

K6YQT

PAARA NEWSLETTER
VOLUME 49 NUMBER 6 June 2000

W6OTX



PAARAGraphs

Celebrating 63 years as an *active* ham radio club—*Since 1937*
Newsletter for the Palo Alto Amateur Radio Association, Inc.



CALENDAR



- June 2, PAARA Meeting, 7:30,
Menlo Park Recreation Center
700 Alma Street, Menlo Park
- June 7, PAARA Board Meeting, 7:30
Red Cross Bld., 400 Mitchell Ln., Palo Alto
- July.....7, PAARA Meeting, 7:30
- July....12, PAARA Board Meeting, 7:30
- Aug....12, Foothill Flea Market, PAARA sponsored
2 m CODE PRACTICE, 2000 to 2030 PST Tues
N6NFI 145.23 repeater
Also try 7.100 for 24 hr code practice

PROGRAM



June 2, 2000
7:30 P.M.

Speaker:

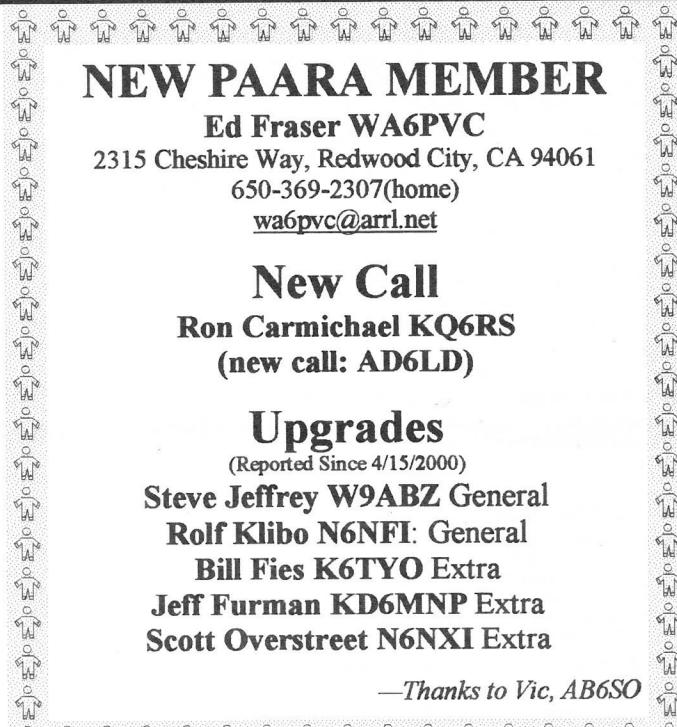
DeWayne Hendricks WA8DZP

"Future of Digital Communications."

Join us for pre-meeting eyeball

6 pm— at Su Hong Restaurant , 1039 El Camino Real, Menlo Park

PAARA Radio NET every Monday evening at 8:30 P.M..local time—
on the 145.230 - 600 MHz repeater, PL tone off



NEW PAARA MEMBER

Ed Fraser WA6PVC
2315 Cheshire Way, Redwood City, CA 94061
650-369-2307(home)
wa6pvc@arrl.net

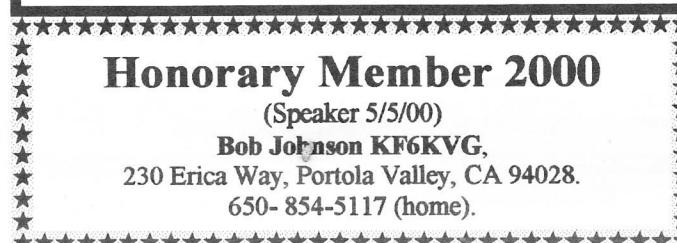
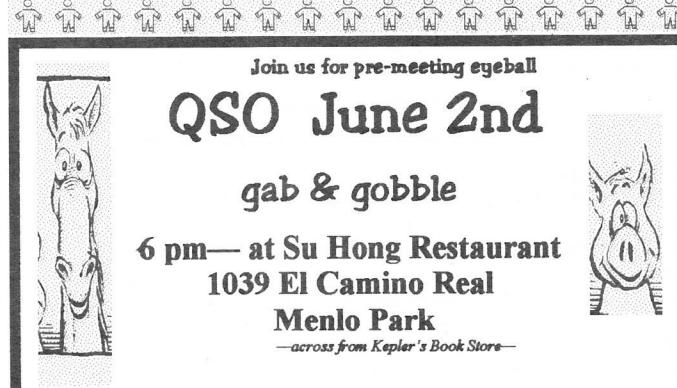
New Call
Ron Carmichael KQ6RS
(new call: AD6LD)

Upgrades

(Reported Since 4/15/2000)

Steve Jeffrey W9ABZ General
Rolf Klibo N6NFI: General
Bill Fies K6TYO Extra
Jeff Furman KD6MNP Extra
Scott Overstreet N6NXI Extra

—Thanks to Vic, AB6SO



Miscellaneous Dates

Flea Market at Foothill (info at: <http://joslin.com/FleaMarket>)
 June 10th, WVARA

PAARA Palo Alto Amateur Radio Association
 meets 1st Friday 7:30 each month, Net 145.230 each Monday 8:30,
 contact: Andreas Junge N6NU.....(650) 233 0843

EMARC Electronics Museum Amateur Radio Club
 meets 4th Friday 7:30 each month,
 contact: Sheldon Edelman 650-858-2176, Edelman@richochet.net

NCDXC Northern California DX Club
 meