MHz around 1700 UTC and on 3.501 on the 80 Meter band around 2300 UTC the first day of operation.

The team had some difficulties in landing on the island. The old dock on the island had been destroyed, forcing the team to use the old military stone dock on the northern edge of the island. This had created a start up delay of two to three hours.

Initially the team had generator problems, probably due to the fuel that was purchased in Vyborg. A Honda 4 kW generator was brought to the island to replace the 6 kW generator with the problems.

The DXpedition ceased all operations Monday morning at 0330 UTC, 16 June, and left in the afternoon for Vysotski, for passport, visa and customs formalities. The customs officers were concerned with the ship full of radio gear. But, with all licenses in order the ship was on its way to Vyborg, were the Russian operators left the ship and took the train to St. Petersburg. The Finnish DXers went on to Lappeenranta.

The group logged over 30,000 contacts during the nine-day operation. Six HF stations were active. An estimated 500 to 600 contacts were made on six meters. Over 300 contacts were made on 144 and 432 MHz, mostly with nearby stations. About 500 different calls were reported on RTTY

Cameroon (TJ)

Mark La Point, formerly J5UAI, is active from Yaounde in Cameroon as TJ1US. His rig consists of an Icom IC-735 with a Mosley tri-band beam, and dipoles for 40 and 80 Meters. He also has a Butternut vertical antenna. Mark operates CW, SSB and RTTY. He is employed by the U.S. Embassy and should be there for two years.

Willis Island (VK9)

As of mid-June the newest additions to the Oceania DX Group DXpedition to Willis Island this September are Dennis Utley, AF7Y; Noriko Tokura, 7K3EOP; and Vladimir Huzenka, ~~CM~~3CUU/VK2AEA. Jon Walton, VK4CY, was forced to drop out due to additional work commitments. In addition, Harry Mead, VK4DHM, was in the hospital for sixteen days and was advised by his doctor to cancel out from the team.

The DXpedition team will depart from Cairns on 09 September 1997 aboard the 60-foot *Floreat*, with the first stop at Willis Island North Islet for a period of 12 days. The operators should have six complete HF stations in operation, plus a station on six meters.

From there they will depart for Holmes Reef for an operation of about 30 hours. No IOTA reference number has been given to the reef, and should count as a new IOTA island.

The budget for the two DXpeditions was $32,400. They were able to secure the transportation at a reasonable rate, which would cost them $40,000. The group welcomes

donations, regardless of size. Please send your contributions to: ODXG Willis Effort, P.O. Box 929, Gympie, Queensland 4570, AUSTRALIA.

Macquarie Island (VKØ)

A pleasant surprise to the low band DXers was the showing of VKØGW on Macquarie Island (AN-005) around 1000 UTC 09 June on 75 meters near 3.798 looking for North American stations. West coast stations managed to work him, but evidently the east coast couldn't hear him.

Also on Macquarie Island is Tom, VKØTS. *The Daily DX* says that he reports into Jim Smith's (VK9NS) net on 14.222 MHz around 0345 UTC, Tuesdays and Wednesdays.

Macao (XX9)

Early in June Cheang, XX9AU, was quite active from Macao. He was operating 20 Meters between 14.190 and 14.218 MHz. Look for this one after 1430 UTC.

With the end of British rule in Hong Kong, this one is next to return to China, due in 1999. So work this one while you still have a chance.

IOTA

DX News Sheet notes that PP5LL will be active as PR5L from Campeche Island (SA-026) from 08 through 11 August. He will operate both CW and SSB on 10, 15, 20, 40 and 80 Meters.

The OPDX Bulletin notes that Albert, FO5JR, is planning to activate Rimatara Island (OC-050) during his Christmas holidays. He will take his TS-440 and dipoles and operate CW only on 7.010, 10.110, 14.010, 18.110, 21.010, 24910, and 28.010 MHz.

The JARL Kyoto Club celebrated the 50th anniversary of its founding and will celebrate by a DXpedition to Majuro Island (OC-029) 6 to 14 August. This will be an all band/mode operation. Listen for the calls V73AAR, V73MM, V73NH and V73YAQ.

425 DX News reports that Wolf Rebling, 9A/DL1AUJ, will be active on all bands from Rab Island (EU-136) from 28 July through 15 August. Also noted is that Peter Niksch, DL4FCH/P, will be active from Pellworm Island (EU-042) on CW only, 10 through 80 Meters, from 25 July to 15 August.

The Dateline DX Association DXpedition to the North Cook Islands is scheduled to operate 20 through 27 September from Penrhyn Atoll (OC-082).

There was a lot of IOTA activity during the month of June, and many of the islands reported are very active on the bands. Here is a selection of IOTA islands considered on the rarer side:

AF-045	Goree Island 6V1A
AS-005	Dickson Island RAØBK
AS-008	Izu Archipelago JH4FBV/1
AS-014	Arabian Sea Coast No. A45XL
AS-017	Okinawa Island 7J6CCU
AS-041	Oki Archipelago JI4SEU
AS-053	Puhket Island HSØ/IK4MRH
AS-117	Honshu Coast. Isls. JG6URG/4
EU-028	Elba Island IA5/IV3UHL
EU-030	Bornholm Island OZ8IE
EU-043	Vinga Island 7S6NL
EU-052	Ionian Islands SV8ZC
EU-054	Egadi Islands IF9/IT9AUP
EU-056	Gossen Island LA4GHA
EU-057	Ruegen Island DL5ANE/P
EU-072	Skiathos Isl. SV8/DL8MCA/P
EU-075	Poros Island SV1TP/P
EU-083	Gallinara Island IP1/IK1QBT
EU-084	Roslagen Islands SMØDRB
EU-091	Occhi Island IJ7/IK7FPX
EU-092	Summer Isles GSØEEO/P
EU-117	Malyj Vysotskij Island R1MVI0
EU-121	Clear Island EJ3HB
EU-122	Rathlin Island GI/EI7NET
EU-129	Usedom Island DL5RFF/P
EU-136	Rab Island 9A9JH
EU-148	Ft. Brescou Isl. TM5BCU/IPA
EU-149	Rammu Island ES2RW/2
EU-164	San Ciprianu Isl. TK/DL1BKK
NA-004	Endicott Island AL7R/KL7
NA-047	Baffin Island VE2PR/8
NA-059	Unalaska Island KL1SLE
NA-087	Popof Island KL1SLE
NA-173	Charleton Island W2NTJ/VE8
NA-198	Newfoundland Coastal Islands VE3NSZ/VO1
OC-137	Russell Island VK4BS
OC-166	Kallimantan Coastal Islands YC7JKS
OC-209	Talaud Island YC8TZR
OC-210	Sangihe Island YC8TXW
OC-new	Tapat Island YC8YZ/P
SA-040	Atlantico/Bolivar Divison Group 5KØC
SA-068	Atlantic Coast group 8R1AK/P

In the above list JI4SEU (AS-041) was very active in the All Asian DX Contest in June. Check your logs.

YC8YR is reported to be on a new IOTA island and was on 40 Meters SSB around 1000-1330 UTC, Monday, 9 June on 7.090 MHz and listening up on 7.178 MHz. YC8YZ/P was also to have been there for 10 days about the same time.

The June GI/EI7NET DXpedition to Rathlin Island (EU-122) by the WestNet DX Group resulted in over 5,000 contacts with almost 3,000 being made on CW.

DXCC Processing status

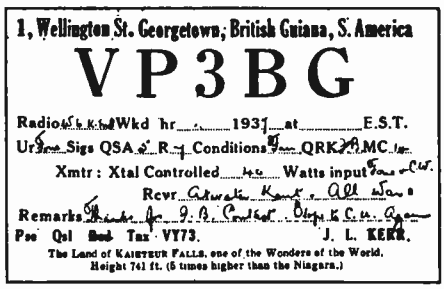
The number of unprocessed applications received at the DXCC Desk at the end of May 1997 was 350 (28,738 QSL cards). During the month 443 applications (32,928 QSL cards) were received for endorsements and new awards. This compares with 313 applications (25,423 QSL cards) for April and 322 applications (23,897 QSL cards) for March.

Applications being sent out at the end of May were received about two weeks earlier. A few applications received prior to that time were in the process of being audited, and had not yet been completed.

Antique QSL department

The following two old-time QSL cards were sent in by Jerry Faas, W6KMI, of Fresno, California. Both cards date back 60 years ago.

Jerry worked VP3BG of Georgetown, British Guiana. Operated by J.L. Kerr, the operator failed to include the day and time; he only included the year. This country is now recognized as Guyana (8R).


1, Wellington St. Georgetown, British Guiana, S. America

VP3BG

Radio ... Wkd hr ... 1937 ... at ... E.S.T.

Us ... Sigs QSA ... R ... Conditions ... QRK ... MC ...

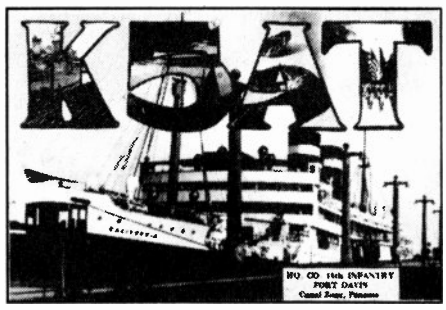
Xmtr: Xtal Controlled ... Watts input ...

Rcvr ...

Remarks ...

Pse Qsl Bud Tnx VY73. J. L. KERR.

The Land of KAIETEUR FALLS, one of the Wonders of the World. Height 741 ft. (6 times higher than the Niagara.)



The second QSL card represents a now deleted country. K5AT was the call assigned to the 14th Infantry, stationed at Fort Davis in the Canal Zone. The date of this contact was 15 September 1937, and the operator's name was Johnny H. Thomas. There was no indication as to whether the call of K5AT was his personal call or the call assigned to

DX Prediction — September 1997

Maximum usable frequency from West Coast, Central U.S. and East Coast *(courtesy of Engineering Systems Incorporated, 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.

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	*(11)*	*13	*19	*(9)*	*17
12	*(16)*	*12	*17	*(14)*	*(14)*
14	*(22)*	*15	*14	19	24
16	*(25)*	13	*(16)*	19	29
18	26	12	*(13)*	17	*32
20	25	20	24	*(13)*	*32
22	21	25	30	*(10)*	*34
24	*(18)*	*27	33	*(10)*	*28
2	16	*25	33	9	*23
4	*15	21	30	*13	*19
6	*(13)*	18	27	*(11)*	*17
8	*(12)*	15	*22	*(10)*	*15

CENTRAL USA

UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	*(15)*	*(10)*	*19	*(10)*	*15
10	*(18)*	9	*16	*(9)*	*16
12	27	*13	14	17	19
14	31	*(14)*	18	20	*26
16	31	*(13)*	*(16)*	19	*30
18	*30	*(12)*	*(13)*	17	*32
20	25	20	25	*(13)*	*32
22	21	21	30	*(10)*	*33
24	*18	20	32	*(10)*	*28
2	*16	*(16)*	29	9	*23
4	*16	*(13)*	26	*11	*19
6	16	*(11)*	22	*11	*17

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	15	*(10)*	*18	*(9)*	*16
9	*(17)*	9	16	13	*16
11	27	*13	14	*19	19
13	31	*(12)*	*(18)*	*21	*26
15	31	*(10)*	*(16)*	*20	*30
17	30	*(10)*	*(15)*	*19	*31
19	*27	*(13)*	*(21)*	16	*32
21	23	*(19)*	28	*(11)*	*31
23	*19	19	32	10	*31
1	*17	*(16)*	28	9	*25
3	*14	*(12)*	26	9	*21
5	*17	*(11)*	21	*10	*18

the base. There are over 100 Amateur Radio operators today with the name John Thomas.

The K5 prefix was assigned to the Canal Zone in those days and soon after the end of World War II the prefix was changed to KZ5.

The K6 prefix was also used for Hawaii prior to World War II. Al Miller, WE7KC, provides the K6HLP card dating back to 1934. What is unusual about this card is the operator. The young navy man in the picture is Clifton Evans, Jr., whom many will later know by the call of K6BX of Bonita, California. Clif was the creator of *CQ*'s USA-CA program and founded CHC, the Certificate Hunters Club in the 1960s. Clif became a Silent Key several years ago. Clif worked J. King Cavalsky, VE5AL, of Vancouver, also a Silent Key. Look carefully! Notice the little "e" following the "H" in Clif's call?

QSL Information

Merle Parten, K6DC, says there is an error on page 28 of the July issue (QSL Managers) listing him as the route for OX3GL. Merle says he is not the QSL manager for this station. The call OX3GL is that of a pirate station and he has been trying to inform the DX community for the last two years. Evidently, Slim has been very busy, especially on 80 and 160 Meters. Merle just hates to inform these poor souls that they have worked a pirate station.

Bob Donovan, W7CF, points out an error in a recent QSL route for UA1ZO. It should read as LA8PF and not LA8BF.

Dave Van Der Weele, WA3L, writes concerning the return of his VKØIR Heard Island QSL requests. It seems Dave sent his QSL requests and a cash donation via the QSL manager on 29 January. His original QSL cards were returned via the mail system four months later, bare and unstamped. A friend of his had a similar experience. Dave feels the mail was intercepted, but cannot understand why the cards were returned four months later.

Has anyone else had any problem in obtaining confirmation for their Heard Island contacts? It seems strange to me: if the mails were indeed intercepted, why bother to even return the cards? Sure is a strange way for a mail thief to act!

Also, Dave, could it be that your contacts could not be confirmed (not in the log)? I don't really know what you mean by "bare and unstamped." And, incidentally, a reminder to all that donations and QSL requests are not the same. A donation to the DXpedition is supposed to be returned if you were not in the log.

If you have access to the Internet a good site to check for QSL Routes for recent contest operations is: http://www.arrakis.es/~ea5eyj/. Compiled by Pascual Guardiola, EA5EYJ, the list is kept up to date.

QSL Routes

The following QSL Routes are correct to the best of my knowledge and have not been verified. The addresses given are **not** listed in my CD-ROM copy of the 1997 *Callbook*, or are different. QSL manager addresses are listed in my 1996 copy. Please report any errors:

4U1UN	—W6TER(1)	EW2CR	—NF2K
5X1Z	—SM7PKK(2)	EW35WB	—EW1WB
9G1AA	—PA3AWW(2)	EW3LB	—W3HNK
EI/G4YQW/P	—G7DKX(2)	EX2U	—1K2QPR
EI/G7UEG/P	—G7DKX(2)	EY8AM	—DF3OL
EJ3HB	—EI5GM	FG/F2HE	—F6LQJ
EM1HO	—I2PJA	FG5FR	—F6FNU
EN5US	—UR4UZA	FG5HR	—F6BUM
EO6F	—OE5EIN	FK8HC	—VK4FW
EP2MKP (40M)	—UV6HPV	FM5GU	—WA4JTK
EP2MKP (20M)	—UA6HCW	FM5WE	—W4FRU
ES2RW/2	—ES2RIQ	G8FC/VO2	—W1BFA
ES6DL	—OH2OT	GBØON	—ON4ON
EU3FT	—W3HCW	GDØPLT	—WA4JTK
EW1MM	—W3HC	GI/EI7NET	—EI6FR

GJØMEU	—ON4ON	V73YAQ	—JA3OIN
GM4DMA/V5	—GM4DMA	V85GW	—VK8GW
GM7R	—GMØNAI	VE8TA	—VE2BQB
GSØEEO/P	—G3OCA	VKØGW	—VK5GW
H27W	—5B4WN	VKØTS	—VK1AUS(2)
HB6FG	—Bureau	VK9MX	—JR4PMX
HFØPOL	—SP3FYM	VK9RH/YL	—JH4RHF
HF1GD	—SP2BIK	VP2MGG	—WB2YQH
HLØN/3	—HL1TUE	VP5/K5YG	—K5YG
HP1XBH	—AD4WU	VP5EA	—WD5N
HP1XBI	—F6AJA	VP8CTR	—DL5EBE
HP3/WT4K	—WT4K	VR6TC	—WD6GUD
HSØ/IK4MRH	—IK4DCT	VR97SAR	—VR2XRW(2)
HSØ/YU7EF	—YU6URO	VS97SAR	—VR2XRW(2)
HS9AL	—I4LCK	VU2JPS	—VK9NS
IBØ/IK6JOT	—IK6MWK	VU4NG97	—VU2BGS
IC8/IK8TWP	—IK8VRH	W2NTJ/VE8	—VE9RHS
IC8OZM	—IC8QEF	W5ODD/KP2	—W5ODD
IH9/OK5DX	—OK1CW	X5EBL	—YU1FW
II1ARI	—I1JQJ	X5SO	—YU1KN
II1R	—IK1DPA	XNØROB	—VY2ROB
IJ7/IK7EZP	—IK7EZP	XNØYY	—VY2CC
IJ7/IK7FPX	—IK7FPX	XQ1IDM	—CE1IDM
IJ7/IK7VJX	—IK7VJX	XT2DP	—WB2YQH
IL3/AC5KR	—IK3VIA	XU2A	—XW2A
IL3/I3THJ	—IK3ABY	XU2C	—7L1MFS
IP1/IK1PLD	—IK1PLD	XW1A	—JH1AJT
IP1/IK1QBT	—IK1QBT	YBØARA/9	—N2AU(5)
IP1/IK1ZOZ	—IK1ZOZ	YI9VK	—HAØHW
J3/GØTYX	—GØTYX	YJ8AA	—VK4AAR
J38AH/1	—IV3TMV	YL8M	—YL2KL
J41/8W	—SV1CIB	YM2ZW	—OK1TN
J52IM	—KB9XN	YQ2R	—Bureau
J73VE	—N4SPQ	YR7G	—YO7LKW
JT1FBW	—G3YBO	YTØX	—YU7AL
JW2PA	—LA2PA	YT7A	—YU7GMN
JW6RHA	—LA6RHA	Z21KM	—F6FNU
JW9THA	—LA9THA	Z31GX/PK	—DJØLZ
JY9QJ	—DL5MBY	Z32XA	—KM6ON
V26BA	—N2BA	Z38/OH3MIG	—OH3GZ
V31ED	—KD4YED	Z38G	—OH3GZ
V5/ZS6YG	—WØYG	ZA1M	—IK2HTW
V51CM	—WA2JUN	ZB2X	—OH2KI
V63BR	—AA4US	ZC4EE	—G4SSH
V63ME	—JG2EBN	ZD7HI	—N2AU
V73AR	—JA3OIN	ZD7WRG	—WA2JUN
V73GT	—WF5T	ZD9BV	—W4FRU
V73MM/NH	—JA3OIN	ZF2DE/ZF8	—N4BP(6)
V73NH	—JA3OIN	ZF2DN/ZF8	—KP4AM
V73NN	—W3HVN		

QSL Addresses

4J8YL —Oksana, P.O. Box 214, 370000 Bakou, Azerbaijan

A41LZ —Murthada Ahmed Sultan, P.O. Box 2837, Ruwi 112, Oman

A71EH —Saleh, P.O. Box 3958, Doha, Qatar

BV4OM —Fang Shiao, P.O. Box 200, Nantou, Taiwan

DS1BHE/F —Lee Seong-Joo, Do-Bong Gu Bang Hak 3-dong, Shin Dong Ah Apt. 17-609, Seoul, Korea

DS1BZR —Shim Jung-Seob, 390-8 Booam-dong Jongro-ku, Seoul 110-021, Korea

E21EJC —Krissada Futrakul, P.O. Box 20, Bangkok 10163, Thailand

EP2SMH —P.O. Box 17665-441, Teheran, Iran

ET3BT —Tensai Tafese, P.O. Box 6128, Addis Ababa, Ethiopia

G7DKX —D.F. Green, 6 Brick Road, Patrington, Sunk Island, Hull, Humberside HU12 0QN, England

HG5UFO —P.O. Box 17, Budapest 1456, Hungary

HL3HNC —Jin-Tai Kim, 102-402, Kukdong Apt. Munhwa 2-dong, Chung-gu, Taejon 301-132, Korea

HSØ/IK4MRH —P.O. Box 49, Puhket Island 83000, Thailand

HZ1CCA —P.O. Box 27021, Riyahd, Saudi Arabia

J48LSV —P.O. Box 46, Mytilene, GR-81100, Greece

JY5HO —P.O. Box 925287, Amman, Jordan

LA4GHA —Roger Bjorgvik, Straudavn 3, N-6420 Aukuan, Norway

LY5A —Radio Club, P.O. Box 71, 5400 Shauliai, Lithuania

OA8ADM —Larry Hultquist, Casilla 304, Iquitos, Peru

PY9UDC —Francisco Barcellos, Rua 18 de Setembro, 99, 78.400-000 Diamantina, Mato Grosso, Brazil

RN9XA —Eugene V. Bugrimov, P.O. Box 1229, Syktyvkar 167001, Russia

SM7PKK —Mats Persson, Zenithgatan 24 #5, SE-212 14 Malmoe, Sweden

TJ1HP —Philippe, P.O. Box 2311, Douala, Cameroon

TZ6TT —P.O. Box 100, Bamaco, Mali

V85HY —Hiroshi Yamada, Embassy of Japan, P.O. Box 3001, Bandar Seri Begawan, Brunei

VK1AUS —Simon Trotter, P.O. Box 2063, Kambah Village, ACT 2902, Australia

VS97KM —Terry K.M. Chen, G.P.O. Box 541, Hong Kong (4)

YC8BJK/9 —Jerry, P.O. Box 623, Biak Island 98115A, INDONESIA

NOTES:

1. This route is valid for contacts made after April 1997. All contacts made with 4U1UN prior to April 1997 should be sent via WB8FLO.

2. Address for this manager is included above.

3. This is the QSL route given over the air. The address listed last month is also good.

4. This is the route given prior to the new Chinese administration. I do not know how the new system works and this address may no longer be valid.

5. This route applies for YBØARA/9 only. Logs for YBØARA are not available. QSL requests via YBØARA are discouraged as they may not be answered for a very long time.

6. Do not use the bureau as it has been reported this manager does not keep envelopes at the 4th District QSL Bureau.

Thanks go to the following contributors for this month's column: OH2BU, VE7KC, WA3L, K3ZO, K6DC, W7CF, K8SM, Western Washington DX Club (WAØRJY), Northern Arizona DX Association (W7YS), American Radio Relay League (K5FUV), *Juliet Alpha Cluster* (JE1OMO), *WebCluster* (OH2BUA), *425 DX News* (I1JQJ,IK1GPG,IK1ADH), *DX News Letter* (DJ5AV), *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).

If you listened to the bands during the month of June you probably noticed that conditions are finally beginning to improve. Let's hope this continues. Not only do we DXers benefit, but the Amateur Radio industry as a whole will. Yes, that's right — and it has been said that this is all due to the sunspot activity. 73 de John N6JM. WR

DXpeditions approved

The ARRL DXCC Desk has received and approved documentation for the following operations:

3A/DJ7RJ, 3B8/DL6UAA, 3B8/EA3ELM, 3C5Z, 3D2UK, 3XYØ3A, 8Q7AF, 9H3VG, 9H3VH, 9H3WD, 9H3WM, 9K2/YO9HP, and 9U5T.

Also: BS7H, C5ØYL, C53HP, C93/JA6SJN, C93/JG6BKB, C93/JR6XIW, D25L, D2FIB, D68KS, ES1HR, ET3FB, HS9AL, J3X, J6/F5CCO, J75T, J77C, J77FT, J79BP, J79QA, J79RC, J79WP, PJ8DX,

Also: SØ7NY, SM5ENX/DU1, T32HA, TI/ON7ZM, TL8EJ, TN7A, TO5C, TT6FNU, TY1RY, V5/DK2WH, V5/W8UVZ, VKØIR, VK9FL, VK9PG, XT2GA, XZ1N, YV7/AH6OM, YV7/WH6DAG, Z2/SMØFIB, and ZK1JOO.

For more information, contact Bill Kennamer, K5FUV, bkennamer@arrl.org. — *tnx ARRL*

Tempus fugit

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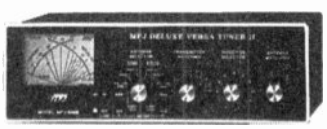

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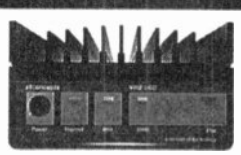

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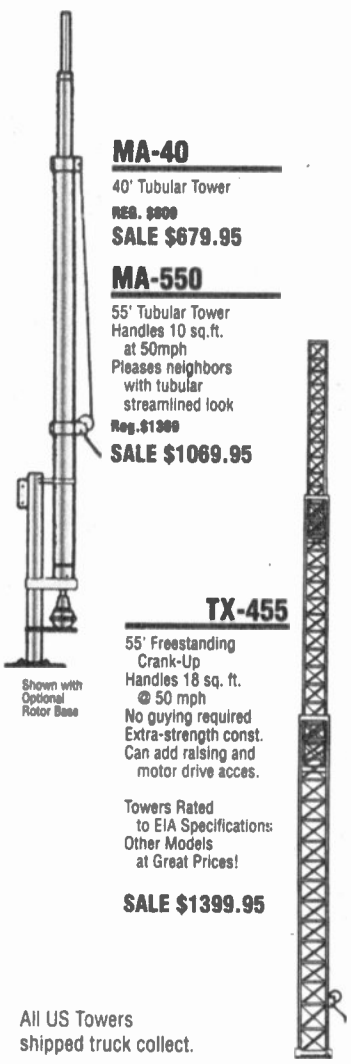

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5NØT/YL	—F2YT
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T4ØRFC	—CØ2KG
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TJ8FC	—EA4AHK
TK5BF	—F6BUM
TMØPX	—F5BZB
TMØRSE	—F6AWN
TMØVER	—F5UOV
TM1C	—F6CTT
TM2V	—F6KRC
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UA9MA	—DK8FS
UA9XFY/3	—ES4RO
UE1QQQ/1	—RA1QQ
UE1ZNF/A	—UA1ZJW
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V63KU	—JA6NL
V63KZ	—JAØBSH
V7/AL7EL	—AL7EL
V73JB	—AA8HZ
V73K	—W6TKF
V85HY	—JA1WTR
V85NM	—DF8AN
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VKØNE	—VK9NS
VKØTS	—VK1AUS
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VK9LI	—K6VNX
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VP5A	—W3HNK
VP5CK	—N9CK
VP5E	—VE1JX
VP5JM	—W3HNK
VP8CGE/ID	—WA3YVN
VP8C3D	—WA3YMN
VP9NND	—VP9KD
VQ9IE	—WY8Q
VQ9KH	—WJ5R
VQ9ØM	—W4QM
VQ9VK	—AA1OJ
VR6TY	—LA7JO
VS6CM	—WØJLC
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VU2MIT	—VU2PTT
VU2TS	—I1YRL
VU2WRT	—JA2WTR
VU7GW	—DL4MF
W1A	—K1LJN
WH2U	—KG6JHC
WH8ABB	—G4ZVJ
WP3X	—W3FG
WQ4RP	—K4HQ
WS4E	—WA4WTG
WW2END	—W7DK
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XF4CA	—XE1BEF
XK7CFD	—VE7CFD
XK7NKI	—VE7NKI
XL4VV	—VE4VV
XM2MCZ	—VE2QK
XM3QCW	—VE3CT
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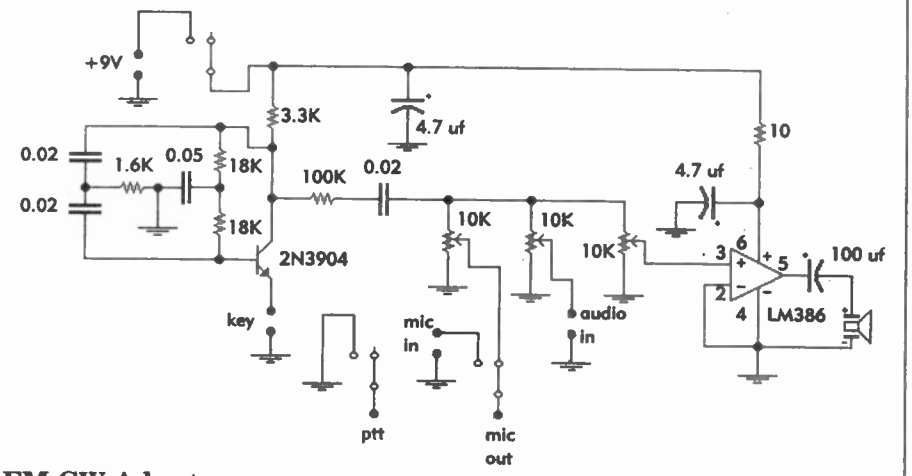
XU1YY	—JA6HOR
XU2FB	—N4JR
XU5AM	—W7AAM
XV7TH	—SK7AX
XW1BOD	—JA2BOD
XW2A	—JE2YRD
XW8AK	—JA1WTR
XX9TEL	—JH2KAG
XX9TQY	—JA1OGX
XX9TR	—OH2BH
XX9TYD	—K8PYD
XY1HT	—LA7JO
YA5MM	—K1BV
YB5OLI	—N6QLQ
YC8FI	—IKØZKK
YC8TZR	—YB8NOF
YE8P	—YB8NA
YI1FLY	—KK3S
YI1IK	—SM3DBU
YI1WMS	—N3PBX
YJØANY	—DJ3NY
YJØARW	—ZL1AMO
YLØA	—YL2GM
YL1XX	—YL3AF
YN1KDM/9	—KD4ZNB
YN4/WK60	—KB5IPQ
YS1VV	—WD4DCY
YV4GLD	—YV4YC
YV5GRV	—KP3P
Z21KM	—F6FNU
Z24S	—W3HNK
ZB2FX	—G3RFX
ZD7HI	—N2AU
ZD7JAM	—ZD7CTO
ZD7WRG	—WA2JUN
ZD8DEZ	—GØDEZ
ZD8M	—G3UOF
ZF2AH	—WA6VNR
ZF2AU	—K5RV
ZF2QM	—W6OSP
ZK1AND	—AB7FS
ZK1FR/UO	—DL7DF
ZM3K	—ZL3BNJ
ZP0V	—ZP5WYV
ZP2EHA	—DH1PAL
ZP5V	—ZP5WPV
ZP9NX	—WØSA
ZS45TWR	—ZS4Y
ZS7ANT	—ZS5UND
ZS8IR	—ZS6EZ
ZS9C	—ZS6BRH
ZS9F	—KK3S
ZSM9A	—WA3HUP
ZV8KL	—PY4KL
ZY2IB	—PY2AE
ZY8R	—PT2GTI
ZZ1K	—PY1KB
ZZ2Z	—PY2YP

Wires & Pliers



FM CW Adapter

Code practice transceiver interface

Phil Salas, AD5X

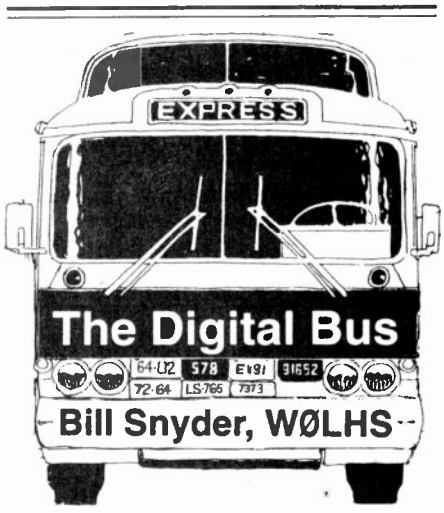
I enjoyed the article by NWØA in the May 1997 issue of ***Worldradio*** entitled "CW using your HT!" Using Joe's idea, I built a very similar version which I use as a CW interface for my keyer output into my Alinco DR-605T transceiver. Additionally, I wanted to be able to feed the output of my MFJ418 Pocket Morse Code Tutor into the transceiver. The purpose of all this was to make it easy for me to run Morse code training on our local repeater, N5EG, at Alcatel Network Systems in Richardson, Texas.

The circuit shown above is very similar to Joe's. I liked Joe's 700 Hz twin-T audio oscillator since it does give a nice sine wave output. However, I keyed it a little differently as shown in the schematic. The output of the twin-T oscillator feeds a potentiometer that interfaces with the microphone input to the transceiver, as well as the LM386 audio amplifier, allowing me to monitor my sending. I also provided an input through a separate potentiometer for the MFJ418. The MFJ418 is also monitored by the LM386 audio amplifier.

The Alinco DR-605T transceiver uses an RJ-45 microphone connector. I mounted an 8-pin RJ-45 modular terminal block along with a small circuit board with all the components and a small speaker inside a Radio Shack plastic box. The RJ-45 terminal block provides a female interface for my microphone. A RJ-45 male-to-male cable is cut in half, and the end of one resultant half is connected to the RJ-45 terminal block to provide an interface into the DR-605T. Different radios will use different interfaces, of course. I use a DPDT (double pole double throw) switch that selects either the normal microphone or the audio circuitry and enables the DR605T PTT (push to talk). A separate SPST (single pole single throw) switch turns power on and off. You can add a 9V, 3-terminal regulator if you want to run this unit directly from your station power supply.

The way to adjust this unit is to first adjust the volume of the twin-T oscillator so that you properly deviate your transmitter. Proper deviation is easy to determine by listening to your radio output on a second radio. Compare the output tones on your radio when the oscillator is keyed to the normal voice level of the repeater. Now, adjust the pot on the audio amplifier so as to give you a comfortable monitoring listening level. Finally, adjust the external audio input potentiometer (for the MFJ418 or any other external audio source) so that the monitoring volume is about the same as the internal twin-T oscillator. If your external audio source has its own level control, the external audio input potentiometer can be replaced with a fixed resistive attenuator.

That's it. You can build this easily in a few evenings. Try running a little code practice on your repeater. You'll be amazed at how many people will listen to you. WR



During World War II, I served in two different branches of the United States Army: the Engineers and the Signal Corps. All my nearly four years of active duty were in communications, first in the Amphibian Engineers — the guys who ran the landing craft that put the infantry ashore on enemy-held beaches — and then in the 58th Signal Battalion that supported the I Corps headquarters of our army. All my overseas service, nearly three years of it, was in the Southwest Pacific Theater from Australia to Japan.

In the 58th Signal Battalion I was first the radio platoon officer with 66 high-speed CW operators that manned a batch of heavy-duty traffic circuits. Because in New Guinea we had no long distance wire circuits, most everything went by radio or messenger. Then I spent a few months on the battalion operations staff, and finally, for the last year while we were in the Philippines and Japan, I was the CO of the battalion Headquarters Company in which we had a radio intercept section that monitored friendly communications for the intelligence section of Corps HQ. So, I had a lot to do with CW circuits during those years.

When I first took over the radio platoon I could copy about 25 to 30 words per minute, but only with a pencil. In the 58th we had typewriters for our operators to copy traffic on, so I learned to copy on the "mill," as the telegraphic keyboard typewriters were called in the jargon of the day. By copying press from radio station KUN, a State Department station in San Francisco, I learned to copy 35 wpm with all the International Morse Code for dollar signs, quotes, semicolons, colons, and "drop a line" symbols. When I got home from the war I tried for the ARRL 35 wpm certificate and got it the first try. That test was a breeze after spending those hours taking clear text press from KUN at 35 wpm. I thank our armed services for teaching me how to copy press on a mill.

In my June, '97 ***Worldradio*** column I told you about sending either "WO" or "WI" to query the operator on the other end of a radio circuit for his name. Because of signal security measures, the services frowned on asking for operator names or military outfits on the air. The enemy was listening and it was very easy to learn a lot about a station just by listening to such extra chatter on the air.

Even the tempo and character of an operator's "fist" could be determined just by listening to the way they sent the code. Our battalion radio operators had both straight and semi-automatic keys ("bugs") because they handled thousands of code groups a day on their circuits. All copying was done on a mill.

When our monitoring section followed small amphibious invasions to capture small islands held by the enemy, we heard a lot of operator chatter that should not have been allowed; for example, "WO" meaning "Whose operating?" I had heard the WO bit used a number of times during monitoring operations, and so in my column I was wondering about the use of either WI or WO for the query. Well, Ben Ballard, W6VJ, came through with the answer. Funny I didn't think of that myself, for my railway telegrapher father taught me the American Morse code long before I learned the International version. Here is Ben's solution to the problem:

"Sending WI for WO was common practice on our Aleutian net during WWII but I never knew why until I asked a fellow op. He was an old-timer who had worked, pre war, as a railroad brass pounder sending 'land line' Morse (not International Morse). He told me WI was the standard telegraph query to identify the op on the other end, explaining dit (short space) dit was the letter 'O' in telegraph Morse. Thus, dit dah dah dit dit translated to WO or 'who' when we used it. Carrying it over to military International Morse apparently was a tip of the hat to tradition, albeit a bit of Morse cross-pollination!"

For you operators who are not familiar with the differences in the codes, the letter "O" in American Morse as used on the sounder telegraph has a DIT DIT with a shorter space than a space between letters and "F" was DIT DAH DIT. In my father's office I used to hear his Fargo office calling the railway operator at Staples, Minnesota, by sending SO SO SO FO, and the rhythm of the DIT DIT DIT DIT DIT DIT DIT DIT DIT DIT DIT DAH DIT DIT DIT is still beating around in my head. In radio code it would sound like "S E E S E E S E E R E E."

The American Morse Code had a number of short spaced letters in its alphabet. I recall my learning days from my father. Dad would beat those letters into my head when I was a little kid and visited my father in his telegraph office on the Sundays he had to work. C, R, Y, O, were some of the differences in the two codes. There were also dashes, long dashes, and very long dashes in the telegraph code. When I switched to the International Code, I was happy about that for I did have trouble with copying T, L, and zero on the clickity-clack sounder.

BBS Stuff

Ever since I closed my two-meter BBS down after many years of having it going 24 hours a day, I have missed chatting with the friends I had made on the network. The reason I closed it down was that it was only being used as back-up for our club BBS. Its use was down to only a few personal messages, and I used an old XT computer to run the

board. When the hard drive in my BBS computer, an old Sanyo that had seen many years of daily service, kicked the bucket, I decided to give up on the BBS.

I have kept from going on the Internet because I can see that I would be swept into the wonderful world of browsing, and I can't spend too much time doing that or my ailing wife, Evie, will divorce me. Her illness has really changed the way I live, for I have had to give up a lot of things because of her condition. I had to turn down a chance to ride on the circus train from the Circus World Museum in Baraboo, Wisconsin, to the Milwaukee Circus parade and operate from the special event station that is on the air each year from the train. And for a genuine Circus fan, that's giving up a lot! So, I wouldn't dare spend an evening surfing the World Wide Web with her left alone.

When you get into the so-called golden years of the octogenarian life, one has to share problems as well as happy events. And Evie and I have been together for so many years, I'll stick with her desires. I've given up RTTY contests and a lot of other ham activities for her, so this is nothing new to me, and therefore I am foregoing browsing the wonderful World Wide Web.

When my BBS went off the air, a packet message from Greg Andracke, W2HRX, in New York arrived in our Fargo club station and was automatically returned to him with the note saying the "host was not found." Greg printed out the return message and mailed it to me by the snail express. It made interesting reading because that was the first time I ever saw such an item.

Greg is a free-lance director/cameraman who works on TV shows like 20/20, Prime Time, Turning Point, PBS, etc. His message told of how he got started in the business. He was in an Air Force film unit at Norton Air Force Base honing his skills before he went to work in the New York area. As I did a lot of "stringer" filming for the TV networks, theater newsreels, and Disney's Mickey Mouse Club Newsreel, it was fun to hear from another guy who pointed the cine camera at the world.

More war stories

Quite a while ago I wrote about making a wartime trip on a Dutch freighter from Australia to an island off the New Guinea coast called "Goodenough." I recalled the ship by name, but I apparently had it all wrong, so I welcome the correction from Harm Wijma, AC6VN, in Temecula, California.

The ship I made the trip on was called the Van Heutsz, and it was operated by Dutch officers and a Javanese crew. Harm looked the ship up in a book listing all the ships of the world and sent me a photocopy of the data which included a picture of the vessel. Unfortunately the copy about the vessel was in Dutch, but Harm translated most of the details for me in his letter.

Eavesdroppings (1988)

I'M CURLED AROUND THE LINEAR AMPLIFIER TRYING TO KEEP WARM . . . OKAY ON YOUR ROUND PLANE ANTENNA. . . . THE BAND HERE IS HALF OPEN AND HALF CLOSED, I DON'T KNOW WHICH IS THE MOST . . . I DID MY FIRST OPERATING IN THE DAYS WHEN WE HAD QUENCHED GAP SPARK TRANSMITTERS . . . WILL HOOK FOR YOU AGAIN . . . MY KEEEYBOARD HAS THEEE THREEEEEE KEEEY BLUEEES — ONEEE TAP GEEETS THREEEEEE EEES . . . WHEN I WAS A KID ONE CIGARETTE MANUFACTURER USED TO ADVERTISE "NOT A COUGH IN A CARLOAD" I'LL BET THEY WISH THEY'D NEVER SAID THAT LINE BEFORE . . . I HAVE A GOOD SPELLING CHECKER HERE AND SHE ALSO WORKS IN A BANK . . . I HAD THREE DISK CRASHES ON MY PACKET COMPUTER WHICH IS ENOUGH TO SEND ME BACK TO CW . . . WHY IS IT WHEN I HAVE TO BUY A CAPACITOR THEY ONLY COME IN PACKAGES OF FIVE?

If you want to communicate with me, try postal service: Bill Snyder, 1514 12th Street South, Fargo, ND 58103-4134. 73 and DIT DIT. WR

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E-mail only up to 50 kilobytes can also be sent to wa6itf@juno.com

When a repeater coordination group fails

It was mid-June and the message posted to the *Repeater Owner's Remailer* read in part: "Is TSARC finally dead? I've sent them several membership checks through the past years, only to not have them cashed. Either they are not a functioning coordinator, or they are trying to tell me something?"

TSARC is the acronym for the Tri State Amateur Repeater Council and over the next few days, more messages arrived. All but one seemed to confirm what the first posting had said — that in its rather turbulent existence, TSARC, which has coordinated repeaters in parts of New York, New Jersey and Connecticut for almost two decades was once again "down." Some have gone so far as to say down and out, and complain that there will now be nobody to coordinate repeaters in the region.

Anyhow, over a period of about two weeks I followed this thread as it died and was reborn and died again. Then I finally put in my own two cents and wrote: " . . . So here is some advice to all who are complaining. Don't just sit there at your keyboard issuing epistles of complaint — go out and fix the problem!"

Yes, TSARC appears to be dead — again. Coordination councils like TSARC fail for only one reason. Those doing the coordination get burned out and nobody is willing to take their place. Instead, everyone bemoans the fact that the coordination body is no longer functional; that "pirate" repeaters will proliferate that chaos which is only hours away and that big-time repeater wars will wipe all repeaters off the air.

As I read these notes, one thought kept running through my mind. A gnawing little thought that said to me over and over, " . . . why are there people wasting all their energy complaining when it could be far better channeled into revitalizing TSARC or building a replacement organization?" The answer was also quite apparent. They are apathetic.

A synonym for apathy is indifference. Those showing the indifference were the combined amateur populace of the region served by TSARC. To a man and to a woman, they seem to have decided that they would not invest their time and energy to help keep chaos from overtaking the FM and repeater subbands in the area. It's a story that is not all that difficult to piece together and it is one that will probably be replayed across the nation as more and more hams are involved in the voluntary coordination process.

Meantime, I have read several very foolish postings on the Usenet (ITF: Uselessnet?) regarding TSARC. Some even blame the ARRL for the problem and demand that the ARRL take over coordination in that geographic area! Some postings note that a current ARRL VP was one of the founders of TSARC, and he should act unilaterally and appoint new people to run the group.

With my understanding of the League, I think it is safe to say that the ARRL is NOT going to do it. They have stated numerous times — including as a vow to the coordinators that attended the St. Charles "Big Old Meeting" that formed National Frequency Coordinators Council (NFCC) — that the ARRL would never coordinate repeaters. They now have no choice but to live with that position. The active coordinators will hold them to it — forever.

Nor are you going to find any ARRL official — be it a VP or the division director — making any appointments of coordinators.

They too are bound by the ARRL's promise to not interfere in local level coordination matters. As such, there will be no "salvation" coming to TSARC-land — nor anywhere else — from the League.

Will TSARC again be the phoenix of repeater coordinators and rise from its own ashes? As this is written, the word I have is that the remnants of TSARC have not processed any incoming coordination requests or cashed any dues checks in several months. One ham associated with an adjacent area's coordination body says that TSARC did hold a re-organizational meeting last spring, but did not elaborate on what actually transpired.

He also says that the TSARC caretakers have been in contact with the NFCC as well as adjacent coordinators regarding their current state of affairs. He says that those organizations are being very supportive of those trying to pull TSARC back to life, but he adds that the "New York Attitude" of some repeater owners, angry at TSARC's apparent dissolution, hasn't helped their cause. It is the same attitude of indifference that helped top drive TSARC's predecessor — the NorthEast Repeater Association into oblivion some twenty-six years ago.

What has happened to TSARC can easily happen where you live. So, if you feel strongly that having a viable frequency coordination body active in your region is important, give it more than just lip service. That is the obligation of anyone who complains about anything: that is, if you have a complaint, what are YOU going to do to fix it? A coordination council or radio club — whether you're a part of our national society the ARRL is really you. It is you who make them or break them.

Ham jamming called "terrorism" by authorities

Indiana State Emergency service officials have dubbed a recent spate of jamming of ham radio Skywarn communications as an act of terrorism. They have asked authorities in the city of Elkhart to try to find the person or people who have been jamming emergency ham radio signals across the county.

According to an article in the March 16th issue of the *Indianapolis Star*, the Elkhart County Emergency Management Office has con-

tacted the sheriff's department and reported someone has been planting devices designed to interfere with the signals of ham radio operators, operators whom the county relies upon to provide storm spotting and other activities.

The problems began in February. Emergency services operators fear that with the tornado season approaching, the jamming could block important transmissions when a radio operator is trying to warn local emergency services of dangerous weather. That is why the State Emergency Management Agency says it considers jamming to be an act of terrorism.

The Elkhart County Sheriff's Department has opened an investigation into the jamming. No arrests have been made, and police would not comment on possible suspects. Agency officials said they will assist any way they can in the local investigation. —via KF9ZA, *Indianapolis Star)*

New VHF/UHF goodies at Hamvention '97

Tiny hand-held VHF, UHF and dual-band HTs captured the imagination of the Dayton crowd. Yaesu, Alinco and Standard debuted diminutive HTs.

Yaesu describes its new VX-1R as the "world's smallest dual-band hand-held with wide receiver coverage." It offers 500 mW output (or 1 W with external power), a rechargeable lithium ion battery, and 290 memories.

Alinco debuted its DJ-S11T economically priced, pocket-sized 2-meter HT — a companion to its DJ-S41T for 440 MHz. Pending FCC approvals, Alinco also hopes to have its "revolutionary" DJ-C1 2-meter "micro-transceiver" on the market later this year. The super-thin transceiver is only slightly larger than a credit card and about as thick as a typical pocket calculator. Both the DJ-S41T and the DJ-C1 put out about 300 mW. (A DJ-C4 for 70 cm also is in the offing.)

Standard introduced its flexible and very compact C510 dual-band hand-held that provides 1 W output by itself and up to 50W output when coupled with an optional accessory unit.

Potential buyers of full sized radio gear and the just-plain-curious also got their first look at Yaesu's new FT-920 transceiver that covers HF and six meters. The 100 W transceiver incorporates DSP features on both receive and transmit.

Kenwood rolled out its new Sky Command system that permits remote control of its TS-570 or TS-870 transceivers via two HTs and an interface box.

Drake returned to the Amateur Radio market with the TR270, a desktop two-meter FM transceiver that includes a built-in AC power supply and independent, dual-band receive capability in the 420 to 470 MHz and 136 to 174 MHz ranges. The Drake TR270 puts out 25 W. —via *The ARRL Letter*

The best repeater in town

Attention travelers along I-75 in central Georgia. A reader says to check out the KM4DT 2-meter repeater on 147.015 (+). This repeater is a privately owned repeater and is the alternate repeater for the Central Georgia Amateur Radio Club.

It is located about 3½ miles south of Warner Robins, GA, and 4 miles due east of I-75. This repeater is monitored 24 hours a day and emergency assistance is quickly given with direct contacts (via landline) to emergency services. There are NO tones to use, and the machine has great coverage.

AA4ED Repeater on the Internet

South Florida's AA4ED repeater is now connected to the Internet 24 hours a day via WebPhone software at www.netspeak.com. The group reports they have had several contacts with perfect audio from around the world.

The software has a built-in voice identifier and full access control. All hams worldwide are invited to access the repeater which currently has ninety-seven registered users worldwide.

For further information please contact the Palmetto Amateur Radio Club by e-mail at hamradio@sprintmail.com.

Internet repeater related mailing lists

Speaking about the Internet, there are several new Internet-based mailing lists dealing with repeater related matters which have been created in cyberspace. The first of these is one called the "Repeater Owners Reflector" that we mentioned at the top of this month's column. As its name implies, it discusses primarily matters of interest to hams who own and operate repeaters, or who are planning to put one up. While primarily covering technical matters, issues such as coordination are also covered.

To join in on the action, send e-mail to majordomo@clarc.org. Put nothing in the subject line. In the body of the message type <subscribe rptrown> followed by your first and last name.

The "Repeater and Controller" mail-list, and as its name implies, this is a reflector for exchanging ideas and information about any amateur or commercial repeater and/or repeater controller. If you would like to be added to the Repeater and Controller Mailing List, send an e-mail message to: <repeater-request@jerrys.rogerswave.ca.> Leave the subject line blank and in the body of the message type only the single word "subscribe" without the quotation marks. (Information provided by jerrys.rogerswave.ca)

Another entity that will interest owners of repeaters is a discussion list and remailer for S-COM's repeater controllers that is now also available on the Internet. S-COM has over 4,000 controllers in the field, and has been manufacturing them full- time since 1985. To subscribe to this list, send a message to: <majordomo@rmsd.com> from the address where you want your e-mail sent. In the body type only: subscribe scom. You will receive a confirmation message. To post a message to the list, send the message to: scom@rmsd.com (Information supplied by WA9FBO)

UK 6M Repeaters at last

Six-Meter repeaters are beginning to come on the air in Great Britain following the approval of eleven licenses by radio communications authorities. GB3AM was the first on the air. It's located near Amersham. GB3AM and GB3EF near Martlesham in Suffolk were both switched on the 1st of May. GB3AM operates on 50.840 MHz, with an input 500 kHz higher, on 51.340 MHz, while GB3EF is on 50.720 MHz with an input on 51.220 MHz. —via *GB2RS* WR

Activities?
Tell ***Worldradio*** what hams are doing in your area.
Worldradio will tell the world!

Search And Rescue Communications

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

Greetings! I've just returned from an outstanding Boy Scout camp marked by many HF and VHF contacts during our three-day sojourn in the Utah wilds. Comments from KC7AW, N7JID, KI7SL, and N7QLJ are encouraging! Scouts by the hundreds visited their Amateur Radio tent during our Scout "Big Event" and were introduced to this wonderful hobby.

In addition to the official radio tent, I taught wilderness survival and other Amateur Radio operators taught survival kits, direction finding, and ran the trading post. It's exciting to see so many licensed operators lending their time and talent in service to youth. A highlight this year was no rain, no thunder, and no lightning! It meant the HF noise floor was minimal, making this mode a delight.

I believe the best contact of the weekend was K7CRD, who was mobile just outside of Portland, Oregon. I was laughing as I envisioned this 70-year-old gent headed down the highway chatting with Scouts in Utah. He had some difficulty copying us. When I said there were 1,500 Scouts at the camp, he thought that was the size of my troop. He was impressed that anyone would be dedicated enough to go camping with that many boys in one group!

I never did get it clarified that the whole camp totaled 1,500 boys before his noise level brought our contact to an end!

A neat idea

Some years ago NU7X told me about how he used DC remotes around his house to control his radio gear. That concept never quite sunk in until just last week. Let's explore the term DC remote first, and then I'll tell you my public service application.

Transmitters work best when they're located on high terrain. In my neck of the woods, a mountain peak makes a great operating site. In other areas, tall buildings work well. To operate from such a location is great, if you happen to live there or your business is located there. Most of the time, however, you would like the coverage from a nice comfortable location at home or at work.

You have a couple of options. You could run miles of coax or control cables and either ship the signal to your great antenna site, or use a bundle of wires to send audio and push-to-talk switching to the remote site. You will quickly notice that at any distance, your transmitter power and audio signal will be much reduced.

Enter the DC remote. With a telephone-like device or a console with a speaker and microphone, the audio (microphone and speaker) are sent along with PTT signaling over a two-conductor 600-ohm wire. It's called a DC remote because the PTT happens when a DC current and audio (AC current) is piggybacked on the same wire. Major companies such as Motorola and General Electric have marketed this technology for years.

In many cases the mountain or tall-building sites are wired for telephone – conveniently a 600-ohm service. You can then buy a "dedicated line" which is simply a pair of wires from your home or business to the transmitter site. The phone company charges you a per-mile cost between the two points.

The DC remote does not send great amounts of current, so the relatively small phone lines work fine. Distance (such as many miles) also does not adversely affect signal quality. This technology also allows you to have more than one DC remote console on the same line so several points can monitor the radio traffic and share the transmitter. Police departments, businesses, aviation centers, marine relay stations, and others make great use of this technology.

One nice thing about the DC remote system is the simplicity. You simply connect the "remote" with proper polarity and you're generally ready to go. The remote units consist of a telephone handset or a microphone, a volume control for the speaker, and a push-to-talk switch. (There are some internal controls that adjust line level, but they're generally best left alone unless you're spanning many miles.)

You can hook several remotes (perhaps dozens) to a single transmitter and everyone can hear the other remotes when the transmitter is in use and everyone can hear the received audio.

Are you with me so far?

Here's what a typical system might include. A transmitter atop a building. Connected to the transmitter is a DC interface board and from that, one pair of wires connecting several desktop remotes. The remotes are typically powered from commercial AC (plugged into the wall) and take up about as much space as a telephone. They're simple to use – the only adjustments are the on/off switch and speaker audio.

I thought such a system would require intensive construction skills and a lot of specialized transmitters with the DC remote built in. I was surprised to discover that this technology is pretty common and surplus gear abounds. I found a small interface board and two telephone

style remotes in a salvage bin locally and they were just given to me.

Here's what I envision for this stuff.

The interface board connects to the microphone and speaker plugs of ANY radio. From the interface board I run one pair of wires to the two remotes. They're all 12-volt powered which means I can use them in the field. I could do the following:

- Operate net control via the vehicle radio from within a command post
- Operate net control from two locations, several hundred yards apart
- Set up a public service radio in a communication center and connect the incident commander (across the staging area) to the command channel
- Set up a complex radio (such as HF-SSB) and let a less experienced communicator operate it from a message or command center located some distance from the transmitter and antenna

Are you catching my vision? This would be the kind of setup you could put into service quickly, simply, and reliably. Someone less familiar with a complex radio (such as an incident commander or other staff person) could use the "telephone" (the DC remote) to talk to field units. With a spool of wire, you could just about locate the remote anywhere you could run the wire! If you needed a set in the command center and one in the operations ready room, you just hook in another remote.

I know someone out there has done this and is perhaps using this for their communications support of emergency agencies. Why didn't you share this neat idea with the rest of us? If anyone has a source of DC transmitter interfaces or remotes, or even has some easy-to-build plans, please let me know and I'll spread the word in a future column. The ones I got have a "Vega" manufacturer name but no address. They're the only ones I've ever seen, so I can't help you with any giant stockpiles.

I believe this technology has great application for many events and wish I'd known interface boards were available for any transmitter. There are times when you need to get someone connected to the radio system and they cannot leave their operating station. You cannot give them a portable because it doesn't quite reach the field units, and you don't have extra radios and enough cable to put radios on the person's desk. This has some significant public service application. What do you think?

Some other ideas

During a recent exercise, W7LFI gave me some great ideas for field operation. A 12-volt muffin fan (or several of them) can provide air flow inside a stuffy trailer, tent, or other operating location. They don't draw much current, are quiet, and can be found at most computer or radio swap meets.

When he coils his grab-and-go feedline he labels each with the length and connects the ends with a barrel connector. He can quickly locate a 100-foot or 25-foot length of coax and it can be hooked in quickly because the barrel connector is there with the coax. The ends are also protected (they don't get smashed) when you toss them into your vehicle or when they get stepped on.

Another idea he shared was putting fuses on parallel battery supplies. He had a couple of gel cells connected in parallel for field use. Each of the gel cells had a fuse into the common positive line for current regulation or battery isolation. For example, you could remove one of the fuses and know when half your battery capacity is gone. When one battery gets low, simply put in the fuse and take the other one out.

It gives you better indication than just hoping the cells last until the event is over.

Another perspective

Bob Myers, WB9YWR, took me to task concerning the standard ITU phonetic alphabet. He writes that Amateur Radio operators in his area primarily work with local law enforcement who use a different phonetic alphabet. Many police agencies do use something other than the ITU standard and it dates back many years.

Bob correctly points out that use, in his area, of the ITU phonetics would cause unnecessary confusion, and he's correct. I continue to encourage the ITU phonetics and many agencies nationwide have also made this their standard. However, if you work with an agency that uses something else, that's what you should use.

I would encourage the ITU standard whenever possible as they are more commonly understood, especially in HF nets. Don't be surprised, however, if agencies adopt the ITU standard as they move into incident command agreements that cover many agencies and jurisdictions. It is becoming the standard.

Bob also recommends you have the local 10-code list handy so you don't have to ask for plain language repeats. This too is a good idea. Many agencies cling to the 10-code and it differs from place to place. In the Salt Lake area I know of three different 10-codes in use by various agencies. It's a good argument for plain language, but it's tough for an agency to change what's been comfortable for many years.

Thanks for the comments. Until next month, best wishes from Salt Lake City. WR

County Hunter

Ace Jansen, N3AHA
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Ashburn, VA 20147
E-mail : sjansen@aol.com

Internet

Remember the Memorex TV commercial a few years ago? It went something like this . . . a woman is singing and her high pitched voice shatters a glass . . . now, was it her real voice or was it a tape recording using Memorex audio tapes (live or Memorex)?

I find myself asking similar questions related to our hobby. Is this ham radio or the Internet? I'm not sure anymore. I used to think our hobby meant communication using wireless equipment, i.e., using radio waves. Now, it seems a lot of hams are meeting on the Internet and communicating using computer-computer technology, i.e., wires. I met an amateur at my work and he told me he uses the Internet to have voice conversations with other amateurs. Is it me, or do you also think this is like sleeping with the enemy? There are more Amateur Radio world-wide web pages than there are Amateur Radio clubs, Amateur Radio nets or maybe discrete Amateur Radio frequencies. Will there eventually be awards for contacting all states, counties, countries, etc., via the Internet, say maybe the WAC (WWW Awards Club)?

I am not complaining mind you. I'm just an observer, merely passing on observations. Fortunately, not being very active on the County Hunters Nets lately, I find I can keep current on the county hunter issues by using the Internet. All this, to introduce my topic this month . . . what are county hunters talking about (actually typing about) on the Internet?

The County Hunters web page

If you're looking for information about county hunting, a good place to start is the web site (http://www.delve.com/ch). But the best part about the web site is the forum, a place for experienced county hunters to debate hot topics (using computers and wires). There are a plethora of topics discussed on a monthly basis, and I've gathered a sampling of them to whet your appetite for more.

County Definition Task Force

The ARRL DXCC Award for contacting 100 countries is by far the most popular Amateur Radio award. There is a constant dialogue about what ARRL should count as a country. Rules for what constitutes a country have changed over the years and countries have been added and deleted from the ARRL Countries list. On the other hand, *CQ Magazine*'s definition of counties for the USA-CA has been fairly consistent until recently, when the award chairman decided to disallow contacts with independent cities and national parks. Once upon a time, contacts with independent cities and national parks would count for one of the adjacent counties.

Ed Sleight, K4SB, wrote a draft proposal to take to the MARAC National Convention in Orlando, Florida, in July. His focus was to detach the award rules association from *CQ Magazine's* USA-CA Award and the MARAC (mobile Amateur Radio awards club) USA Award; both awards recognize amateur contacts with all US counties. Ed's premise is that MARAC's board of directors should represent its members' desires concerning county definitions and not blindly follow *CQ Magazine*'s rules without a vote of the MARAC members. His motion is to make MARAC totally independent from *CQ* and their rules.

While *CQ* decided to disallow confirmed contacts with independent cities and national parks, Ed proposes that MARAC allow those contacts, when the independent city is within the territorial boundaries of the county. He also recommends that the District of Columbia be counted as a county, i.e., county #3,077. Ed also recommends that a national park within a county's territorial boundary be allowed as a county.

Dave Weitzel, KFØLZ, also gave an opinion on the subject and called for a county definition task force. He alerted web readers to recent changes and proposed changes. Massachusetts is seriously considering eliminating counties. Kansas already has eliminated one; merging Wyandotte county with Kansas City. He called attention to Alaska, where there are three counties and 8 boroughs. Dave also believed the District of Columbia should count as a county.

Dave Manescu, W6CCM, the originator of the Bingo award (Master County Hunter award) proposed changes to his rules as well. He believes independent cities should be counted for the bingo award. Carson City, Nevada, under the original *CQ Magazine* rules was good for either Storey, Douglas, Lyon or Washoe county (adjacent counties to Carson City). Under Dave's proposed rule change, he would require 2 contacts with different stations in the independent city in order to take credit for an adjacent county. In order to claim credit for Storey, Douglas, Lyon and Washoe, Dave would require 8 contacts with different Carson City amateurs. Dave is also dropping county credit for contacts with club calls. Many board of directors members would use MARAC's club call, WBØDPD, to help those pursuing the Bingo award.

Mobile CW

Ed Corey, K7OC, asked the county hunter forum for constructive ideas for stabilizing a key to make mobile CW easier. Most of the comments actually revolved around the type of keyer with many of the responders recommending against using the Bencher paddle. The problem is the paddles get pulled out of their spring loaded settings and then you have to pull the paddle to get it back in place (I use a Bencher and it happens to me too). This could happen in a base installation as well, but it's more likely in a car when you are trying to hit the paddles while the paddles and you are moving.

Some suggestions: 1) N4CD uses a Schurr mobile paddle mounted on a 2x7 board that he puts under his right leg, the paddle is more than a $100, but it's only about 2 ounces versus a very bulky Bencher; 2) W4HMV recommended a Kent paddle (made in the UK) which is built by kit and is strong as a "battleship" 3) K2NJ recommended using Brown Brothers paddles (which are hard to come by since the company is out of business); and, 4) someone recommended WØUBT as a source of a great installation, but no details were given.

Mobile amps

There was a short round table discussion about operating mobile amplifiers. Most of the comments focused on the amplifier type or using the appropriate gauge wire. Bill Bickley, KF2ON, has used an Ameritron amplifier for years and recommends hefty wiring between the battery and the amp to manage the high current. Ed Corey, K7OC, uses a Metron amp and has a battery isolator circuit and a second battery and he uses #1 welding cable.

Don McMinds, K7DM, also uses a Metron amp but uses #8 wire direct from the battery. He uses an RV solenoid to turn the power on and off and a rocker switch installed on his dashboard. Unfortunately, most mobile HF antennas are not rated for use with an amplifier.

Roger Purdy, W2NWL, recommended using Barry Boothe's, W9UCW, antennas. He runs an Ameritron AL-80A and has not had any problems, but he does say you have to be sure the tip is not extended into the coil.

County Hunter Dot Com

I did mention there's a ton of Amateur Radio related web sites on the Internet, didn't I? Well, now there's a second county hunter web site, http://www.countyhunter.com (pronounced county hunter dot com) maintained by Dennis Hall, KK7X. County Hunter Dot Com's home page says it is sponsored by the Association for Responsible County Hunting and King Kong Publishing (makes you think you better be responsible or they send the 500 pound gorillas after you). What's here primarily are 17 county hunter operating tips, penned by Mitch Clemons, W4RKV. Topics range from using Mobile Reply Cards (to confirm multiple mobile county contacts on one card) to using net relays appropriately to repeating your county often.

Also on countyhunter.com is Amateur Radio classified, a mechanism to help amateurs off load their "junk" so they can buy more "junk." Are you looking for specific "junk?" Then use the Amateur Radio classifieds search form to help you find a specific item. There's a hot list to other Amateur Radio web sites, including KK7X's home page.

MARAC info packet

If you're not able to get to the Internet and would like county hunter information, a great packet is available from the Mobile Amateur Radio Awards Club (MARAC). Send a self addressed stamped envelope with two stamps to Don Simmons, N5XG, 5709 Azteca Drive, Ft. Worth, TX 76112-3021.

USA-CA Holders

Congratulations to the latest recipients of *CQ Magazine*'s USA- CA award for contacting all 3,076 counties.

921 NØDPF 3/19/97
922 W6TPC 3/19/97
923 AA7AM 4/11/97
924 W2NWL 5/11/97
925 N1HHW 5/15/97

Murfreesboro 1997

MARAC's Southeastern mini-convention, held every November in Murfreesboro, Tennessee, is scheduled for November 13th-15th at the Holiday Inn. This is one of the most heavily attended MARAC conventions. The registration fee is $12 OM/YL or $9 single. The Saturday night buffet dinner is $16 per person including 2 meats, vegetables, salad, dessert, and drink. The room rates at the Holiday Inn are $55 per night, plus tax. If you are interested in registering or getting additional information, write Bill Bell, 99 Smoke Rise Circle, Manchester, TN 38355, call 615-728-7379, or e-mail km4wbill@hub.infoave.net.

County name origin

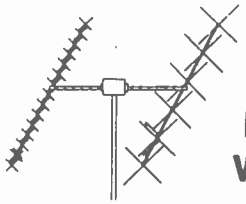
From *The American Counties*, by Joseph Nathan Kane. Everyone has heard of Custer's last stand, right? Well, for taking it, Custer got a county named after him in six states. George Armstrong Custer (1839-1876) graduated from the US Military Academy in 1851; Second Lieutenant at Battle of Bull Run; Lt. Colonel for Yellow Tavern, 1864; Colonel for Winchester, 1864; Brigadier General, 1865; led campaign against Cheyenne Indians in 1868; sent to Dakota Territory in 1873; killed with entire command at Little Big Horn, June 25, 1876. Custer counties in Colorado, Idaho, Montana, Nebraska, and Oklahoma were established in 1876 after The Stand. Only Custer county, South Dakota was named for him prior to The Stand, Jan 11, 1875.

Je suis fini!

Hey, it's been fun, but it's time to run! Now if I could only run some counties and get a little more active...I have the summer doldrums right now! Until November, happy hunting! 73, Ace, N3 aha! WR

Send your pictures & story to us at
Worldradio
2120 28th St.
Sacramento, CA 95818

Amateur Satellites



Terry Douds, WB8CKI

344 E. Fifth Ave., Lancaster, OH 43130
e-mail: wb8cki@amsat.org

Hello everyone! It's getting rather exciting as we get ready for the launch of the Phase 3D Satellite. As of my deadline for this column, the European Space Agency (ESA) is saying that September 30th will be the launch date — however, stay tuned to your local news services (the AMSAT News Service via the Internet or Packet, or *Newsline* on your local repeater) in case they have another delay. They have been announcing their delays about 30 days prior to the scheduled launch date, so there is still a chance it may be set back. On the other hand, this may be it!

As far as integration of the various pieces of RF equipment into the body of the satellite, it has been going quite well. Some additional and final tweaking has been being done by the construction team over the past few weeks, as final testing "on the bench" is being finished. Another very interesting tidbit of trivia crossed my desk the other day, which was an article in the August 97 issue of *QST* detailing the design and construction of the P3D shipping container (in which the bird will travel to French Guiana) — it was designed and constructed by a team of Boy Scouts under the direction of an Eagle Scout candidate, who just happens to also be a ham! Check it out if you happen to see a copy (it's probably on a table underneath your current copy of ***Worldradio*** . . .).

There have been more problems than we have space for this month concerning MIR. Every time something seems better, another catastrophe occurs (and thankfully is averted). First the docking problem with the Progress Supply Ship (carrying a load of trash from MIR at the time) causes major damage to the Spektr module of the space station. The crew was successful in averting that potentially catastrophic situation! Unfortunately, the Spektr module supplied over half the total power to the space station, and because it's panels were damaged in the collision, the ship was placed in a "darkened" state, with only life support systems and communications still powered.

Just following that information came news that the attitude control systems that allow the solar panels to be aimed at the sun at all times had shut down. This caused the ship to basically run out of power. A new Progress supply ship just arrived with repair parts that are badly needed to try and get the ship back into one functional piece. Even with the problems, astronaut Mike Foale, KB5UAC, has been keeping the world's amateur population abreast of the dangerous situation by using the 2-meter rig on board. Via both voice contacts and the packet BBS, he has been assuring those he has spoken with that things are progressing in a positive manner! This is allowing hams around the world a closer look at something normally only reported via the major news services. We will be watching and praying as the drama unfolds...

While all of this very important (and life dependent) scenario was unfolding, amateurs around the world were offering up a volley of fisticuffs concerning the operating frequencies used upon MIR. KB5UAC felt that the split frequency operation currently listed caused him great problems, especially hearing when he was over the United States — there are something like 137 repeater systems with outputs in the US on either 145.19/.20/.21, and this made it difficult at best for him to hear uplinking hams (uplink on 145.200/ downlink from MIR on 145.800). He decided to utilize 145.985 as an operating frequency on simplex. European hams went wild! Many, especially the Germans (as represented by DARC, their version of the ARRL), made it known firmly that this move in frequency was not

one that would be tolerated by them — that at past AMSAT meetings (in conjunction with the IARU) the split frequency operation had been "authorized," and that US hams should not have the final say in moving of the frequency of the space station. Needless to say, the heated content of the e-mail barrage grew quite hot, and Mike agreed to move back to the split frequency operation — but he reserved the right (and is utilizing it when he has time) to operate OVER THE UNITED STATES on 145.985 simplex, and use the split elsewhere. Consequently, if you are looking to listen to him or work him on a pass, listen in both places, because either one could be the "correct" one!

As I reported in my last column, RS-16 is now in orbit, but unfortunately, the transponders have still not been activated. The beacons on both 10 Meters (29.409 MHz) and 435 MHz (435.504 MHz) have been activated and are sending strong signals to Earth. When the transponders are finally activated, the frequency layout is as follows:

Uplink = 145.915 - 145.948 MHz
Downlink = 29.415 - 29.448 MHz
Beacons = 29.408 , 29.451 MHz
Power: 29 MHz Down = 1.2 W/4 W
Beacon 1 = 435.504 MHz
Beacon 2 = 435.548 MHz
Power: 435 MHz Beacons = 1.6 W

We all look forward to operating on this new Mode A bird in the near future.

RS-10 has apparently shut down, and the control operators in Russia are looking for any SWL reports as to the last few passes when it was active. If you happened to have noted when you last heard the bird active, please send the information concerning the date and time of the reception to Andy, RS3A, via packet radio at the following address: RK3KPK@RA3KP.MSK.RUS.EU

The 15th AMSAT-NA Space Symposium and annual meeting will be held on October 17, 18 and 19, 1997 at the Delta Toronto Airport Hotel (see below) in the city of Toronto, Ontario. This year's event will feature a wide range of activities, including forums, displays, and demonstration stations. Twenty five presentations will be made over two days including: The latest status on phase 3D — direct from the design team; ground station architecture, both fixed and portable; Future amateur satellite and orbit proposals; Amateur Radio on the International space station; and software designs for station and satellite control.

For online registration, use the links from the AMSAT Home Page (www.amsat.org), or go direct to <http://www.worldchat.com/public/bpark/amsat/mailto.htm>. Registration costs US$25 if made before September 15, and US$30 ($42 Canadian) after. For general information on the meetings, please contact: Robin, VE3FRH, via e-mail at ve3frh@amsat.org

The convention site will be the Delta Hotel, 801 Dixon Road, Toronto, Ontario, Canada. Special Hotel rates for meeting: $96 Canadian + local taxes = approximately US$73 + taxes (standard room for 1 or 2 people / night). To contact the hotel, call USA 1-800/877-1133, Canada 1-800/268-1133, Ontario & Quebec 1-800/668-1444 or fax 416/675-4022.

I am planning on attending the annual meeting this year, and I would encourage all of you who are in the Midwest especially to think about it as well. Toronto isn't far for most of us, even by car, and it is a wonderful city, with culture abounding and lots of great shopping (for your YL/XYL if you aren't a shop-a-holic like me !) plus, your US dollars will go farther up there. It will be a great time!

I am rapidly running out of space for this issue, so I will say so long until the next time, and hopefully that column will be full of great excitement concerning the upcoming launch of P3D! Have fun and hope to see you soon on the birds! **WR**

A *fine* news story

Congratulations to the Mon Valley CW ARC, for a fine news story and photographs in the Pittsburgh *Post-Gazette* in June. The club is located in the North Huntingdon, Pennsylvania area.

The story and photographs appeared in advance of Field Day, and the non-ham reporter did a good job of explaining Amateur Radio to the readers, thanks to information provided by club vice president, Grant Tempest, N3RMO. *—via David van Der Weele, WA3L*

Visit Your Local RADIO CLUB

For information on how to get your club listed in "Visit Your Local Radio Club," plus receive many other benefits, write to:
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. 9/97

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

Golden Empire Amateur Radio Society, (VEC). P.O. Box 508, Chico, CA 95927. Club call W6RHC, rptr. 146.85(-). Meets: 3rd Fri./monthly, 8 p.m. at 1528 Esplanade, Rm. 101, Chico. 9/97

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 Virginia Beach Amateur Radio Club of Virginia Beach, 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

Shasta Cascade Amateur Radio Society, (SCARS). 2124 Airstrip Rd., Redding, CA 96003. Meets: 3rd Wed./monthly, 7 p.m. at the C.D.F. Conf. Rm. Grape St., near Parkview Ave., Redding, CA. Net 146.64, Wed., 8 p.m. 9/97

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. 10/97

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). P.O. Box 73, Willits, CA 95490. Meets 4th Mon./monthly, 7 p.m., Brooktrails Fire Dept. (northwest of Willits). Talk-in: 145.13(-), PL 103.5. 9/97

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

Gulf Coast ARC. P.O. Box 595, New Port Richey, FL 34656. Meets 4th Mon./monthly, 7:30 p.m., 3852 Prime Place, New Port Richey. WA4GDN rptrs. 146.67(-) & 145.33(-), serving all of Pasco County. 9/97

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

Port St. Lucie ARA. Meets 1st Fri./monthly, 7:30 p.m., St. Andrews Church, Prima Vista Blvd., Port St. Lucie, FL. Contact: Roy Cox, KT4PA, (561) 340-4319. Call in 146.955(-). 9/97

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

LOUISIANA

Baton Rouge ARC. Meets last Tue./monthly, 7 p.m., Catholic HS cafeteria, 855 Hearthstone Dr., Baton Rouge, LA. Info: Norma Ramey, WD5GFD, (504) 654-6087. Club rptr. 146.79(-). 9/97

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

Eastern Michigan Amateur Radio Club, (EMARC). Meets 1st Tue./monthly, 8:30 p.m., Woodland Developmental Cntr., Kimball Township (Range @ Smiths Creek Rd.). Contact Frank Forsyth, N8XTO, (810) 987-3540. Talk-in: 147.30(+). 9/97

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

The Radio Club of J.H.S. 22, N.Y.C., Inc. WB2JKJ. P.O. Box 1052, New York, NY 10002. 24-hr. hotline: (516) 674-4072. Fax: (516) 674-9600. Non-profit org. using Ham Radio to enhance the education of youngsters, nationwide. Join us — "Classroom Net," 7.238 MHz, 7 a.m. E.S.T. PSE QSL! 9/97

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

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

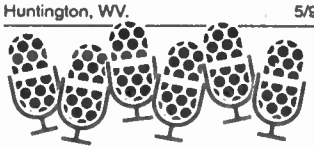
WASHINGTON

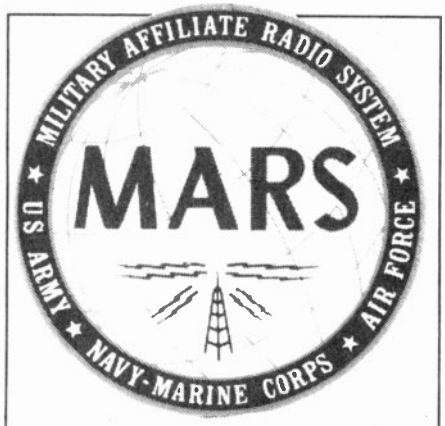
The Mike & Key Amateur Radio Club. Meets 3rd Sat./monthly, 10 a.m., Salvation Army Renton HQ., 720 Tobin St., Renton, WA. Talk-in on 146.82(-) rptr. Doors open at 9:30 a.m. 5/98

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





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

Western Area Army MARS members were saddened to hear that Bill Freiday/AAMØTD/AARØGO/WA7JAM, lost his battle with cancer at Madigan Army Medical Center. Western Area members have known Bill both as a general MARS member and as the Training Director for Western Area. Most Western Area members would say, "His precision and knowledge of Army MARS practices and protocols kept many of us in line and gave us the experience of becoming truly professional in all of our operations."

Chuck Verdon, Chief HF/MARS Gateway Station at Fort Lewis, spoke these words at Bill's memorial service:

"Bill Freiday was a good friend as well as a fellow ham and MARS member.

"Bill put his heart and soul into everything he did — Ham Radio operation, MARS and the training thereof, NRA and a firearms trainer. No matter what the task, Bill was up to it. He was honest with a good sense of humor. He would often visit the HF/MARS site at Fort Lewis and never missed the Thursday afternoon lunch bunch with his friends and fellow MARS members."

Bill served with distinction with both the Army and the Navy. He served during World War II with the 70th Infantry Division (Trailblazers) and was discharged in 1946, a highly decorated veteran. The decorations included the Purple Heart for wounds received in action. Upon discharge, he completed his Doctor of Optometry degree. He later accepted the position of optometrist with the Department of the Navy at Bremerton, WA, where he met his wife-to-be, Beverly.

Bill accepted a commission in the Army and served as an optometrist in Germany and the United States until his retirement in 1976.

Chuck ended his memorial eulogy, saying, "In closing, we all shared something in one way or another with Bill — MARS, Amateur Radio, his vast knowledge and the support he offered. Thanks, Bill, for all that you have given to me and to people like me. I'll never forget you and I hope to pass onto the next person what you have started to teach me. May God bless you. 73, my friend."

"He was the trainer's trainer, always there to assist..."

Chief Army MARS Bob Sutton, who knew Bill Freiday as a friend, gave this remembrance:

"Many Silent Keys such as Bill Freiday will live on within our memories.

"Bill was such an individual. He was fully dedicated to Army MARS with the focus on training. I had the privilege of not just knowing Bill, but of having the opportunity of learning from him many important aspects of MARS.

"He was the trainer's trainer, always there to assist when needed to improve training within Washington State. His vast knowledge has been passed on to many MARS members and I consider myself fortunate and privileged to be just one of them."

From all of us to you, Bill — Godspeed.

MARS shines at KC hamfest

By Charles Jones, AAV7AU

"On May 3, in Kansas City, Missouri, 15 members of the 'KCMARS Group' sponsored a MARS table at the PHD Hamfest with total success. Two or three members, including AAA7MO, AAA7KS, and NNNØGBB took turns staying at the table as all times to answer questions for 8 hours."

An estimated 4,000 people attended the Hamfest with about 200 of them stopping by the MARS table. 22 Army MARS members, five Navy/Marine Corps MARS members and 16 Air Force MARS members signed in at the table.

The MARS table was a joint tri-service offering as is the KCMARS Group itself. The KCMARS Group is an informal group of MARS members in the Greater Kansas City area (both Missouri and Kansas) open to all services. The group has been in existence for about 3 years and it meets for a Saturday breakfast once a month. On the local level, the rapport and friendly cooperation among the service MARS members, as a result, is strong. The MARS table effort is an excellent example.

"Posters and materials provided by AAA9PR helped make us look Proud-Professional-Ready, along with local information and handouts. We estimate about 200 hams stopped by to visit one-on-one and inquire about MARS, and several left very impressed with an application and some information in hand. One ham filled out and submitted an application on the spot."

"Perhaps the greatest benefit, besides recruiting for MARS, was the fellowship with continuous conversations and joyful greetings among many of our old and new friends."

On the emergency front for Army MARS, there was support given in many states with the exceptionally

heavy floods throughout the northern tier of states all across the country. There were tornadoes in the mid-west and the southeast as well as Washington and Oregon on the Pacific Coast, with many other events — all supported by Army MARS members. In one of the After-Action reports, it was stated that one of the Alternate Net Control Stations was a ham of only three months' experience. As the reporter, Oletta Spears, AAAØOR, (State MARS Director of Oregon), stated, "Talk about baptism by fire." This particular report from Oregon represented a fine cooperation between the MARS and ARES groups supporting the emergency and other potential emergencies at the time.

With the issuance of the new operating documents for Army MARS, several states have held emergency exercises in order to become fully practiced in the use of the new protocols of operation. One such exercise in Oregon was developed around massive fires such as those that devastate the Western states too often. One key element in the EEI Report filed by Barbra Dahl, AARØJN, was the need for radio communications. Army MARS members are very often asked why the insistence on the continued use of radio as the basic communications tool. Barbra has met that challenge in her report stating that telephone, especially cellular, suffered overloads and outages, thus making radio communication essential to meet the needs of the effected area. This has happened in a great many emergencies and will continue to occur. High tech tools are great, so long as they remain available. Very often they succumb to their own ease of use and become completely jammed.

Radio has the added advantage that many people can communicate in networks and can receive key information simultaneously. No other communications medium has that capability. If there are twenty people involved, twenty separate calls must be made to give them identical information that all could have received simultaneously by radio. Radio is far from dead in terms of need — HF for long haul support and VHF/UHF for local or linked support.

Army MARS is headed for the 21st Century with all new documents for guidance.

Army MARS will go forward — proud, professional, and ready. 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!***

Revealing phonetics

Harold Balyoz, W6YBP

Back in the 1970s when I lived in Encino and worked at UCLA, my favorite two-meter repeater was the old W6ABJ machine. There were the most funny and interesting hams there you can imagine. My great pal on that machine was Al, K6RFU, who preferred to be called "Roofoo," which was the pronunciation of his call letters. He was the one who gave me the phonics that really stuck for my call, W6YBP: "Your Best Pal."

When we began having monthly luncheons in good restaurants all over the L. A. area, he took me to the first one and introduced me to all the gang.

During one of the luncheons, one of the hams brought three or four bottles with professionally printed labels on them and passed them around. Everyone roared with laughter as he read the label. I could hardly wait to see one. Finally, one came to me. It was labeled, "20 dB Antenna Paint." The instruction said something like, "Use this product to paint your antennas and get 20 dB gain!" Of course I laughed and passed it on.

A couple of days later, I heard the same ham on the "ABJ" machine who had brought the bottles and decided to kid him a little.

I said, "Hey, old man, I tried your 20 dB antenna paint on my antenna and only got 17 dB, what shall I do?" His reply was instantaneous, "See your psychiatrist for the other 3 dB!"

Your Best Pal, W6YBP

Traffic

Geri Sweeney, N4GHI

Upcoming traffic

Some special event stations that we can expect to hear soon:

- CNE (Canadian National Exposition), Toronto, ON
- Ohio Heritage Festival (K8BAS)

Traffic handling future:

It was mentioned in the last column that the shelf life of traffic handling may be approaching its expiration date. As with the Post Office, e-mail is taking a large share of the market.

Fred Adsit, NY2V, sent me e-mail to say he didn't think so. Fred reminds us that traffic handling is an integral part of emergency services and states that "we continue to have no shortage of demands for our ARES/RACES as well as CAP and Red Cross communications support for some serious stuff, like the periodic Syracuse International Airport plane-crash drill we just had recently. New people are constantly involved in the various volunteer fire departments and EMT crews, leaving the hams, interestingly, among the most experienced of all. I do not see the day coming, certainly not in what hopefully remains of my lifetime, when hams can be written off by a system which relies on communications networks which are not designed for severe tactical or formal traffic overloads. To design them that way is not economical. To rely on them can be catastrophically unwise."

That's true, but I wonder how many Section Emergency Coordinators and Emergency Coordinators know where to find a traffic handler and/or net? My Section experience is that many traffic handlers become involved in being ECs, but, ECs rarely become interested in passing traffic, or even checking into a traffic net. Our SEC says he "doesn't have the time." One-way streets don't enable the system.

Fred agrees with the recent Area Chairs' decision to not count traffic sent on e-mail. As he says, "How could it be otherwise?" On a technical level, yes. On a psychological level, consider two messages typed into a computer and a key pushed to "send" it away. In one instance a modem establishes a phone link and sends it to an e-mail address. In the other, a modem established contact with a PBBS, or HF station somewhere. Psychologically, they sure seem close to being the same thing. I believe, to some of us, the satisfaction of traffic handling is using the radio more — not less. The enjoyment is in meeting other traffic handlers, live, on the air. After a few encounters, the other traffic handlers become personalities — real people. You know who has a wonderful fist and who you would prefer to avoid. You know who keeps cows on a farm, who has had heart surgery, who plays what instrument, who is retired and who works where. All this comes about slowly, contact after contact. It's like reading a good book about real people who are engaging. Perhaps folks who send traffic away on HF PACTOR and AMTOR do the same; but surely the contacts are more limited. One evening of working the Virginia Section, Fourth Region, and Eastern Area Nets results in numerous engaging contacts.

Fred makes the point that they are not separate worlds. He says that most of the folks who use digital modes are "regulars" in the NTS, pulling NCS, and liaison duties. He agrees with the Area Chairs that VHF packet should not be used for traffic handling. His reason is that too many boards are too disinterested in traffic handling, causing too many delays. This image is bad for the few who do care about traffic handling and are run by conscientious stations like my own: WA3TAI, Tom Abernethy.

What message?

W7GB, Don Calbrick, in WA has been sending ARL Sixty Nine Fists. More and more traffic handlers are signing their Fist Number — like NY2V, 1293 on their communiques. Hopefully, when messages are delivered to fellow amateurs (especially FISTS), information is given on where a CW net can be found.

The FISTS motto of accuracy before speed should certainly be the motto of traffic handlers. Choose a net at random and tape yourself sending a message. Wait a week or two and then listen to it. I suppose everyone thinks they do well and do not need take the test. Do it anyway, just to see how good you are. You might decide to slow down and work on spacing.

The IMN (Idaho Montana Net) Newsletter suggests we all send at least one holiday-gram to someone. Bill Smith, W7GHT, can't believe he didn't hear one Mother's Day message being relayed in May. Bill also suggests you could send a message acknowledging all sorts of stuff: getting newsletters, any letters, QSL cards, bills (okay, I added that). How about playing chess with someone you know has a willing outlet? It's been a while since I've seen chess moves, and everyone enjoys a good, short joke — especially traffic handlers.

Hints

You just copied a message and need to know the last name of the person in the signature. You can ask, "last name sig"; or, you can request, "WA Pat". This really happened to me by an experienced traffic handler on a real net. 'Last name sig' is 25 characters. 'WA Pat' is 12 characters — that's half the characters and half the time. If it happened one time, you would forget it, but it happens all the time.

Do we do it because we heard others do it; or, is it just easier to send more characters and not have to think?

Although announcing QSK (break in), I received the following request for a fill: "In Nr 27 last name." Even if this was a book, how many of the first names were the same? Is it that folks don't think someone can find 'WA Jim'? And, if it's a book of five, will you give them the time to quickly look at each addressee? Folks seem to think that if they don't get a reply in 2 seconds, they need to help with more clues. If help is needed, a question mark is generally sent.

June/July

The date in the preamble should be three letters. Everyone seems to be able to do this for ten months each year. Then, June and July come along, and many can't resist adding a fourth letter.

Welcome back

The infamous Bob Weinstock, KN1K, is back with a new call — W3RQ, and using the University of Maryland radio station. Bob was Eastern Area TCC Director before the current director, Howie Russell, W2FR. In the six years Bob has been missing, he has acquired a wife and two children. May we hear a lot of Bob's fine fist in the coming years.

Liaisons

I received the excellent QFN (FL CW net) newsletter. It seems that we in Virginia have a common problem. We need more of everything. We need more traffic. We need more checkins. We especially need more liaisons to the Region net. This is demanding work. You must meet the Section Net and the Region Net, each, twice. It takes up a whole evening. And, if you have no traffic to pass, you feel it's a waste of time. When one person has to regularly take this assignment more than once a week, s/he will burn out. When we run out of stations who will be liaison, we will not be able to support nets, and traffic will flow via HF digital modes. This has already happened in various Sections.

As to traffic . . . Considering stats from Virginia, one month we had about 1600 message relays (receives/sends), as reported in the station activity reports (SARs). That same month, we had 213 deliveries and 215 originations. While we can't control the deliveries, we can the originations. By originating just one message, we can generate approximately 15 traffic actions, allowing 14 other people get to handle a message. Of 50 SARs that month, only 20% originated one or more messages. Think of what could happen if every traffic handler just originated one message per week.

Slow speed nets:

Fred, NY2V, also mentioned the ESS, Empire Slow Speed net on 3.690 at 6 p.m. He thinks that it's one of the oldest slow speed traffic nets in the nation. It runs a training program which Fred developed back in the '70s, using as a base the training radiograms developed by VE3GOL. It encourages stations from anywhere to check in. Between the ESS (NY), the MD and NC slow nets, anyone on the East Coast can find a slow speed CW training net. What are you waiting for? Even if you don't intend to be a traffic handler, you can use it for CW practice.

KØERP, Don Falvey, writes to remind folks that not only does Wisconsin have an excellent slow speed CW net, but Minnesota also has one (3.710 at 6 p.m). It's a training net which operates at 9 wpm. All anyone has to do is check in and request the training program. As many as three messages per day can be received. When the liaison course is requested, the speed moves to 15 wpm.

CW Slow speed traffic nets (central)

ITN (IL)	7 p.m. 3680 D
MSSN (MN)	6 p.m. 3710 D
TSN (TN)	8 p.m. 3682 M-F
WNN (WI)	6 p.m. 3723 D
WSSN (WI)	6 p.m. 3645 D
FISTS(MI)	9 p.m. 3682 T/TH

Local times. Let me know of any slow speed traffic nets in your area, or if you are interested in starting one. WR

Bulletin!

Send your news, articles and ideas to:

Worldradio

2120 28th St. • Sacramento, CA 95818

or

e-mail to: kb6hp@ns.net

— editor

Quarter Century Wireless Association, Inc.

John G. Troster, W6ISQ

Golden Anniversary Convention

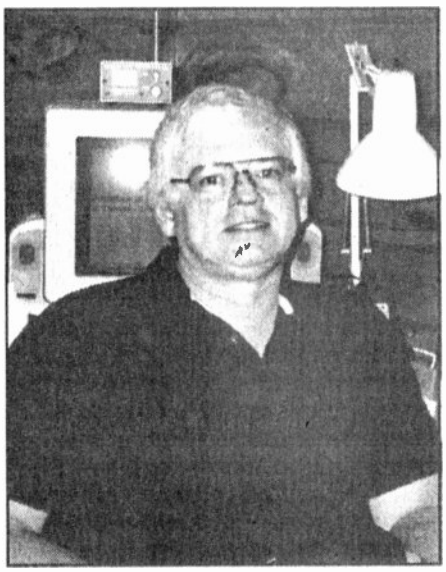
Have you registered yet for the "Big 50th C" in Kansas City, from 10-12 October? No?! Well, why not? Details were in last month's column, so we were ready. For laggards who haven't yet come 'round, all you have to do is read the July issue again. On second thought, just do what I tell ya right now. Write to Dr. Bill McGrannahan, KØORB, 4826 Jarboe, St., Kansas City, MO 64112, asking him to send you the information package you'll need to join in this celebration. This is a one-time event 'cause we're only going to have one 50th. You waited 25 years to join QCWA, and the QCWA has waited 50 for this biggie! You gotta do it! Hey, you might even win a prize at the drawing. I've already put in my order for a slab of TKCB, that's Tender Kansas City Beef.

Tapes for the visually impaired

Back in March '94, we wrote about the good work being done by Father Tom Carten, K1PZU, who records monthly, 90-minute tapes of articles in ***Worldradio*** and other amateur publications for free distribution to visually impaired amateurs. This 10-year-old taping program, which is coordinated by Blanche Randles, W4GXZ, now has about 70 recipients. However, Blanche writes in the latest Headquarters "QCWA Hot-Line Report," published by GM "BJ" Walsh, W7LVN, there's capacity to send out more, so if anyone happens to know a visually impaired amateur who would enjoy having these tapes, please write her, Blanche Randles, W4GXZ, Taping Coordinator, 6002 N. Fremont Ave., Tampa, FL 33604. These tapes are not only free, they may be kept for reference if desired.

Mr. DXCC, Bill Kennamer, K5FUV

At the recent DX convention in Fresno, CA, I watched in amazement as Bill Kennamer, K5FUV, ARRL's Chief of the DXCC Desk, riffled through a stack of QSL cards like a Mississippi River Steamboat gambler shuffling cards. I didn't ask how he learned this so don't draw any conclusions, but it is impressive how fast he can recognize and count cards. But then he's a quick study at several other trades too, all of which prepared him well for this job.



Bill Kennamer, K5FUV

Bill's had several careers, none relating to radio, but it was there, in the background, ever since he became fascinated listening to time ticks from Canadian commercial station CHU when he was eight years old growing up in Paris, Arkansas. He was born in Crossett, AR, but at age 2, he followed along with his parents to Paris, AR, where Dad became Superintendent of Schools.

When he was 14, Bill met Warren Pearce, W5BDQ, who was building a DX-100. This was better than time ticks and was all that Bill needed to get going. He bought ARRL books and Ameco books and records to study theory and to learn the code on his own. In 1960 he got his Novice license and three months later, his Conditional.

His amateur commitment began with a Globe Scout (hello Leo) and Hallicrafter S-107, feeding a dipole on his chosen crystal frequency of 7.154 kHz. He believes he worked every station plus or minus 25 from that frequency in Arkansas and Oklahoma. But he became enthralled with the technical fact that to receive a SSB signal one had to rely on one's receiver to re-inject a BFO signal to make it intelligible. So, he sold his CW rig and bought a Derwood Tucker exciter, a BC-455 and four 6L6s in grounded grid final. Those 6L6s should make one of his predecessors at the ARRL DXCC Desk, Rod Newkirk, W9BRD, burst with joy. Seems Rod used nothing but 6L6s from the time they were invented until they went out of production.

By the time he graduated from high school, he had upgraded to a Swan 175 transceiver on 75 Meters, and had a DXCC country total of four! Those four were the beginning. He was bitten by the DX bug. He also responded to another call of the wild — he became a drummer, playing in the band as well as in every other musical organization in high school. When he went to the University of Arkansas, he sold all his radios and let his license expire. He was too busy studying for his BS degree in Business Administration, and playing drums, a profession he stuck with for 10 years. He played in dance bands, Rock 'n Roll, Country and Western, Jazz trios, any kind of band. What, no opera? Maybe playing those drums are what developed his rattling, rapid prestidigitation riffling through QSL cards!

After college, it was on to Tulsa for two years to work in the business end of an insurance company, then to Dallas with another insurance company, also picking up a CLU certificate, and all the while playing drums. He joined the Dallas Toastmasters Club and there met Al Marquart, W5PXH, and Warren Breune, W5OLY, and got re-interested in radio.

Back to the preparation books and the code records. When he got his code speed up to 7 wpm, he

went down to the FCC in Dallas. The inspector said, "Ah, go ahead and try 13 wpm, you might make it." To his great surprise, he did. The inspector then suggested he try the General and Advanced theory exam. "Might as well, nothing to lose," he said. Bill passed 'em both! But then the inspector, being a genuine-inspector-type, added, "However, we cannot issue your Advanced license until you have passed the Novice exam." Novice exam—hellooooh! Bill nearly panicked. He'd never looked at the Novice book — why would he? But, all went according to how such things go. He passed the Novice and got the Advanced ticket. Then rewarded himself with an SBE-34 transceiver.

One day Bill walked into AGL Electronics owned by Gordon Fogg, N5AU, looking for a mike plug. He got the plug all right, but Gordon began talking to him about contesting and DXing. Why not? He already had four countries from the old high school days. But these two pursuits really require an Extra Class ticket for great success. So, Bill soon obtained one and began doing contests at the Big Contest Station, N5AU, one of the country's premier contest stations. Finally in 1978 Bill went to work as General Manager at AGL Electronics.

Bill got involved in tracking DXpeditions, and rare DX in general for the N5AU contest group, so as to know what DX to look for in the contests. To insure continued local interest in contesting, Bill, with others, founded the North Texas Contest Club, which is still one of the great contest clubs. To keep ahead of his DX tracking chores, Bill sent a check to Hugh Cassidy, WA6AUD, editor/publisher of the famous *West Coast DX Bulletin*. But he got a note and his check returned from Cass who said he had just published the last issue of his *Bulletin*.

What to do? Hams in the Dallas area were now at a loss without the WCDXB, so K5OUK and W5RBO suggested that Bill edit a DX bulletin newsletter. They named their bulletin *QRZ DX* and the first issue was sent free to 125 DXers, from which mailing they got a 50% response. They only offered a three month subscription figuring that if it didn't fly, they didn't want to be stuck with returning money to a lot of subscribers. Not to worry, it flew. Ultimately, Bill took over as the publisher also.

In 1983, Bill gave up Big Time Contesting and removed to the Little Rock, Arkansas, area. However, before departing Dallas, he asked Bob Wynne, W5KNE, to take over as editor of *QRZ DX*. (Recently, W5KNE sold the bulletin to N4AA who continues the publication). There he became active in the securities business as a government bond trader and later also a general commodities trader, a profession in which only the nimble and creative survive. For several years he enjoyed the excitement, sitting in front of a multitude of video screens watching volatile markets around the world leap and lag, but it's also tough on the nerves. Ultimately, Bill quit and took up trading at home for his own account. But with only one screen to monitor, it wasn't the same. So he retired from commodities altogether and opened an insurance company.

One day in '84, Bill went into a drug store. Sandy, the attractive pharmacist behind the counter just happened to be saying to her girl friend, "Why are all the good men taken?" "That one isn't," the friend replied, pointing to Bill, "and I know his mother." Bill and Sandy, the pharmacist behind the counter, were married later that year! Sandy was swept away by Bill's enthusiasm for Amateur Radio and soon became N5LEK. Son Tyler Graham arrived in '91 and Bill, now fully retired, became the full time baby sitter while Sandy continued her work as a pharmacist.

In 1992, an ad appeared in *QRZ DX* stating that *QST* was looking for a DXCC specialist. Bill applied and was hired to take over the DXCC desk at the ARRL. They moved to Newington, and soon acquired a 4-acre lot in the country complete with a log house, as befits a DXer. Only problem is that he has never had time to put up those great mono band antennas he had always dreamed about. Sandy went to work as a pharmacist for Kaiser Permanente. Bill's a guy who keeps finding new challenges. With some partners, he got into the quarter-mile dragster racing game. He refers to this as Top Fuel Dragster racing.

What's the biggest problem in running the DXCC program? Bill says it's the great amount of misinformation on the Internet, and once DXers read those false stories, it's difficult to convince them that they and the stories are wrong. He also receives a lot of information which has to be considered confidential, and if that information were to be revealed, the DXCC desk would never get any more. This means that some of the mis-information cannot be corrected properly or argued in the public, Internet, or convention forums.

What's the best thing about the DXCC top job? For one thing Bill gets to travel a great deal worldwide, lecturing to conventions, on the podium at forums and of course, expertly riffling though QSL cards for the DXCC program. The fun part is the opportunity to visit old friends and meet DXers he has talked to for years but never met. He also is able to collect DXCC information to store for future reference. Bill and his staff operate DXCC, a huge project of thousands of amateurs inundating ARRL with QSL cards to be approved, counted, properly recorded in computers with vast memory, issuing certificates and a lot of other stuff that makes DXCC the premier DX activity in the world.

I hope I've conveyed to you what a knowledgeable, talented and affable fellow Bill is. Don't miss him when he speaks at your next convention. You might even be persuaded to become the avid DXer he is. We're happy that Bill, this drummer, businessman, general manager, newsletter editor, contester, auto racer, DXCC specialist, K5FUV, QCWA Number 26579, is proud to say he's One of Us, the Proud, the Many, the Talented, the Elite, the QCWA. See you at the Big C in KC. 73 + 25, Jack, W6ISQ WR

The Youth Forum

Brian Mileshosky, N5ZGT
1021 Dakota S.E., Albuquerque, NM 87108
E-mail: n5zgt@swcp.com

JOTA '97

Boy Scout and Girl Scout Troops, Explorer Posts, and Cub Scout Packs from all over the world are preparing to participate in the annual event called Jamboree On The Air (JOTA). This weekend activity gives scouts and scouters all over the world the opportunity to meet and make new friendships through Amateur Radio. JOTA is held the third weekend in October of each year from Saturday, 18 October at 12:01 a.m. local time to 11:59 p.m. local time on Sunday, 19 October.

Millions of people have enjoyed this event since 1958, and it's time to start planning for this year's JOTA! If your Troop, Post or Pack wants to participate in JOTA, contact a local Amateur Radio club, or any Amateur Radio operator, and ask if you can use their station for this activity. If you need help finding a club or individual in your area, contact the Educational Activities Department at the American Radio Relay League (ARRL) Headquarters at 860/594-0301. They will give you all the information you need, plus a free packet of information for this year's Jamboree On The Air.

Some of the better locations from which to operate JOTA include Scout camporees, campouts, and other activities where many young people will be present. JOTA is a great recruiting method because it allows young people to learn about and experience our great hobby, what we do, and why we do it!

There are a few rules for Jamboree On The Air. They are as follows: 1) Be sure to follow all Amateur Radio Regulations; 2) Call "CQ Jamboree" so others will know you are participating in this event; 3) After making contact with the other party, move over to another frequency (other than the calling frequencies listed below) to carry on your conversation; 4) Please have a copy of which countries you are allowed to contact while operating third-party; 5) HAVE FUN!!! JOTA is not a contest in any way, shape or form. It is meant to be a fun way to meet people and make many friends!

Although the bands will be crowded with JOTA participants anyway, there are specific frequencies where you will always find people calling "CQ Jamboree." They are as follows:

Note: On 10 Meters, try 28.350 MHz (phone), where US Novice Class licensees may participate. Don't forget to operate on the VHF and UHF bands as well!

Band	SSB (phone)	CW (Morse code)
80M	3.740/3.940 MHz	3.590 MHz
40M	7.09 /7.290-Region 2	7.030 MHz
20M	14.290 MHz	14.070 MHz
17M	18.140 MHz	18.080 MHz
15M	21.360 MHz	21.140 MHz
12M	24.960 MHz	24.910 MHz
10M	28.990 MHz	28.190 MHz

Many separate JOTA activities can be planned with your group, such as home-brewing the antennas that will be used during the event, designing a special 1997 Jamboree On The Air QSL card to be sent to all your contacts, sending reports to local newspapers, making personal log books for all those participating and more!

According to the ARRL, postcard-size certificates are free to anyone participating in JOTA in any way. These are not QSL cards. Order beforehand for presentation during JOTA or award later at Scout or Amateur Radio club meetings. Send a self-addressed stamped envelope large enough to hold the cards ordered to: JOTA Certificate Cards, S221, 1325 West Walnut Hill Lane, P.O. Box 152079, Irving TX 75015-2079. JOTA pocket patches are also available from the Boy Scouts of America. For more information, please contact them at the address above.

This year's event is going to be great! I will most certainly be on the air with my Boy Scout Troop and Explorer Post, and I hope to meet you! Although this is a Scouting event, everybody is invited to join the fun, even if they are not involved in scouting! Please mark your calendars for this event, spread the word to other Troops, Posts, Packs and friends, and get ready to have some fun!

Youth profile

Francis Moy, W1SPG, sent me information about a very active ham who lives in Sydney, Australia. David Lowe, VK1TDJ, is a 17 year old Amateur Radio operator who is a Venture Scout and has assisted in JOTA for the past seven years. He enjoys getting Scouts interested in Amateur Radio through JOTA. David is a member of the 1st Bass Hill Venturer Unit, which is active in rock climbing, map reading, and other outdoor activities. He is the Unit Chairman and has held the offices of Treasurer and Secretary.

At the 1996 JOTA, David and his father, Georges, climbed the Sydney

Tower (known as the Centerpoint) to put up a multiband Ranger antenna, a dipole and antennas for 2 Meters and 440 ATV. The Centerpoint, rising 1,006 feet above Sydney, has been the location of JOTA for the past six years.

Among other things, David enjoys camping, fishing, building electronic gear, experimenting with antennas and surfing the Internet.

JOTA '97 is on its way. David and his dad will probably be seen high above Sydney, preparing the station for yet another year of fun and getting many Scouts interested in Amateur Radio. Good luck in all your endeavors, David, and thanks for everything you have done to the Amateur Radio community.

Well, that does it for this issue! I would like to thank all those who have written and e-mailed me. Keep it coming!

I hope everyone has had a great summer. I sure did! Until next time. 73, Brian, N5ZGT WR

(Ed.note: See story on back wrap.)

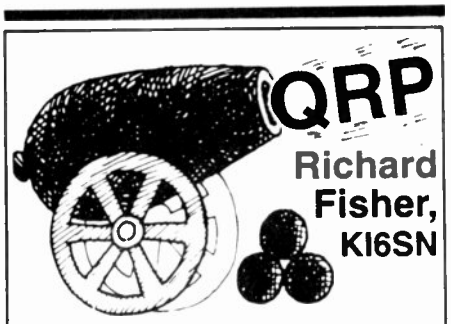
ARNS publications contest

The Amateur Radio News Service (ARNS) will again conduct a publications contest aimed at identifying and recognizing superior performance in Amateur Radio journalism, and evaluating club newsletters with suggestions for improvement. The contest is open to all Amateur Radio organizations. Membership in ARNS is not required. General circulation magazines and professional journals are not eligible.

To enter the contest an application form should be obtained from: Lee Knirko, W9MOL, President, ARNS, 11 S. La Salle St., Ste. 2100, Chicago, IL 60603-1302. Each request for an application should include a self-addressed, stamped, business-size return envelope. Return the completed application form with one copy of any issue of your newsletter from the period July 1996 through December 1997 to W9MOL at the above-listed address. Deadline for receipt of entries is 31 December 1997. Early submissions will be appreciated to facilitate the work of the judges.

Newsletters will be evaluated by skilled judges who will award points based upon the following: General Format; Appearance; Content; General Interest and Attractiveness.

Certificates will be awarded in the following categories: Superior; Excellent: Good. Along with the certificate, each club editor will receive copies of the judging sheets as well as a summary of the newsletter's outstanding characteristics as well as suggestions for improvement. WR



Richard Fisher, KI6SN
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e-mail: KI6SN@aol.com

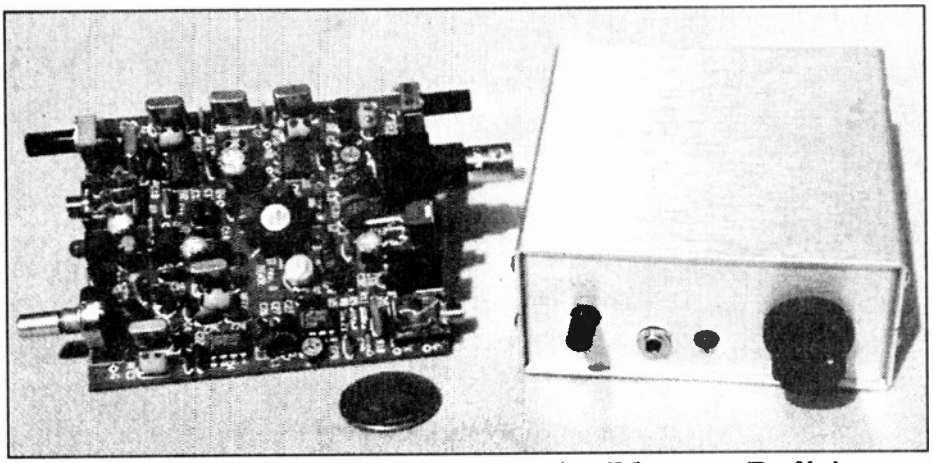
SST: A marvel of minimalism

In little more time than it takes the high-speed Concorde passenger jet to fly from New York to London, you can go from a baggie of loose electronic parts and hardware to a fully functional, nifty QRP CW transceiver.

We're talking, of course, about the SST. In the case of the jet: the supersonic transport. In the case of the QRP rig: Wilderness Radio's newest kit, the "Simple Superhet Transceiver," SST for short.

Designed by Wayne Burdick, N6KR, the SST is a small, lightweight, energy-efficient 2-watt CW transceiver on a high quality printed circuit board stuffed with only about 80 parts. It's housed in a solid, unfinished .050" aluminum case that's small enough to sit on the palm of your hand (1.5 inches high, 3.2 inches wide, 3.5 inches deep). A backpacker's treasure.

Amazingly, Burdick's shortcuts to keep the components count down have resulted in almost no compromise in the performance standards generally expected in today's QRP transceivers.



The 20-meter printed circuit board of Wilderness Radio's new "Simple Superhet Transceiver" sits beside a fully-enclosed 40-meter version of the kit. *—photo KI6SN*

In casual operation using a droopy G5RV antenna, Nevada, California, Illinois, Utah, Arizona and Colorado were worked from Southern California on 40 Meters late one afternoon. With the same antenna, East coast stations were snagged on the County Hunters Net using the 20 Meter SST. Reports on keying and tone quality and stability were great. With such a small box sitting in front of you at the operating position, it's hard to believe that so much can be done with so little.

The SST kit is available from Wilderness for either 40, 30, or 20 Meters. When ordering, 40 Meter operators can specify versions for either the general or novice portions of 7 MHz.

Two SSTs were built at KI6SN: the 40 Meter/general and 20 Meter units. Each went together smoothly and fired up beautifully the first time power was applied. Alignment takes a minute or two. Wilderness' first-class manual walks the builder through construction step-by-step. Even radio amateurs with limited homebrewing experience will have no great challenge in putting the SST together. In addition to assembly and alignment procedures, the documentation includes sections on operation and troubleshooting, modifications, circuit detail and some of the theory behind the building blocks of SST design.

The kit's parts and PC board — silk-screened and plated through — are top quality. Every component, connector and control, all of which mount on the 3 inch by 3.4 inch board, were present and accounted for.

The SST is a marvel of minimalism — and that includes the price: $85 complete.

Burdick chose a variable crystal oscillator (VXO) as his foundation for frequency control. Stability, as might be suspected, is excellent under varying operating conditions,

voltages and temperatures. The trade-off is a somewhat limited tuning range.

The SST uses a 10K potentiometer, varactor diode, RF choke, J310 transistor and crystal in its VXO. Two different varactors are provided with each 40-, 30-, and 20-meter version, giving the builder an option of two tuning ranges from which to choose for each band. Solder in one varactor and you're tuning one portion; solder in the other and you're tuning another portion.

The stock version of the 40 Meter SST here initially used the MVAM108 varactor, covering 8.6 kHz of the band — from 7.032.0 to 7.040.6. The 20 Meter version tunes about 16 kHz — 14.043.2 to 14.058.8 MHz. Builders of the 30 Meter SST report more than 10 kHz swing.

By simply adding a SPDT switch to the front panel and doing a bit of additional wiring, I subsequently modified my 40 Meter version to employ both the MV209 and MVAM108 varactors. Toggling in one varactor surprisingly gave me tuning from 7.031.9 to 7.041.6 MHz (9.7 kHz). Flip the switch to the other varactor and the rig tuned 7.038.1 to 7.044.8 MHz (6.7 kHz). Despite the 3.5 kHz overlap, my SST-40 now covers a total of 12.9 kHz of 40 meters — 7.031.9 to 7.044.8 MHz. That's not bad for a crystal-controlled radio.

The receiver is very sensitive and its filtering is sharp as a tack. The passband is in the area of 200 and 400 Hz at -6dB, with extremely steep skirts. Tune even slightly to either side of the station being copied and the signal disappears. It's a QRM fighter's dream, and is great for weak signal work — which often is the case in low power operations.

The SST employs a 3-pole Cohn filter in its intermediate frequency (IF) stage, which is at about 4 MHz. Walkman-style stereo headphones work just great on the audio side of the house. An LM386 amplifier chip provides more than enough audio for comfortable operation.

The SST has full QSK that's quick (less than 50 milliseconds) and smooth. There's no sidetone. You're copying your output signal when monitoring your CW. It's clean, rock solid and chirp-free.

Power output at KI6SN is a solid 2-watts using a regulated 13-volt supply. If the builder opts to install an internal lithium 9-volt battery supply as detailed in the SST manual, expect output to drop to 1-watt or less.

Transmit offset is between 400 and 800 Hz. In both the 40 and 20 Meter version I experimented with capacitance to bring the offset frequency closer to the output frequency. I found each radio a tad low with the capacitance specified in the manual. That's a matter of taste, however, and many operators have reported that the stock version is just fine.

Burdick's specifications set the 2N3553 final transistor's operating efficiency at between 65 and 75 percent. A large heat sink on the final keeps things cool, calm and collected even after longwinded transmissions. Power output is adjustable from 0 to 2 watts using a board-mounted potentiometer.

The SST isn't greedy when it comes to current drain — less than 20 milliamperes on receive; up to 250 milliamperes on transmit — adding to the rig's attractiveness for portable operations.

The front panel of the SST is home to the main tuning control, AF gain, headphone jack and a bright red light emitting diode in the rig's automatic gain control (AGC) circuit that serves not only as an AGC detector but also as a pseudo S-meter. Clever!

As the operator tunes across the band, CW signals activate the diode, blinking red in rhythm with the code. The brighter the LED glows, the stronger the signal. Static crashes and other noise can cause the diode to flicker, but on a quiet band receiving a reasonably strong signal, it's possible to copy the code by reading the LED — no headphones necessary.

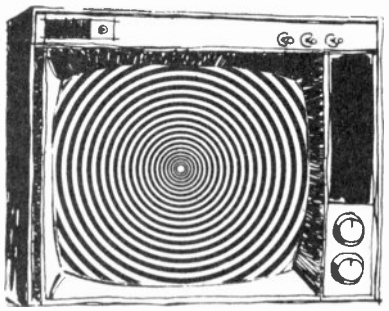
The LED flickers on transmit as well. But the manual cautions that it should not be used as a reference for output power. Rely on your QRP watt meter for that information.

In addition to the LM386, chips employed include three NE612 double balanced mixer/oscillators, and an LT1252CN8 video amplifier used as a buffer/driver ahead of the 2N3553 final.

The back panel houses an ON-OFF slide switch, BNC antenna connector, RF gain control, and jacks for DC power and key line.

The "Simple Superhet Transceiver" kit is $85 plus shipping ($3 U.S, $5 Canada, $15 DX). California residents add 7.75 percent sales tax. To order, or for more information, write Wilderness Radio, P.O. Box 734, Los Altos, CA 94023-0734. Telephone: 415/494-3806.

If you're in the market for a great little CW transceiver that's fun to build, book a flight on Wilderness' new SST. I think you'll really enjoy the ride. WR



RFI & you

Jack Althouse, K6NY

RFI is a major problem these days. If it hasn't hit you yet it's likely that you have a ham friend who has had it. One of the easiest ways to cure the problem is to apply ferrite beads and in this column we've discussed several ways to use them in different circumstances. This time we'll talk about the beads themselves. What is ferrite? Why are there so many different kinds of ferrite? What's the difference between them? Exactly how do they work?

Ferrites are a blend of iron oxide and other metals. In the periodic table of the elements iron has the symbol Fe. This is from the Latin ferrum (iron). So now you know where the name ferrite comes from.

Manganese, zinc, and nickel are the other metals commonly used with the iron oxide to make ferrites. Making them is not easy — it takes about two weeks to turn the metallic powder into a toroid core and the exact processing method is usually kept as a trade secret. It has taken 50 years since the first commercial ferrites were made in the Netherlands to improve the processing to give us the many different ferrites available today.

The original mixture of iron oxide and other oxides determines how the final product will perform so the various ferrites we use are called by the mixture number: Mix 43, Mix 61, etc. Each manufacturer uses his own mix terminology. So one manufacturer's Mix 61 is another's Mix Q1 and another's Mix 4C4. To make things more confusing there is no standard color code with ferrites as we have with resistors. As a matter of fact, most ferrite cores aren't color coded at all — they're just plain black. For this reason it's risky to buy them at the flea market because the different mixes are very different in the way they work. You have to know which mix you have or you won't get the desired results.

The main difference between the mixes is in the frequencies where they work. To suppress RFI we put a bead over a wire and expect it to present an impedance to the interfering signal going down the wire. The impedance of the beads changes with frequency as shown in Figure 1. This curve is for Mix 43. The frequency of the maximum impedance is different for each Mix. Mix 77 peaks at 10 MHz and so is the best choice for RFI suppression from 1 to 40 MHz. Mix 43 peaks at 100 MHz and so is the best choice for from 20 to 2000 MHz. Mix 61 peaks at 400 MHz and peaks at a higher impedance than the others so it is the best one to use for suppression from 100 MHz up. Figure 1 shows relative impedance values; the actual impedance depends on the size of the bead.

Resistance(R) + Reactance(X) Determines Impedance(Z)

We've said that mix 43 is a good RFI suppressor from 20-200 MHz. But the catalogs all say to use 43

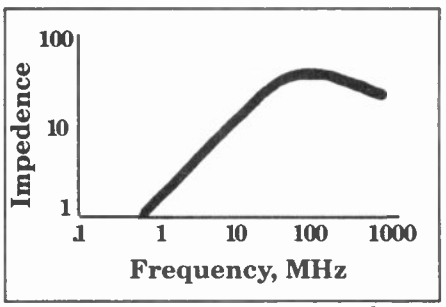


Figure 1. Impedance vs. Frequency. Material 43.

material from .01 to 1 MHz. What's going on here?

The catalog listing gives the frequencies at which the mix makes high quality inductors. The RFI listing gives the frequencies at which the mix is lossy, that is, it absorbs RF.

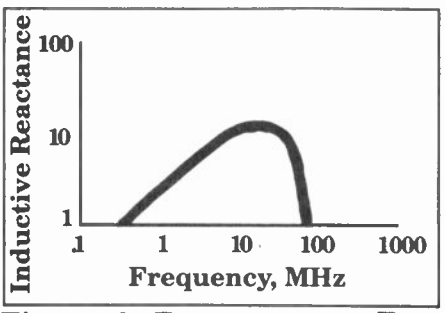


Figure 2. Reactance vs. Frequency. Material 43.

To see why this is done look at Figure 1. It gives the impedance of the beads over the frequency range. But the impedance of the beads is made up of two parts: reactance and resistance. Figures 2 and 3 show the separate parts.

Let's look at the reactance (Fig. 2). At low frequencies it's a straight line. This is what we expect from

Table 1

Material	Permeability	Frequencies to use as an inductor	Frequencies to use for RFI
77	2000	up to 1 MHz	1 to 40 MHz
43	850	up to 2 MHz	20 to 200 MHz
61	125	up to 10 MHz	100 MHz and up

any inductor — the reactance goes up directly with frequency. Our bead slipped over a wire makes a one turn inductor. Of course the inductance is higher than just the one turn of wire because the ferrite has higher permeability than air. The permeability of air is 1 — the permeability of 43 material is 850.

All is well at low frequencies and up to about 30 MHz. Suddenly the reactance stops going up as the frequency increases. As a matter of fact, or it starts going down. Why? Because the permeability of the ferrite drops at the higher frequencies.

But look at Fig. 3, the resistance.

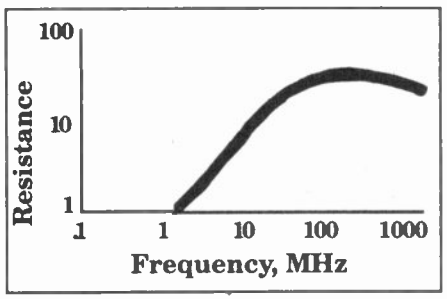


Figure 3. Resistance vs. Frequency. Material 43.

It keeps going up all the way to 100 MHz and stays at a high value to 1000 MHz. At these higher frequencies we no longer have a good inductor but a very lossy one — one that absorbs RF and turns it into heat — perfect for RFI suppression. All this is summarized in Table 1.

Of course you can use a ferrite bead for RFI suppression in the frequency range where it is mostly inductive. That's what we did in years past when we wound the AC cord around a mix 61 rod. This made a good RF choke for the HF bands. But using the beads in their resistive mode is more efficient in the use of ferrite. The figures tell the story: the bead's impedance is always highest at the frequencies where the resistive part of the impedance is high.

Bear in mind that the bead's change in impedance is gradual so the frequencies given should be taken as a rough guide. They will still work outside the given band. But knowing about and understanding the way they work will help you get the most effective use of them. Let's get rid of that RFI! WR

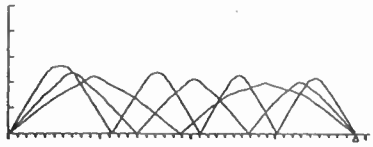
Web page list update

Mark Downing, WM7D is seeking amateurs' e-mail and web page addresses to update his database. So far Mark's WM7D Callsign Database includes nearly 800,000 hams from the U.S. and Canada, along with e-mail addresses, web pages, and QSL manager information.

If you have such information, please contact Mark by e-mail to: wm7d@wm7 d.net or on the web at: www.wm7 d.net —*via WM7D*

HE SAYS HELP MAY BE A LITTLE LATE, BUT IF IT'S ANY CONSOLATION, I'M HITTING THE REPEATER FULL QUIETING—

Propagation



Carl Luetzelschwab, K9LA
1227 Pion Rd., Ft. Wayne, IN 46845
e mail: k9la@gte.net

Here's an interesting question. Why does a dipole that's mounted up high generally put in a stronger signal to a far distant station than a dipole that's mounted low?

Some people will answer, "it's because the signal from the higher dipole takes fewer hops to get to the distant station than the signal from the lower dipole." That sounds very plausible, as they say the radiation angle of a low height dipole is almost straight up, whereas the radiation angle of a high height dipole is much lower. That sounded good to me many years ago. But that's not the correct answer. Let's see why.

Take a look at the curve labeled "at 20ft" in Figure 1. This is the vertical (elevation) pattern of a half-wave 20M dipole mounted 20 feet high over average ground. That's not very high — many two story houses are at least that high. That height translates to about .29 wavelengths on 20M. If you look carefully at the pattern, you'll see that it reaches a maximum of about +5.8 dBi at about a 50 degree elevation angle.

The other curve in Figure 1, the one labeled "at 40ft," is the elevation pattern of the same 20M dipole, but now it's mounted 40 feet high. That height translates to about .57 wavelengths. The pattern at this higher height reaches a maximum of +7.83 dBi at about a 25 degree elevation angle.

So the dipole mounted at 20 feet has a "radiation angle" of 50 degrees. And the dipole mounted at 40 feet has a "radiation angle" of 25 degrees. Assuming an F region height of 300 km and using the data in Table I of the March 1997 column, one can see that the high dipole covers 1124 km in one hop, whereas the low dipole only covers 474 km in one hop. That sure says the low dipole will take more hops to get to the distant station — in fact about three times as many. How can this analysis be wrong?

It's wrong because of two erroneous assumptions. The first assumption is that the antenna only radiates at its "angle of radiation," which is taken as the angle at which it is maximum. The second assumption is that this "angle of radiation" is the angle that always gets through the ionosphere to miraculously end up right at the specific distant station location. In other words, these two assumptions ignore the ionosphere and assume the antenna determines the path through the ionosphere.

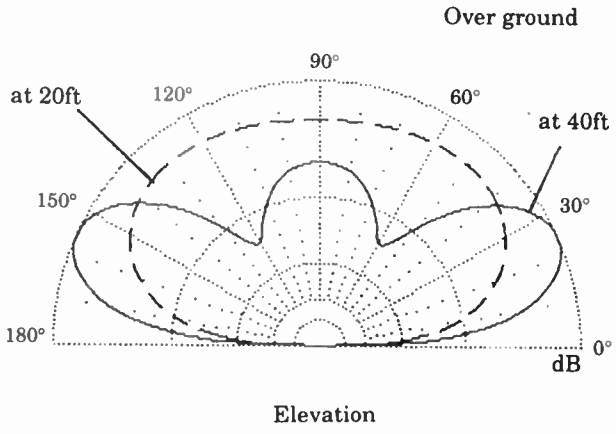


Figure 1. Elevation patterns of 20M dipole at 20 feet and 40 feet.

Figure 1 should refute the first assumption. If either antenna radiates at its maximum response angle, why doesn't it radiate at other angles? The answer is that it indeed does radiate at other angles — in fact it radiates at all angles from 0 degrees (very low angle) to 90 degrees (straight up). Sure, some angles have very little radiation (even nulls in the pattern probably aren't as deep as the model says due to inaccurate ground modeling). But they still radiate, and these differences result in the amplitude response seen. So we should stop talking about an antenna's "angle of radiation" — an antenna radiates at many angles.

The second assumption is a little tougher to address because I'm not exactly sure of its origin. I'll take a guess that it comes from the pool table/pool ball analogy that is used in the simple description of how the ionosphere works. In this model, the ball always bounces off the cushion. Thus this model is of an ionosphere with a maximum usable frequency (MUF) that is always high enough to return the ball.

In real life, the ionosphere does not work this way. The electron density profile varies all along the

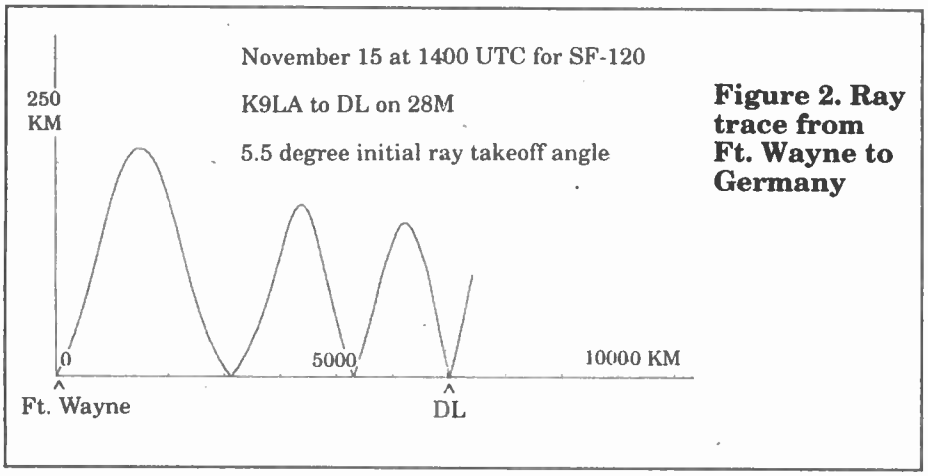


Figure 2. Ray trace from Ft. Wayne to Germany

path, which says the MUF varies all along the path. Depending on the take-off angle, the signal could go through the ionosphere into space or it could be refracted back to earth. If it is refracted back, it has to hit the ground at the specific desired location. Hitting the ground anywhere else doesn't do any good. This whole process is compounded by multiple hops.

What this means is the pool table/pool ball analogy is too simplistic. Perhaps the cushion needs holes in it at certain places to allow the pool ball to roll off the table! In addition, the ball needs to hit a certain spot farther on down the table, and not just hit anywhere. What it all comes down to is that the ionosphere, not the antenna, determines what elevation angle gets from point A to point B. The antenna's pattern has nothing to do with determining the path through the ionosphere. This is a subtle but important difference.

How do you determine what elevation angle gets to a distant station? The best way is to do a ray trace (assuming the model of the ionosphere is good enough). For example, Figure 2 is a ray trace from Ft. Wayne to Germany at 1400 UTC for the month of November at a smoothed sunspot number (SSN) of 70. This shows that for these conditions, the only elevation angle to get from Ft. Wayne to Germany is 5.5 degrees. Since it refracts at F region heights and takes 3 hops, it is referred to as a 3F mode. Any lower angle puts the signal past Germany, which doesn't do us any good. Any higher angle puts the signal short of Germany, which again doesn't do us any good. If the angle is 15 degrees or higher, it goes through the ionosphere into space, never to return. Note that this ray trace does not depend on what antennas, transmitters, or receivers are at each end of the path.

Since the given conditions result in only one elevation angle getting the job done, then the energy from both the high and low dipole must follow the same path. For this case, it's a simple matter to determine which antenna will put the stronger signal into Germany. Just compare the patterns at 5.5 degrees. The low dipole at 5.5 degrees is about 17dB down from +7.83dBi, which is about -9dBi. The high dipole at 5.5 degrees is about 10dB down from +7.83dBi, which is about -2dBi. Thus the high dipole wins by 7dB. It wins not because it takes fewer hops. It wins because it puts more energy at the elevation angle dictated by the ionosphere.

So the correct answer to the opening question is the high dipole puts in a stronger signal to the distant station because it puts more energy at the low elevation angles generally needed for distant contacts. The signals from the two antennas do not take different paths, which is equivalent to saying that one does not take fewer hops than the other.

I'll have to confess that I made things simple by choosing a path and conditions that only had one elevation angle (mode) available. More than likely a couple elevation angles may be possible — via the F region, the E region, or a combination of both. Regardless of the number of elevation angles, the concept is still the same. The reason one antenna is stronger than another is because one puts more energy than the other at the dominant elevation angle dictated by the ionosphere. Thus the correct way to compare two antennas is to determine what angle the ionosphere allows, then compare antenna patterns at that angle. Note that this statement is applicable in both elevation and azimuth.

Next month will be the first part of how propagation programs work and what areas to pay attention to for best predictions. WR

Send it to us!

Send your news, articles and ideas to:

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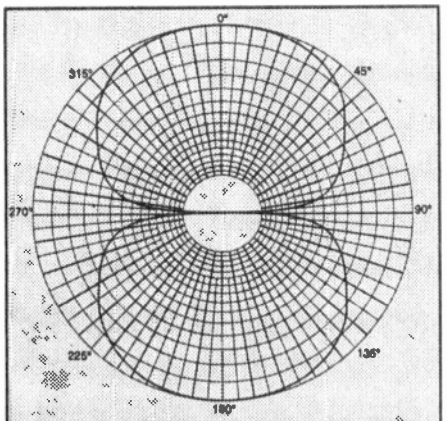


AERIALS

Kurt N. Sterba

We had a very special column planned for you but must delay it in order to possibly rescue some from sparks and poppin'.

We'll slide into this. First, the offer has been made many, many times that we would, for FREE, look over any antenna book (prior to publication) and hopefully catch any items that would embarrass the author.

Instead of accepting our kind, gracious and well-meaning offer, authors pass up the opportunity to avail themselves of our vast experience and thus, alas and alack, we are forced to make our comments when it is, sadly, far too late.

We shall not name the book as whenever we do the carpers say that we are "picking on" the author. In this case it is two authors who, every few pages tell us how educated, brilliant and wonderful they are.

OK, I'll admit that blowing a chart right out of the water in saying that 25 feet is 85 meters, etc., with both sides of the vertical lines mis-labeled isn't the end of the world, but let us proceed.

There is talk of placing a dipole two feet above the ground. Not mentioned is that the efficiency will be "zip." The terms "Counterpoise," "Ground," "Radial" are used when they mean "Reflector."

The problems just leaped off the page to us, but obviously not to the authors. A diagram tells that the spacing of a reflector under a dipole (when high angle radiation is desired) should be 0.5 WL while the text says .15 WL.

On another page, another diagram shows 0.5 WL between driven element and reflector and the adjacent text says the reflector should be 0.1 to .25 WL below. Elsewhere the text says the separation should be as close to .15 as possible.

Another place says that anywhere from 2 MHz to 10 MHz the antenna should be "kept at about a constant 30 feet off the ground."

Well, at 2 MHz, 0.1 WL is 49 feet which means we will have to dig a pretty big hole to put the reflector in.

It's a bit puzzling to keep seeing the example they give (in a book devoted to the bottom end of the HF spectrum) to these two half-wave plus structures holding up a dipole. Just how many 140 ft. towers (for 3.5 MHz) are there?

The commercially manufactured version of the T2FD is written about without mentioning that it is an absolute prune and was savaged by *QST* in a review.

"Inverted Vs find their second half in a counterpoise wire or in the earth." Surely you jest.

The book waits until page 101 to give the 468/fMHz formula. Well, did the readers need it to grope through the first 100 pages? If not, why give it at all. And if they did, why not give it on page one?

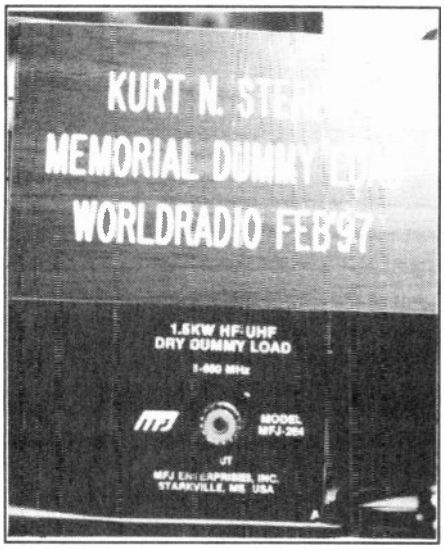
On page 104 we are promised pictures of eight different antennas. Only two are shown. We could go on further like this but let's now move to the gross and serious omission.

We are told "Further research has shown that if the antenna (loop) circumference length is between 1/8 and 1/3 wave length at the operating frequency, radiation efficiencies approaching that of a dipole can be achieved." And that's it! If at that moment someone put down the book and dashed out to build a wire loop with a circumference of, let's say 9 feet for 14 MHz he will find that his $100 tuner has gone into orbit. The voltages and currents get VERY high (huge) in those small loops. But, no such warning was given in the book. You are getting it here. Much later in the book it told that the resistances of the loop get very, very low but there was no warning of the consequences. We can not assume that every reader can connect what is given and what would be assumed by those of greater experience. So the warning is stated here. We are talking about BLOOEY!

New subject: Many have asked for a repeat of the Dual Off-Center Fed Reversed Dipole. So here it is. First obtain a dipole center connector. On the terminal to which the coax feedline center conductor connects, solder two wires each 12 feet long. On the terminal which connects to the shield side of the coax, solder two wires each 24 feet long.

The connector is in the air vertically instead of the usual horizontal manner. The two 12-foot wires are supported in the usual dipole fashion. The two 24-foot wires come slanted down like an Inverted V. The feedline is attached to the dipole's center connector with a 90 degree elbow coax adapter and drops vertically in the usual manner.

Important note: When trimming for exact resonance the trims will have to be exact and maintain the 2 to 1 ratios of the two dipoles. What is occurring is two dipoles, each fed at the one-third mark are paralleled and reversed. The flattop



A genuine KNS dummy load, as displayed in the shack of Bob Hickman, AA5WE.

wire is a total of 24 feet before adjustment. The downward angles of the two 24-foot wires will need some adjusting. With angle adjust and possible trimming for resonance, an SWR of 1:1 (on 20M) is usual.

After getting 20M to your liking you may check SWRs on all the other HF bands above 14 MHz. Whatever exists, (it will be highest on 28 MHz), is of no concern and can be compensated for with an antenna tuner. What we have is but one small coax-fed antenna that is playable on all HF bands 14 MHz and higher.

To check efficiencies on all bands, start on 20M and with a wattmeter AFTER the tuner (on the antenna side) read forward power and then reverse power. Subtract reverse power from forward power and compare the result with what power flowed into your dummy load.

Take my word for it, a 25 percent loss can NOT be heard at the receiving station. Should you feed this antenna with open wire (and a tuner) instead of coax, any loss borders on the unmeasurable. DX has been worked with this antenna.

Kind gentlemen responded to our query about the top wire on the Multee. Their answers were deeply profound and appreciated. I just wish any of them had said they had actually erected the antenna and truly MEASURED it instead of having only modeled it in their computer. Get out in the fresh air! (And with that statement we can count on another letter from Roy Lewallen.)

New Subject: There is an antenna writer, let's call him Jose Otto, who I've never seen make a mistake. His writings have always been clear and based on practicality. However in the August issue of "Populist Electronica" he seemed to have lost something. In a column aimed (by name) at hams he tells of an amplifier which is marketed to amateurs and says, "with final output power exceeding 1,500 watts." He also goes on to say, "uses two Eimac 3CX8007 tubes to smash through the ionosphere with over 1500-watts."

Allow me to state that not only is such action NOT legal it isn't cricket, it isn't sportsmanlike, it isn't decent. It is, to be blunt, cheating. It is unethical, dishonest, disgusting, and should not be tolerated.

To a lighter note. And how could we, even being the humble souls that we are, not recognize the work of Bob Hickman, AA5WE, who obtained one of the dummy loads used in an experiment outlined here previously. We are touched indeed.

(Next month, the Maw and Paw Kettle of the antenna world will present the greatest improvement you can make to your station, and at no cost.) WR

New RS-15 problem caused by QRO operators

At the beginning of the year, RS-15 was self-switching all its systems off soon after entering eclipse.

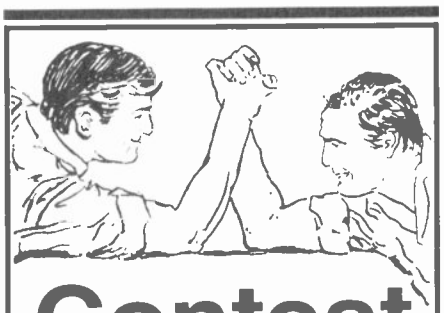
Then about in May the bird began to function well into shadow. Now it's reported that RS-15's transponder and beacon are now switching off even when under solar cell battery charge in daylight.

This effect is evidenced whenever high power uplink stations come up on the transponder. The satellite switches off, but normally recovers within a few seconds, only to switch off again when the high power operators reappear. Users of RS-15 are being cautioned to use as little uplink power as possible to maintain communications unless they want RS-15 to disappear in the middle of their QSO.—*via AMSAT-N*

Cyberham lives on

Cyberham Magazine will not die after all. According to publisher Gene Harlan,WB9MMM, the August *Cyberham* material will be integrated into *Skip* Magazine, the national version of the former *Florida Skip*. It is the monthly publication of Gerry Wentz, KC4EHT.

Contact Skip Magazine, 672 Indian River Dr., Melbourne, FL 32935; e-mail gwentz@digital.net—*via WB9MMM*



Contest Corner

Don Durk, KA1DWX
76226.1414@compuserve.com

Ready? On your mark, get set....

Well it's Fall and almost time for the October CQWW. Take advantage of the weather and start work on those antennas for the upcoming contests. Do you have something up for the Carribbean or Central America? If not, devote a separate antenna fixed on it. Decide what you need for your QTH on each band to max your path to all those close-in DXpeditions and put up a simple, dedicated, effective antenna. It may help you crack the pileups for these nearby DXpeditions more quickly (or try waiting 'til the last 6 or 8 hours of the contest to get these guys). Having trouble with Europe from the west, or Japan from the east? Try a dedicated low angle, modest gain antenna like a 2 element vertical or a phased 2 element 1/4 wave vertical with a decent ground reflective system. It may just outperform your tribander at 40 feet!

Get logs in within 15-30 days! Electronic logs are often accepted provided the format is as specified. Usually ASCII or CT.BIN files are okay. Most contests require separate logs per band, check sheets for over 200 Qs, a summary sheet and a signed and dated affidavit attesting to observance of the rules of both the contest and your local regulating authority. A statement wherein you agree to be bound by the decisions of the contest committee is also needed. All times are in UTC unless othewise stated. WARC bands excluded.

Check out the USAF 50th Anniversary QSO Party 20 September - get to send your call/AF1! Also, The new Atlantic Provinces SSB 'test 21 September!

Late August 'tests

(see August ***Worldradio*** for details)

•TOEC WW CW Grid 'test
23 August 12:00-24 August 12:00
(RST+grid)

•HANDI-HAM Activity Day
30 August 12:00-24:00
(RS(T)+QTH+name and member or non member

September 'tests

•DARC Digital Corona 'test
07 September 11:00-17:00
(RST+number)

Q 1 x per mode-RTTY, AMTOR, CLOVER and PACTOR. 28 MHz only. Score- pts (1 per Q) x mults (DXCC/WAE list and each call district in JA, W and VE). Single op or SWL. Separate log per band. (DF5BX, AB5KD) 80-10 Meters. Try 3.585; 7.085; 14.085; 21.085; 10 Meters at 1900 and 2000Z; 15 Meters at 1930 and 2030Z. 150W max output. 12 hrs ok for multis; single op max is 10 hrs-mark logs for time outs of not less than 30 mins. 10 minute rule.

•LZ CWDX 'test
06 Sept 12:00-07 Sept 12:00
(RST+ITU Zone, not CQ Zone)

Q any station in test. 80-10 meters. 10 min rule. Score- pts (6 for LZ; 3 for other continent; 1 for same continent) x mults (ITU zones on each band). Single op, single band //single op, multi band //multi op, multi band, 1 transmitter//SWL. Awards. BFRA, P.O. Box 830, 1000 Sofia, Bulgaria.

•All Asian SSB 'test
06 September 00:00-07 September 24:00

(RS+ age or zero if you chose) 160 -10M. Single op single band; single op multi band; multi op multi band 1 tx; multi op multi band multi tx. Score-pts (1 pt for ea Asian Q 7-28 MHz; 2 pts for 3.5 MHz and 3 pts for 1.8 MHz) x mults (For Asian stns -1 mult for ea DXCC country per band. For non-Asians Asian prefixes on each band per WPX rules). Separate logs per band. '96 congrats to KH6HH, RKØWW, RW9UZZ, W7GG, N6AW, LP7N JARL, P.O. Box 377, Tokyo Central, Japan

•IARU Reg 1 SSB FD 'test
06 Sept 15:00-07 Sept 15:00
(RS+ Number)

Q1x per band 80-10 meters. G3UFY.

•NA CW Sprint
7 September 00:00-03:59
(Calls+number+name+state/ prv/ DXCC country)

Q 1x per band, 80,40 and 20 meters only. 40 kHz up. NA stns Q all. QSY rule: If you call CQ, QRZ, etc. . . you can only work one stn in response to that call. You then must move at least 1 kHz to work another stn or 5 kHz before calling CQ, QRZ, etc. Once you QSY, you may not make a new QSO on the earlier frequency until you have made a contact at least 1kHz or 5 kHz away. Score pts(Qs) x (total states [not KH6]+VE provs (8 possible- [VE1 or VO1 or VO2], VE2-VE7, [VY1 or VE8]+NA Countries [excluding USA and Canada]). Non North American countries and KH6 are ok for QSO pts but not mults. Team competition by pre registration w/N6TR. N6TR/NCJ.

•Panama SSB 'test
7 September 00:01-23:59
(RS+number)

Q 1x 40, 20 +15 meters only. Q all participants not just HP stns. Score-pts (2 per HP club members; 1 for others) x mults (ea DXCC country). Certs+plaques. Radio Club de Panama, P.O. Box 10745, Panama 4, Panama

•YLRL SSB/CW Howdy Days
9/10 Wednesday 14:00-9/12 Friday 02:00

(RS(T)+number+YLRL member or non member) Q 1x per band not each mode. 80-10 meters. CW-up 40 to 70 and 21.120-21.150 and 28.150-28.200; SSB- 3.940-70, 7.240-70, 14.250-280, 21.380-21.410 and 28.300-28.610. Power limit 750W out CW; 1500W PEP SSB. Score-pts (2 for ea YLRL member

Qd; 1 for non member). Awards. K8DHK.

•ARRL Sept VHF 'test

13 September 18:00-15 September 03:00

(Grid Locator)

Q ea stn 1x per grid square per band. Keep 50.100-125 open for Intercontinental Qs. Scoring-pts (1 for 50+144 MHz; 2 for 222+432 MHz; 3.902+1296 MHz; 4 for 2.3 GHz or higher) x mults (grid square total for all bands-ea different grid square counts as 1 mult on each band). No repeaters. Single op, 1 band // single op, multi band//single op, QRP portable//rover// multi op// Ltd multi op. Awards. ARRL

•WAE SSB 'test

13 September 00:00-14 September 24:00

(RS+number)

Q 1x/band. 3.5-28 MHz NO WARC BANDS. 36-hour max for single ops. World Qs EU only. EU Qs outside EU. Non EU may send QTCs (but not more than 10) to each EU stn (It's ok to send the 10 spread out in 2 groups of 5; 3 groups of three and 1 group of 1, etc.) A QTC is info on a prior Q with an EU stn. The format is Grp 1/10, 2/10, 3/5, 4/5 etc. this means your first group having ten exchanges, your fourth group having 5 exchanges etc. You then send time/ stn/nr for example 0001/DJ6QT/020 0002/DL1IAO/034 0004/DJ6RB/023 etc. EU stns receive no more than ten QTC from each station outside EU. Score - Number of QSOs + QTCs x multipliers (Non EU = Nr of EU countries per band {WAE country List} x2 for 14/21/28; x3 for 7 MHz; x4 for 3.5 MHz. EU stns= 1 mult per band for each non EU country per DXCC list.) Single op all bands/Multi op single transmitter/ SWL. Club competition. '96 Congrats- LY5A, S5ØA, W2UP, N5OKR + multis 3V8BB, IG9RAI, KC1XX and K1JKS. Logs to-WAEDC, P.O. Box 1126, D- 74370 Sersheim, Germany.

•NA SSB Sprint

15 September 00:00-03:59

See 7 September NA CW Sprint.

3.850;7.225 and 14.275

Team competetion by pre-registration w/K7GM. K7GM/NCJ.

•USAF 50th Anniversary All Modes QSO party

20 September 0001-21 September 2359

(RS(T) + identifier Q 1x per mode per band, all bands and modes. Point identifier-USAF members, veterans, retirees or those AF Reserve, Air National Guard or any component thereof subtract the year you entered the Air Force, Air National Guard or Air Force Reserve from 1997 and this is your point ID. For example, if you entered the Air Force in 1947 your point ID is 50 (1997- 1947=50). Hams without USAF affiliations send CALL/AF1; those hams USAF affiliated now or previously send point identifier -ur call/50 or appropriate point identifier per above. Certs. Logs-K5HOG, Razorback Radio Club, 604 Julian Ave., Honolulu, HI 96818

•Washington State Salmon Run

20 September 12:00-21 September 07.00 and 12:00-24:00 (RS(T) +counties (39) for WA stns; state/ prov/DXCC country for others

Q 1x per mode per band, 160-10. QRP, Low power (<200W), QRO. Special competition for multi op WA clubs. Fqs: CW-1.805 and 30 up ; SSB-1.815, 3.925, 7.260, 14.280, 2.130, 28.380. N/T- 3.700, 7.125, 21.150, 28.160. Score-pts (3 for CW; 2 for SSB; 6 for N/T CW but 2 for N/T SSB) x mults (count once per mode, not per band- for WA stns: States/provs/ DXCC countries; for non- WA stns: WA counties[39 per mode].W7TSQ.

•SAC CW 'test

21 September 15:00-22 September 18:00

(RST+number)

Q 1x per band.Q JW, JX, LA- LJ, OF-OZ, 7S, 8S, SI-SM and TF. 80-10 meters. Score-pts (EU stn -1pt/ Scandinavian stn; Non EU stn-1 pt 14-28 MHz, 3 pts 3.5 and 7 MHz) x mults(SAC call areas (0-9) per band. /p=0. Multipliers are each call area number NOT prefix. If you Q SI3, SM3, 7S3 and SK3 on one band it is one mult for S_3. Areas are: JW1-0; JX1-0; LA/LB/LG/ LJ1-0; OF/OG/OH/ OI1 -9; OJ; OX3-5; OY1-0; OZ1-0; 7S/8S/SI/SJ/SK/SL/ SM1-7 & 9 & 0; TF1-0. 10 minute rule. Single op, multi band 1 tx// single op multi band 1tx QRP <5W/ /multi op, multi band 1 tx// SWL. Awards, Plaques. Show dups in log. LA9HW

•Atlantic Provinces SSB QSO Party

21 September 00:00-22 September 00:00

(RS+county for Atlantic prov stns; RS+state/prov/DXCC country for

others)

Q Atlantic prov stns 1x per band. Atlantic prov stns Q all. 160-10 meters. Classes: single op low power (<100W); single op High power (>100W) Score-pts (1pt per Q) x mults(non Atlantic prov stns - 1 per ea Atlantic prov County not per band; for Atlantic prov stns-1 for ea Atlantic prov county, other prov, state/DXCC country, not per band). Certs. Loyalist City ARC, P.O. Box 6552, Stn B, Saint John, New Brunswick, Canada, E2L 4R9

•ARRL 10 GHz 'test

20 September 8 a.m.-8 a.m. Local

21 September 8 a.m.-8 p.m. Local

This is the second weekend of a two weekend test. (See the August column of ***Worldradio***) (Send six character Maidenhead locator-see *QST* April '94 p. 86; Signal rpt optional) 2 categories: A)10 GHz; B) 10 GHz and up. Q 1x per location per band. A different location means a move of at least 16 km (10 miles). Pre scheduling of Qs is recommended. Try 7 p.m. or later on 3.818 the Tue, Wed + Thur before the test or 144.230 + 146.550 MHz. Ck *QST* for details.*QST*.

•SAC SSB 'test

27 September 15:00-28 September 18:00

See 20 September SAC CW 'test (RS+number) LA9HW.

•TN SSB/CW/FM/Digital QSO Party

28 September 18:00-29 September 01:00

(RS(T) + counties(95) for TN stns; state/prov/DXCC country for non TN stns Q 1x per mode per band 80-10 + 146.550 FM. Fqs: CW-40 up; SSB 3.900; 7.240; 14.280; 21.390; 28.390. N/T- 3.700; 7.130; 21.140; 28.140; 28.390; 14.655. Okay to Q mobiles again when they change counties. Single op; Multiop; Mobile; N/T.Score -pts (2 for CW/digital 1 for SSB/FM) x mults (for non TN stns 95 counties max; for TN stns states/provs/DXCC countries; extra mult for ea additional 5 Qs w/same county). Certs D. Smith, 1385 Old Clarksville Pike, Pleasant View, TN 37146-8098.

•CQWW RTTY 'test

27 September 00:00-28 September 24:00

(US/VE-send RST+ST/VE area+CQ Zone; Others send RST+CQ Zone)

RTTY, ASCII, AMTOR (FEC and ARQ) and PACKET.Q 1x per band not mode. 80-10 Meters. 48 hours ok.10 minute rule. Score-pts (1 for own country; 2 pts if ur continent but not ur country; 3 pts outside ur continent) x mults (for each band-ea U.S. state[48 max]+VE area [13 max- VO1; VO2; VE1, PEI; VE1, NB; VE1, NS; VE2; VE3; VE4; VE5; VE6; VE7; VE8, NWT; VY]+ DXCC country or WAE country [KH6 and KL7 are counted as country mults not state mults] High Power>150W class and low power class<150W. Single op all band//single op 1 band//single op assisted all band only//multi op 1 tx all band only//multi op multi tx all band only. Certificates KT1N.

October 'tests

10/4 Weekend
- UCWC CW 'test
- VK/ZL SSB Oceania 'test
- F9AA CW/SSB Cup 'test
- EU SSB Autumn Sprint
- Int'l Hellenic 'test
- CA SSB/CW 'test
- Ibero-American SSB 'test
- RSGB 21/28MHz SSB 'test

10/8-10/11
- YLRL CW Anniversary Party

10/11 Weekend
- PA SSB/CW QSO Party
- VK/ZL CW Oceania 'test
- QRP ARCI Fall QSO Party
- EU CW Autumn Sprint
- FISTS Fall Sprint

10/18 Weekend
- ARRL EME 'test part 1
- JARTS WW RTTY 'test
- Asia Pacific CW Sprint
- Worked All Germany SSB/CW 'test
- RSGB 21/28MHz CW 'test
- IL SSB/CW QSO Party

10/22-10/24
- YLRL SSB Anniversary Party

10/25 Weekend
- CQWW SSB 'test

November 'tests

11/1 Weekend
- ARRL CW SS
- HA QRP CW 'test 11/1-7
- Ukrainian DX SSB/CW 'test
- Collegiate CW Championship
- IPA Radio Club SSB/CW 'test
- DARC Corona Digital 'test
- HSC CW 'test

11/8 Weekend
- JA Int'l SSB 'test
- WAE RTTY 'test
- ALARA SSB/CW 'test
- OK/OM SSB/CW 'test
- DARC 10 Meter SSB/CW 'test

11/15 Weekend
- ARRL SSB SS
- ARRL Int'l EME Part 2
- OE 160 Meter CW 'test
- IARU Reg 1 160 Meter CW 'test
- Collegiate SSB Championship
- RSGB 1.8 MHz CW 'test
- AGCW DL Homebrew & Old Time Equipment CW 'test

11/22 Weekend
- CQWW CW DX 'test

WR

Receiver warnings

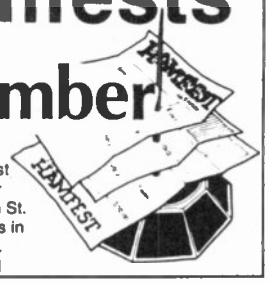
The FCC is warning individuals and companies that offer to modify scanners or any other receivers which permit them to listen in on cellular telephone frequencies that this activity is prohibited by federal law and FCC rules. The directive says that scanning receivers must be FCC-certified and incapable of readily being altered by the user to pick up the cellular bands.

The FCC went on to say that modification of scanners on a substantial scale to receive cellular frequencies will be considered to constitute manufacture of such equipment. This says the regulatory agency is in direct violation of federal law and FCC rules. The FCC added that any entity engaged in such activity is cautioned to cease advertising and/or performing any such activity immediately or face tough punitive action. — *via FCC release*

Reflections

Take a moment to reflect on what experiences you have had in Amateur Radio. If you have something to share with ***Worldradio***'s readers, write an article! All your news features and letters are happily accepted at our 28th Street offices. (2120 28th St., Sacramento, CA 95818)

Hamfests September



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!

Canada

The **Manitoba Amateur Radio Museum (MARM)** will hold a hamfest 06-07 September on the grounds of the Manitoba Agricultural Museum at Austin, Manitoba, where MARM is located. For further information, contact Dave Snydal, VE4XN, 25 Queens Crescent, Brandon, Manitoba, Canada R7B 1G1 or Packet VE4BBS@VE4BBS #HWD. MB.CAN.NA. Talk-in on repeater 146.91(-).

Alaska

The **Anchorage ARC** will hold its 26th annual hamfest on 20 and 21 September at the Kincaid Park Recreation Center (southwest of Anchorage International Airport, all the way west on Raspberry Road). Free parking, admission $3 (12 and under free). Gordon West, WB6NOA, will be the hamfest demonstrator/banquet guest speaker. Events include QSL Bureau, MARS displays, Civil Air Patrol, ARES, swapmeet, country store, auction, door prizes, demos, guest speakers, refreshments, VE test sessions (both days), FCC commercial license exams (Saturday only). For table information, contact Rob Wilson, AL7KK, at 907/248-0976. For information, contact Lillian Marvin, NL7DL, at 907/248-0976 or e-mail at rlment@alaska.net. Talk-in on 146.94(-) (PL 100 or 141.3).

Arkansas

The **Queen Wilhelmina Hamfest Association** will hold their annual Mena Hamfest on 05 and 06 September from 8 a.m. to 5 p.m. at Queen Wilhelmina State Park. The park is located 13 miles west of Mena Arkansas on Highway 88. Come see the beauty of Rich Mountain and visit with some great "hams." Plenty of RV and tent camping. Vendors $10 (under tent), $5 outside. For more information, contact Charlotte Lee, KC5DOR, 415 Crosstrails Rd., De Queen, AR 71832; 870/642-7656.

The Twin Lakes ARC will hold a hamfest on 21 September from 9 a.m. (setup 6 a.m.) to 3 p.m. at the National Guard Armory on Highway 62SW. Admission is $3, tables $5 (includes one admission). Contact either Phil Waters at 501/425-7406 or Miles Waldron at 501/492-44.66

California

The **Sonoma County Radio Amateurs, Inc.** will hold a swapmeet on 20 September from 7:30 a.m. (vendors 6:30 a.m.) at the Holy Ghost Hall, one mile north of Sebastopol at the corner of Hwy 116 and Mill Station Roads. Breakfast and lunch will be available. Seller spaces are $10/indoors or out, tables are provided for indoor spaces only. For information, contact Rick Reiner, K6ZWB at 2120 Slater St., Santa Rosa, CA 95404; 707/575-4455 or c/o Sonoma County Radio Amateurs, Inc., P.O. Box 116. Santa Rosa, CA 95402.

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The **Livermore ARK** will hold a swapmeet on 07 September from 7 a.m. to noon at Las Positas College, 3033 Collier Canyon Rd., Livermore, CA (Airway Blvd., exit to north of 580 highway). Features include new, used, surplus ham, computer gear, miscellaneous electronics and testing equipment, refreshments available. Admission and parking are free; vendors $10 per space (equals two parking spaces). No VE exams. Contact Noel Anklam at 510/447-3857 (eves.) or 510/783-2803 (days). Talk-in on 145.350(-) PL 100 (receive and send), 147.045(+) PL 94.8, 147.120(+) PL 100.

Connecticut

The **Candlewood ARA** will hold the Western CT Hamfest on 21 September from 9 a.m. to 2 p.m. (setup 7 a.m.) at the Edmond Town Hall, Route 6 in Newtown. Exit 10 on I-84. New equipment dealers, flea market, tailgating, electronics, computers, refreshments. Admission is $4 (under 12 free), tables $10, tailgating $6 (each includes one admission). Tables $10, tailgating $6. Reservations and information to: Bill Schaeffer, N1PJG, P.O. Box 3441, Danbury, CT 06813-3441; 203/798-2831. Talk-in on 147.12(+).

Illinois

The **Chicago FM Club** will hold Radio Expo '97 on 27 and 28 September at the Lake County Fairgrounds in Grayslake, IL at Routes 45 and 120. Located between Chicago and Milwaukee, gates open at 6 a.m. until close on Sunday. Spacious outdoor flea market area and five large buildings for indoor exhibits. Major manufacturers and dealers. Free parking and camping. VEC testing and forums both days. Ladies program. For information, call 708/457-0966 or write CFMC, P.O. Box 56724, Harwood Heights, IL 60656-0724. Talk-in on 146.76(-) PL 107.2.

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The **Peoria Area ARC** will host its Superfest on 20 and 21 September at Exposition Gardens on North-

moor Road in Peoria. Admission is $5/advance for both days. For tickets, contact Stan Ehmke, Ticket Chairman at 900 Ann Eliza, Pekin, IL 61554. An SASE would be appreciated. For general information, contact Jim Williams, P.O. Box 3508, Peoria, IL 61612; 309/692-3378. Booth information/reservations from George Knight, 620 E. Marietta Ave., Peoria Heights, IL 61614.

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The **Bolingbrook ARS** will hold a hamfest on 07 September, from 8 a.m. (indoor setup 3-6 p.m. on the 6th and 6 a.m. the 7th) at the Inwood Recreation Center, 3000 W. Jefferson St. (Rt. 52) in Joliet. Admission is $4/advance, $5/gate. For indoor table availability, call 630/759-7005. VE testing 9 a.m. to noon (walk-ins welcome). For advance tickets send SASE to BARS Hamfest '97, P.O. Box 1009, Bolingbrook, IL 60440. For general information, call the BARS hotline at 708/759-7005 between 6 a.m. and 8 p.m., or tune into the BARS net, Thursdays at 8 p.m. on 147.33(+) or 224.54(-).

Kansas

The **Chanute Area ARC** will hold hamfest on 20 September from 9 a.m. to 1 p.m. in Central Park, south of Main Street on Forest. Admission is $2. Tables free (limit 3). Selling tickets for chance to win prizes. For info, call Mike, KBØBSG, at 316/431-4577, Charlie, WDØAKU, at 316/431-6402 or Jackie, NØSVG, at 316/431-6402.

Kentucky

The **Greater Louisville Hamfest Association** will hold its annual hamfest and the ARRL Kentucky State Convention on 06 and 07 September at the Kentucky Fair & Exposition Center, Louisville, KY. 75,000 square feet and all indoors. Advance/door tickets are $6 for both days, $5 on Sunday. Send advanced ticket registration with SASE. Mail requests for tickets or information to P.O. Box 34444-Q, Louisville, KY 40232-4444. Information for commercial spaces call 812/948-0037; flea market spaces 812/282-4898 or 502/935-7197.

Minnesota

The **Lake of the Woods Repeater Association, Inc.,** will hold a hamfest on 20 September from 1 p.m. (setup 11 a.m.) at Warroad Ara Community Center, 222 Virginia Ave., NE in Warroad. There will be a banquet and program at 5 p.m. (limited to 100 plates, reservations recommended), $12 (includes hamfest entrance). Dealer and flea market tables free with paid admission of $5 if reserved in advance. Send check to David Landby, KBØHAP, Rt. 3, Box 10, Warroad, MN 56763; 218/386-1092. Pick up tickets and table numbers at door. VE exams, bring necessary documents, 2 p.m., walk-ins okay. Talk-in on 147.09(+) and 147.000(-).

Missouri

The **Ozarks ARS** will hold its annual hamfest and potluck dinner on 14 September at the City Park in Monnett. Park entrance is on Highway 37 just south of the intersection of Highways 37 and 60. Admission and 8 a.m. tailgating are free. Potluck dinner at noon. For information, call Joe, KBØRVB at 417/235-8359 or e-mail: nixit@mo-net.com. Talk-in on 146.97(-) or 145.23(-).

Nebraska

The **AK-SAR-BEN ARC** will hold its annual ham radio flea market on 14 September from 8 a.m. to noon at the Millard Social Hall in Omaha. Take I-80 to exit 440 and then three blocks south on Highway 50. Admission and coffee are free! Tables are $5/advance, $7/door. Contact: Dave Kline, WJØZ, 5055 South 87th St., Omaha, NE 68127; 402/592-4930. Visit our web page at: http://ww.probe,net/~aarc/flea. Talk-in on 146.94(-).

New Jersey

The **Delaware Valley ARC** will hold FallFest '97 on 14 September at the Tall Cedars of Lebanon picnic grove, I-95 east to Exit 2-Yardville, South Broad St. to end (3.7 miles), left at yield sign on to Old York Rd., next right on to Sawmill Rd 1.1 miles to hamfest (on right). Admission $5 (non-ham spouses and children free). Tailgate spaces $8 (includes one admission), 8' covered spaces, $15 (limited), includes table and one admission. Electricity available. Advance registration available. For more info: FallFest '97, P.O. Box 7024, West Trenton, NJ 08628. Talk-in on 146.670(-).

New York

The **Metro 70cm Network** will hold an electronic flea market 28 September, 9 a.m. to 3 p.m. (vendor setup 7 a.m.) at the Lincoln High School, Yonkers, NY. Features include free coffee, refreshments, hourly prizes, free parking. VE exams 9 a.m. to noon. Admission is $6, children under 12 free. Limited vendor space is still available. There are more than 100 vendors already registered. For information or to register a vendor, call 914/969-1053. Talk-in on 449.425(-) PL 156.7, 146.91(-).

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The **Saratoga County RACES Association, Inc.** will be holding its 12th annual hamfest on 13 September from 7 a.m. at the Saratoga County Fairgrounds in Ballston Spa (rain or shine, all under cover). Admission $4, which includes 1 tailgate spot — free parking. Door prizes, fox hunt, VE test session and plenty of food. Reserved tables $5 each — first come first served. Reservations and pre-pay welcome and encouraged. For information and reservations, contact Darlene Lake, N2XQG, 84 Wilton Mobile Park, Saratoga Springs, NY 12866; 518/587-2384, packet n2xqg@wa2umx or e-mail lake@capital.net. Talk-in on 146.40(-) and 147.84(-).

North Carolina

The **Union County Amateur Radio Service** will hold its annual hamfest and computer fair on 14 September from 8 a.m. to 4 p.m. at the National Guard Armory, 700 Charles St., Monroe. Features include new and used computers and radio equipment. Free outside tailgating, on-site VE testing by W5YI VEC. Food will also be available. Admission $2 and inside tables $5. Contact Peggy Knight, N4MMM, 2104 Kirby Rd., Monroe, NC 28112; 704/764-7279. In-

ternet e-mail KF4NJ@worldnet.att.net.Packet: KF4NJ@N4ZVN.#MON.NC.USA. NOAM. Talk-in on 145.39(-).

Ohio

The **Findlay Radio Club** will hold a hamfest on 07 September from 8 a.m. (setup at 6:30 a.m.) at the Hancock County Fairgrounds. Features include indoor/outdoor vendors, free parking, forums, overnight camping. Over $6,000 worth of ham gear will be given away. Admission is $5. First table is $17 (which includes admission for one) and additional tables are $12). Make check payable to Findlay Radio Club, Inc., and mail with SASE to FRC Tables, Box 587, Findlay, OH 45839. Talk-in on 147.15(+) and 444.15.

Pennsylvania

The **Butler County ARA** will hold its 20th annual hamfest and computer show on 07 September from 8 a.m. to 3 p.m. at the Butler Farm Show Grounds on Route 68, west of Butler. Admission is $5 (under 12 free). Flea market tailgaters $2 per set-up. Indoor vendors $15 per 8' table. Plenty of free parking. Contact K3LL, 1080 N. Boundry Rd., #C, Cranberry Twp. PA 16066 or call 412/538-9491, e-mail K3LL@nauticom.net

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The **Radio Association of Erie, PA (RAE)** will hold a hamfest on 06 September from 8 a.m. to 2 p.m. (setup 6 p.m. -12 a.m. on the 5th and 5:30 a.m. on the 6th) at the Franklin Township Firehall, near Edinboro and Albion, PA. Admission is $4/advance, $5/door (children under 12 are free), tailgating $1 (plus admission). Tables $8, electricity $2. VE exams 9 a.m. at the Franklin Center methodist Church. For information, contact Chris Robson, KB3A, 4485 Kell Rd., Fairview, PA 16415; 814/474-1211; e-mail crobson@erie.net Talk-in on 146.61(-).

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The **Delaware-Lehigh ARC** will hold their annual hamfest as a 50th anniversary event on 27 September at the Schnecksville Fire Company on PA-309, 4 miles North of US 22. Admission $1. Tailgate $2. No inside spaces, no reservations. Bring the family and a picnic lunch and help us celebrate! Grounds open at 5 a.m. for tailgaters. Talk-in on 146.70(-) repeater.

Virginia

The 1997 **Virginia Beach Hamfest** will be held 20-21 September at the Virginia Beach Pavilion Convention Center in Virginia Beach. Show hours are 9 a.m. to 5 p.m. on the 20th and 9 a.m. to 4 p.m. on the 21st. Load-in and setup is Friday after 1 p.m. No smoking in the Pavillion. Early breakdowns not permitted. For more information, contact Lewis Steingold, W4BLO, 1008 Crabbers Cove Lane, Virginia Beach, VA 23452; 757/486-3800, fax 757/486-0757.

Washington

The **Walla Walla Valley ARC** will hold their 51st annual hamfest 27-28 September from 8 a.m. at the Washington National Guard Armory, 113 S. Colville (on the corner of Colville and Poplar Streets) in Walla Walla. Features include vendors, radio gear, computer equipment, club information, food, free parking and hourly prizes. Admission is $2 (under 16, $1 w/adult under 8 — free). Tables $7.50 ($6 if registered early). Talk-in on 146.96(-), 147.28(+) and 147.50(S).

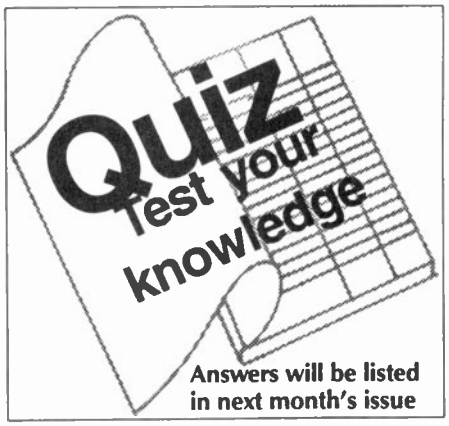
West Virginia

The **Triple States RAC** will hold a hamfest-computer show on 14 September, 8 a.m. to 3 p.m. at Wheeling Park, in Wheeling. Features include two restaurants, one barbecue tent, dealers, fun QLF contest, exhibits, free overnight self-contained RV parking, two flea markets. Admission is $3 (under 18 and women are free). Dealer tables with electricity available, $10. For reservations/information, contact TSARC, 2511 State Highway 250, Adena, OH 43901; telephone/fax 614/546-3930, or e-mail K8AN@aol.com. Talk-in on 146.91(-). **WR**

N6TX Permanent at SETI League

Dr. H. Paul Schuch, N6TX, has signed a five-year contract to become full-time Executive Director of the SETI League Inc. Dr. Schuch has been on sabbatical from his teaching job at a Pennsylvania College the past year in order to serve as the SETI League's Executive Director.

The nonprofit SETI League is devoted to a scientific, privately funded search for extraterrestrial intelligence, and as one of its research projects uses the talents of hundreds of Amateur Radio volunteers in a highly scientific search of the cosmos for signs of extraterrestrial communications aimed at earth. — *via SETI League, ARRL*



The answers for last month's quiz questions are: 228. C; 229. A; 230. B; 231. D; 232. C; 233. A; 234. D; 235. B; 236. B.

237. What class of amplifier is distinguished by the presence of output throughout the entire signal cycle and the input never goes into the cutoff region?
A. Class A C. Class C
B. Class B D. Class D

238. What is the distinguishing characteristic of a Class B amplifier?
A. Output for the entire input signal cycle
B. Output for greater than 180 degrees and less than 360 degrees of the input signal cycle
C. Output for less than 180 degrees of the input signal cycle
D. Output for 180 degrees of the input signal cycle

239. What class of amplifier is distinguished by the flow of current in the output essentially in 180 degree pulses?
A. Class A C. Class C
B. Class B D. Class D

240. What is a Class AB amplifier?
A. Output is present for more than 180 degrees but less than 360 degrees of the signal input cycle
B. Output is present for exactly 180 degrees of the input signal cycle
C. Output is present for the entire input signal cycle
D. Output is present for less than 180 degrees of the input signal cycle

241. What is the distinguishing feature of a Class C amplifier?
A. Output is present for less than 180 degrees of the input signal cycle
B. Output is present for exactly 180 degrees of the input signal cycle
C. Output is present for the entire input signal cycle
D. Output is present for more than 180 degrees but less than 360 degrees of the input signal cycle

242. What class of amplifier is distinguished by the bias being set well beyond cutoff?
A. Class A C. Class C
B. Class B D. Class AB

243. Which class of amplifier provides the highest efficiency?
A. Class A C. Class C
B. Class B D. Class AB

244. Which class of amplifier has the highest linearity and least distortion?
A. Class A C. Class C
B. Class B D. Class AB

245. Which class of amplifier has an operating angle of more than 180 degrees but less than 360 degrees when driven by a sine wave signal?
A. Class A C. Class C
B. Class B D. Class AB

246. What is an L-network?
A. A network consisting entirely of four inductors
B. A network consisting of an inductor and a capacitor
C. A network used to generate a leading phase angle
D. A network used to generate a lagging phase angle

247. What is a pi-network?
A. A network consisting entirely of four inductors or four capacitors
B. A Power Incidence network
C. An antenna matching network that is isolated from ground
D. A network consisting of one inductor and two capacitors or two inductors and one capacitor

248. What is a pi-L-network?
A. A Phase Inverter Load network
B. A network consisting of two inductors and two capacitors
C. A network with only three discrete parts
D. A matching network in which all components are isolated from ground

249. Does the L-, pi-, or pi-L-network provide the greatest harmonic suppression?
A. L-network
B. Pi-network
C. Inverse L-network
D. Pi-L-network

250. What are the three most commonly used networks to accomplish a match between an amplifying device and a transmission line?
A. M-network, pi-network and T-network
B. T-network, M-network and Q-network
C. L-network, pi-network and pi-L-network
D. L-network, M-network and C-network

251. How are networks able to transform one impedance to another?
A. Resistances in the networks substitute for resistances in the load
B. The matching network introduces negative resistance to cancel the resistive part of an impedance
C. The matching network introduces transconductance to cancel the reactive part of an impedance
D. The matching network can cancel the reactive part of an impedance and change the value of the resistive part of an impedance

252. Which type of network offers the greater transformation ratio?
A. L-network C. Constant-K
B. Pi-network D. Constant-M

253. Why is the L-network of limited utility in impedance matching?
A. It matches a small impedance range
B. It has limited power handling capabilities
C. It is thermally unstable
D. It is prone to self resonance

254. What is an advantage of using a pi-L-network instead of a pi-network for impedance matching between the final amplifier of a vacuum-tube type transmitter and a multiband antenna?
A. Greater transformation range
B. Higher efficiency
C. Lower losses
D. Greater harmonic suppression

255. Which type of network provides the greatest harmonic suppression?
A. L-network
B. Pi-network
C. Pi-L-network
D. Inverse-Pi network

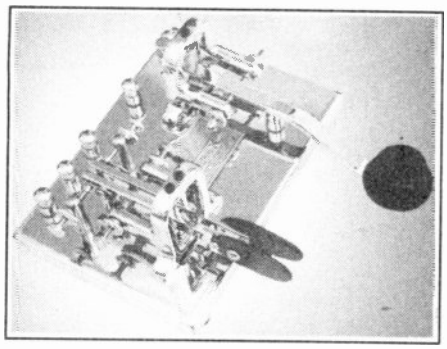
256. What are the three general groupings of filters?
A. High-pass, low-pass and band-pass
B. Inductive, capacitive and resistive
C. Audio, radio and capacitive
D. Hartley, Colpitts and Pierce

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 input 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

More questions next month!

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



Vibroplex® Double Keys

Vibroplex has Double keys! By popular demand, Vibroplex has combined its fabulous Straight Key with the classic Vibrokeyer or the Iambic on one massive steel base. The Double Keys have the famous brass Vibroplex logo plate with a unique serial number, making them the latest Vibroplex collectibles. The Double Keys allow the operator to instantly switch from using an electronic keyer to the personal touch of a Straight Key.

As with all of the Vibroplex keys, the machined Double Key parts are made on a digital milling machine with an accuracy of one thousandth of an inch, or less. This precision in the manufacturing process, along with the careful assembly by Vibroplex's skilled technicians, ensure that you will get a lifetime of use from your Double Key. The first keys manufactured will have consecutive serial numbers. Orders will be filled on a first-come, first-served basis so the early orders will get low serial numbers. These keys, as with all Vibroplex keys, are manufactured in the U.S.

Vibroplex, "the oldest name in ham radio™," can trace its beginning to 1890. Vibroplex manufactures a full line of Morse keys, including the famous "Bug." Vibroplex is owned by Felton "Mitch" Mitchell, W4OA, who is celebrating his 34th year as an active ham.

HI-RES Videos

HI-RES COMMUNICATIONS, INC., introduces some new additions to the famous Collins video library! These are videos pertaining to some of the St. James Gray equipment!

Now, anyone can learn to maintain, repair or restore their own 75A4, KWS1 or R-390A.

The R-390A video is a huge video on a serious piece of old iron! This video is a full 7 hours long. R-390A expert Chuck Rippel, WA4HHG, covers an incredible array of information in this detailed video. Topics covered include "How to pick out a R-390A," its "Modules," "Circuit Description," "Front and Rear Panel Details," "Mechanical and Electrical Alignment," "UPTOs," "Performance Evaluation and Modifications," "Troubleshooting" and "Restoration." There is nothing like this video available today, at any price. This video sells for $109.95.

The long awaited 75A-4 video is 4 full hours of great information on how to repair, maintain and restore this classic receiver. Learn how to Troubleshoot, Modify, Align and Restore your own personal 75A-4. Collins Radio expert Butch Schartau, KØBS, guides you through all aspects of keeping your 75A-4 running like a top. A bargain at $89.95.

The KWS-1 Video is the perfect companion to the 75A-4 Video for owners of the "Gold Dust Twins." KØBS shows you how to operate, maintain and repair your KWS-1. Watch as Butch goes through the entire alignment and neutralization process, after showing you how to properly operate this famous transmitter. This 2-hour video is a must for all KWS-1 owners. Priced at $39.95!

As always, purchasing any three or more videos from the Collins video Library qualifies you for a 10% package discount! Visa and MasterCard gladly accepted!

For mail orders, add $4.50 each for the first two videos for shipping in the U.S. Additional videos are shipped at no extra charge. For more information, contact Floyd Soo, W8RO, HI-RES COMMUNICATIONS, INC., 8232 Woodview Dr., Clarkston, MI 48348; 810/391-6660; e-mail www.rust.net/~hires.

NW Xceiver kits, ZM-1 ATU kit & Ladder Grabber

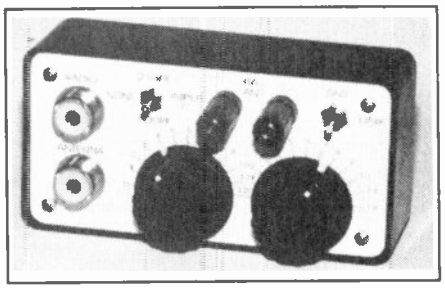
EMTECH announces a new pricing schedule to make things easier when ordering the NW series of monoband CW transceivers for the 80-, 40-, 30- or 20-meter bands. The kits are now sold complete and include shipping viea express mail in the U.S.

The complete kit includes the AF-1 Audio filter and the painted and silk-screened cabinet. The kit still has the high quality parts and "test as you go" instructions as before, and the 8-to-1 vernier main tune capacitor allows coverage of the 80- and 40-meter Novice bands. A dial decal is supplied for the band in use. All this for $130!

Additions to the product line of monoband QRP transceivers are the "ZM-1" ATU kit and the "Ladder Grabber" for use with 450-ohm ladder line.

The ZM-1 is a QRP only ATU rated at 15 watts maximum. It is a new type of ATU unlike any other ATU on the market today. There is no inductance to switch, just two capacitors to adjust. So how can it work?

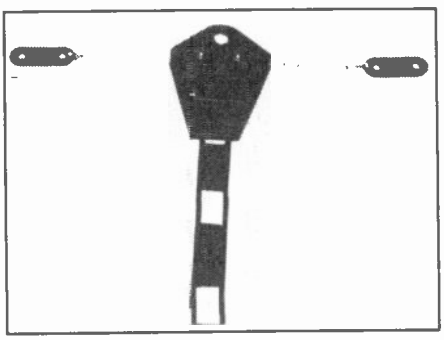
ZM is short for "Z Match." The Z Match is not new, it's been around for many years and has had many improvements. The ZM-1 incorporates



the latest improvement which has been referred to as the single coil Z Match. It uses a toroid inductor with fixed taps for the input and matching circuits. The output is a link for balanced output, so no need for a balun. But it will also tune out coax mismatches. The tuning is extremely sharp and since there is no inductance to select, the tuning is very fast. A 1:1 match is normal most of the time.

The ZM-1 tunes just about any antenna from dipoles, loops, long wires, short wire verticals, from 80 to 10 Meters. It works with single wire feeds, coax, open wire feeders etc. In comparison tests with other popular tuners, the ZM-1 surpasses most of the popular types in overall efficiency and tuning range.

The kit has easy-to-follow pictorial instruction; all parts are furnished. The price is $45 with $5 S&H.



The "Ladder Grabber" is a unique addition to an antenna fed with 450-ohm Ladder line. Breakage from wind has been a problem in the past, and the method used for connections stops the breakage problem. The plastic used has a high resistance to UV rays and will support 150 lb. It has been tested at 1 kW. All hardware is stainless steel for long life. It has been used with dipoles, inverted Vs, Loops, etc. The price is $6 plus $1.75 S&H.

For more information on complete line of products, send an SASE, or order direct from: EMTECH, 3641A Preble St., Bremerton, WA 98312; 360/415-0804, e-mail roygregson@aol.com or visit our web page at http://www.isomedia.com/homes/starbuck/emtech.htm

Spectrum Display Kit

JPS Communications, Inc., is pleased to announce the availability of the new Spectrum Display Kit SPEC-12 for the N1R- 12 Noise/Interference Reduction and Filter Unit. The SPEC-12 is a software and hardware kit that adds an audio spectrum analyzer function to the NIR-12. The complete SPEC-12 kit consists of a SPEC-12 SPL kit, which includes a 3.5" disk of personal computer (PC) software, a new PROM for the NIR-12, and the SDK-12 kit for the N1R-12. The SDK-12 provides a hardware serial port with which to send spectrum data to an unused serial data port on the PC for display. The PC software will run on either DOS or Windows on a 486 or faster PC. A 386 PC may be used if it has a math coprocessor.

Using the Fast Fourier Transform built into the NIR-12, the SPEC-12 turns your PC into a sophisticated audio spectrum analyzer capable of displaying your receiver's audio spectrum from 100 Hz to 3450 Hz. While the SPEC-12 is running, the full functionality of the NIR-12 is retained, so the displayed spectrum shows the effects of the N1R-12's noise reduction, tone removal and bandwidth filter controls on received signals.

Control of the SPEC-12 is via the Function keys on the PC keyboard. Resolution may be toggled between 15 Hz and 30 Hz; display may be linear or logarithmic; display may be frozen; displayed signal may be displayed raw or smoothed. The display rate is 3 or 6 frames per second, as determined by the resolution key. The display dynamic range is 50 dB.

The SPEC-12 is available from the factory for $75, including shipping within the continental US. For those users who already have the SDK-12 kit, the SPEC-12 SP portion is available for only $40, including shipping. JPS Communications, 5720M Capital Blvd., Raleigh, NC 27616; fax 919/790-1456.

MFJ-281 *Cleartone*™ speaker

MFJ proudly announces the MFJ-281 *ClearTone*™ Communications Speaker for SSB, FM, AM, and CW . . . only $9.95!

Plug in this MFJ *ClearTone*™ communications speaker and bring out communication speech fidelity that you never knew existed.

The MFJ-281 communication speaker will restore the smooth sound of sine waves that CW naturally generates and make it far easier to copy. Small built-in speakers of transceivers can't deliver this kind of tonal quality.

MFJ's exclusive *ClearTone*™ Communications Speaker was carefully designed to improve the intelligibility of speech in the frequency range of 600 to 4000 Hz while reducing undesirable noise, static and hum.

A top grade 3-inch Mylar cone speaker is mounted in a well designed speaker baffle. A fine mesh metal grille allows sound to radiate without being muffled. Versatile swivel mounting bracket lets you direct the sound where you want it.

The MFJ-281 will handle 8 watts, 8 ohms. It comes with a six-foot cord and 3.5 mm mono plug. Speaker measures just 3¾" x 3" x 2¼".

MFJ-281 *ClearTone*™ Communications Speaker is covered by 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 Road, Starkville, MS 39759.

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 October, please have the information to us by mid-July.

Worldradio, 2120 28th St., Sacramento, CA 95818.

Please mark the envelope "VE Exams."

List the location (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 pref. = w/i preferred to p/r
w/i = walk-in only

State	City	Contact	Notes
Alabama			
10/07/97	Mobile	David, WA4VAC 205/649-5229	
Arizona			
10/11/97	Tucson	Joe, K7OPX 520/886-7217	w/i
Arkansas			
10/11/97	Siloam Sprgs	Mike, KJ5OP 501/524-8090	p/r
California			
10/29/97	Anaheim	Robert, AC6JM 310/429-8275	p/r pref.
10/11/97	Brea	Robert, KD6DA 310/691-1514	p/r
10/05/97	Chico	Jackie, W6YKU 916/342-1180	p/r pref.
10/23/97	Colton	Harold, AB6RN 909/825-7136 or 909/685-6073 (eves.)	
10/05/97	Concord	Gene, WW6H 510/254-5090	w/i only
10/25/97	Culver City	Scott, K6PYP 310/459-0337 or Dave N3BKV 818/559-2572	w/i
10/11/97	Culver City	Clive, AA6TZ 310/827-2538	p/r pref.
10/04&18/97		CupertinoEmmett, AE6Z 408/243-8349	w/i only
10/18/97	Downey	Wes, KA3DSE 310/923-5598	p/r pref.
10/29/97	Escondido	Harry, WA6YOO 760/743-4212	p/r
10/31/98	Escondido	Harry, WA6YOO 760/743-4212	p/r
10/16/97	Ftn. Valley	Allan, AB6UB 714/531-6707	p/r pref.
10/07/97	Fremont	Dennis, K6DF 510/791-0954	w/i only
10/05/97	Hanford	Carleton, AA6GZ 209/924-4221	w/i only
10/04/97	Lake Isabella	HOTLINE 619/379-2947	p/r pref.
10/18/97	Long Beach	Donald, NN6Q 310/420-9480	p/r pref.
10/20/97	Mission Viejo	Louis, 714/951-0336	p/r
10/11/97	Murphys	Lynn, AC6CY 209/736-4337	p/r pref.
10/14/97	Palm Desert	Don, W6EEN 760/345-8780	p/r pref.
10/25/97	Pomona	Don, WA6HNC 909/949-0059	p/r pref.
10/18/97	Redwood City	Joe, KB6OWG 408/255-9000	w/i only
10/12/97	Sacramento	Dick, N6DK 916/383-2113	p/r
10/11/97	San Pedro	Elvin, N6DYZ 310/325-2965	p/r pref.
10/08/97	Santa Ana	Red Cross 714/835-5381 x140	w/i
10/18/97	Stockton	Mark, W6DKI 209/465-7496	w/i
10/11/97	Sunnyvale	John, KG6XF or Gordon, W6NW 408/255-9000	w/i only
Colorado			
	All Colorado	Exam recording 303/360-7293	
10/11/97	Denver	Glenn, WØIJR 303/366-0155	w/i pref.
10/04/97	Littleton	Dave, NØHEQ 303/795-5718	w/i pref.
Connecticut			
10/16/97	Trumbull	Kevin, N1KGM 203/268-5015 or Bob, KA1ZMF 203/933-9587	
Florida			
10/09/97	Ft. Myers	Norm, AF4AZ 941/694-2505	w/i
10/18/97	Melbourne	Bill, WB9IVR 407/724-6183	p/r pref.
10/11/97	Panama City	Al, NZ5W 904/235-0186 or Charles, N4DPU 904/785-0449	
10/23/97	Pensacola	Steve, KO4TT 904/968-1092	
10/16/97	Vero Beach	Roger, K4RS 561/567-3979	w/i
Idaho			
10/11/97	Boise	Lem, W7JMH 208/343-9153	w/i pref.
10/12/97	Grangeville	Larry AB7GY 208/983-2163	w/i pref.
Illinois			
10/18/97	Morton	James, NT9C 309/266-6756	p/r pref.
10/11/97	Oak Forest	David, NF9N 708/448-0580	p/r pref.
Indiana			
10/11/97	Chesterton	Bill, N9SLQ 219/762-2887	w/i pref.
10/05/97	Terre Haute	Fred, K9EBK 812/466-2122	p/r pref.
Iowa			
10/25/97	Council Bluffs	Lorraine, AAØBS 712/322-1454	p/r pref.
10/18/97	Mt. Pleasant	Fred, WCØA 319/385-7458	p/r pref.
Maine			
10/01/97	Brunswick	Steve, WZ1J 207/725-5155	p/r pref.
Maryland			
10/28/97	Annapolis	Lois, KA3VVQ 410/647-4178	p/r pref.
Massachusetts			
10/18/97	Melrose	Scott, WB1F 617/665-7654	p/r pref.
Michigan			
10/11/97	Houghton	George, W8FWG, 906/337-2542	p/r pref.
Nevada			
10/18/97	Reno	Steve, W7VI 702/972-3672	p/r
10/11/97	Reno	Don, W7FD 702/851-1176	p/r
New Hampshire			
10/18/97	Rochester	Bill, K1BD 603/742-0130 or Fred, K1ACL 603/332-9107	w/i pref.
New Jersey			
10/16/97	Bellmawr	Diane, N2LCQ 609/227-6281	w/i
10/11/97	Cranford	Hotline 201/377-4790	w/i pref.
10/08/97	Ft. Monmouth	Jerry, WB2GYS 908/532-5354	p/r pref.
10/06/97	Sayreville	Larry, N2ELW 908/390-5857	w/i pref.
New York			
10/14/97	Bethpage	Bob, W2ILP 516/499-2214	w/i pref.
10.26.97	North Lindenhurst (Great South Bay ARC Hamfest)	Tom, KA2D 516/422-9594	w/i
10/05/97	Yonkers	Emily, AC2V 914/237-5589	p/r pref.
Ohio			
10/04/97	Cincinnati	Herb, WA8PBW 513/891-7556	p/r pref.
10/11/97	Van Wert	Robert, KA8IAF 419/795-5763	p/r pref.
Oregon			
10/18/97	Medford	Paul, KE7VO 541/878-3433 or Rick, KG7PX 541/779-3404	p/r pref.
10/08/97	Roseburg	Dick, AA7GC 541/672-7564	p/r pref.
Pennsylvania			
10/04/97	Erie	Norma, W3CG 814/665-9124	w/i only
10/02/97	Philadelphia	Dusty, ND3Q 215/879-0505, 215/448-1139(tape)	p/r pref.
Rhode Island			
10/13/97	Providence	Judy, KC1RI 401/231-9156 Al, NN1U 401/454-6848	w/i pref.
10/25/97	Slatersville	Bob, W1YRC 401/333-2129 or 401/333-2373	
Texas			
10/04/97	Brownsville	Bob, K5VC 210/542-7449 (days) or 210/546-4779 (eves)	p/r pref.
10/18/97	El Paso	Clay, K5TRW 915/859-5502	w/i
10/09/97	Ft. Worth	Ted, AB5QU 817/293-6745	p/r
10/14/97	Houston	Harold, ND5F 713/464-9044	p/r pref.
Vermont			
10/12/97	Essex Jct.	Mitch, W1SJ 802/879-6589	p/r pref.
Wisconsin			
10/04/97	Hudson	Greg, KB9JHL 715/386-9857	w/i pref.
10/04/97	Racine	Bob, WØWLN 414/886-8551	p/r pref.

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• Sell • Inform

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Private rate: 20¢/word, prepaid.

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AUTO-CALL MAGAZINE, official journal of the Foundation For Amateur Radio, a federation of over 80 clubs in the greater Baltimore/Washington DC area. Great coverage of FCC, ARRL, VEC, Public Service and club activities in the area. A must for those even passing through the area. For a sample copy write FOUNDATION FOR AMATEUR RADIO , P.O. Box 7612, Falls Church, VA 22046-7612. F198

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WANT A HISTORY OF YOUR AMATEUR CALL? Name and address of each prior holder since 1912, for $20. BOB ARROWSMITH, K4JN, P.O. Box 166, Annandale, VA 22003; 703/560-7161. 2-997

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New Jersey TVI lawsuit appealed

Neighbors who failed in an effort to sue New Jersey radio amateur Walter Kornienko, K2WK as a nuisance for interfering with their TV and other home electronics have appealed the case to a higher court.

In April, New Jersey Superior Court Judge Reginald Stanton said federal law prevented him from declaring Amateur Radio interference a nuisance in the case against Kornienko. The plaintiffs, Kornienko's next door neighbors Leopold and Karen Korins, have now appealed what they see as an unfavorable decision against them to the New Jersey Superior Court's Appellate Division.

Bob Shelton, N2EDF, a retired New Jersey judge acting as an advisor in the case, says that in remarks made in court before rendering his decision, Judge Stanton said that Kornienko was operating legally and properly. Also, if not for the federal preemption issue, he would first require the Korins to take measures to prevent the RF interference in their home before restricting Kornienko's hamming activities.

Shelton said members of the Sussex County Amateur Radio Association purchased filters to alleviate the RFI, but the Korins refused to let the club members install them. Shelton also said that Karen Korins' negative remarks in court about Kornienko's antenna towers led him to believe that the issue goes beyond RFI.

Kornienko, an avid contester, already has spent more than $10,000 on legal fees in the suit. He has permission from the township for his 48- and 90-foot towers. He also has some verticals on his property. The Kornienkos live on 3.5 acres on a hilltop in a rural section of Sussex County in New Jersey's northwestern corner.

The ARRL has agreed to seek to file a friend-of-the-court brief in the appeal. A defense fund has been established to help K2WK pay his legal expenses in this ongoing case. *— via This Week in Amateur Radio, Hudson Division Loop*

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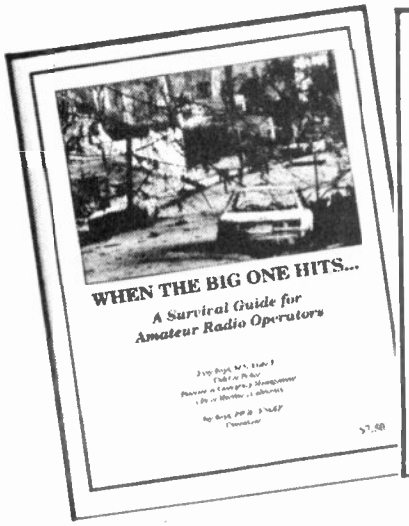

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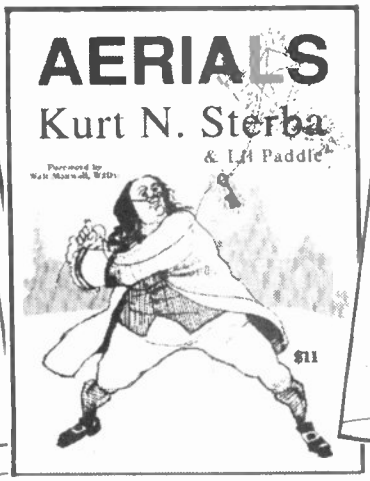

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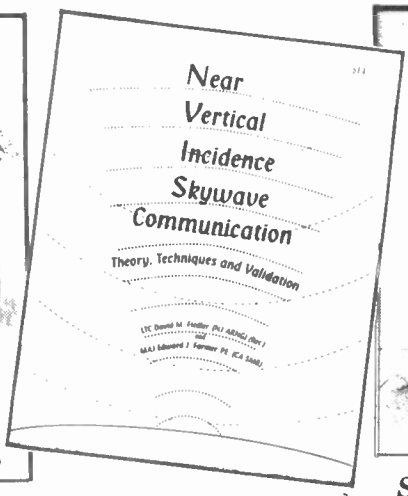

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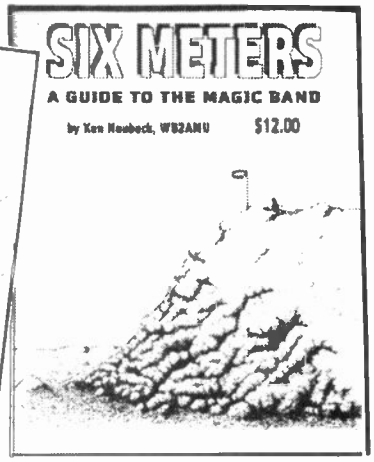

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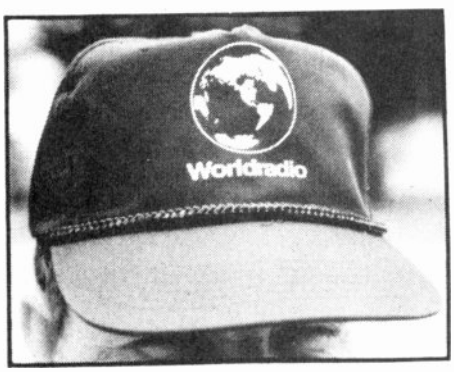

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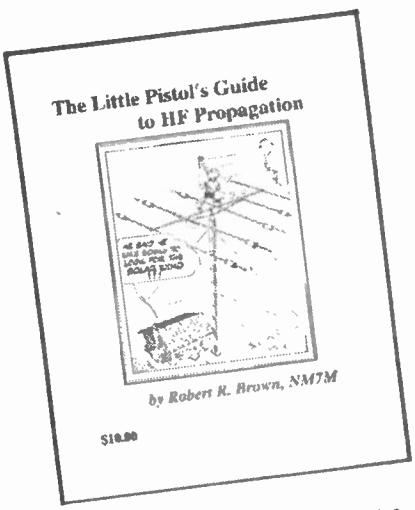

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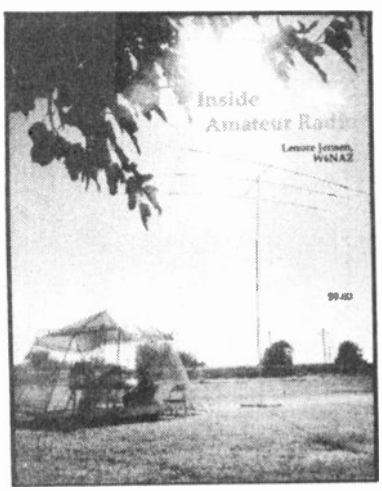

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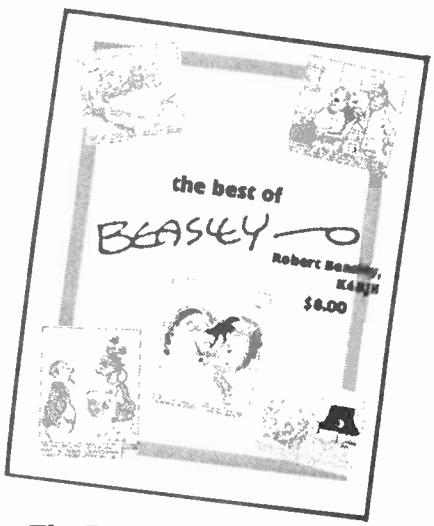

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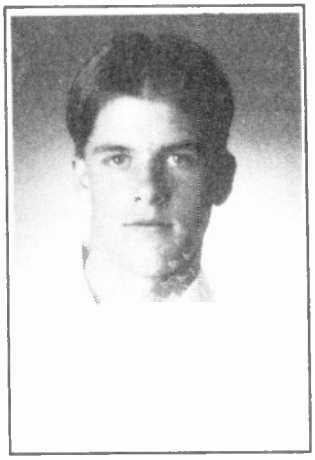
Young Ham of the Year Award to Brian Mileshosky, N5ZGT



Brian, N5ZGT, *Newsline* Young Ham of the Year

Brian Mileshosky, N5ZGT, author of ***Worldradio***'s Youth Forum, has been selected as the 1997 recipient of the *Newsline* Young Ham of the Year Award. Brian, 17, is the son of Janet and Patrick Mileshosky, of Albuquerque, New Mexico. He is a General Class licensee, and earned his first license at age 12. He will enter the university of New Mexico this fall, enrolling in the School of Engineering.

Joe T. Knight, W5PDY, the ARRL Section manager for New Mexico, wrote to the selection committee that he had the opportunity to know and observe Brian "...in his enthusiastic quest for knowledge ...in the varied areas of Amateur Radio, engineering and science ...and his support of young people all over the state of New Mexico." He futher related that Brian has "...been involved in many search and rescue missions, as well as numerous public service events. He has also established a packet radio user's group, and controls a packet relay station which he maintains 24 hours a day."

N5ZGT is active on all bands and modes excepting SSTV, satellites and microwave. He has a particular affinity for QRP operations, and has been part of record-setting, long distance QSOs. As ***Worldradio***'s youth columnist, Brian has encouraged other young people to find their own place in the hobby, and in fact has served as "Elmer" to many younger boys and girls.

An enthusiastic member of Boy Scouts of America, Brian is now an Eagle Scout, and Post President of Explorer Post 296, and a member of the Order of the Arrow. In addition to serving as Post President, he was Senior Leader in the 1997, National Jamboree Troop 741.

Among Brian's additional accomplishments are his participation in varsity track and field in high school, the donation of some forty-plus hours of service to Habitat for Humanity in early 1997, and working with his school's science club in the construction of a radio telescope.

The telescope project points to another of Brian's interests, astronomy. His present plan is to earn a bachelor's degree in electrical engineering, then to aim for a masters degree, with the hope of then one day qualifying to become an astronaut.

As winner of the *Newsline* Young Ham of the Year Award, Brian will receive a trip to Spacecamp in Huntsville, Alabama. He will also receive free transportation and lodging to attend the Huntsville Hamfest August 16-17, where he will receive a plaque commorating his award at the Saturday evening banquet. This year, the plaque will be donated by Dave Bell, W6AQ. Corporate underwriting of the award is by CQ Publishing and Yaesu USA Corporation. **WR**

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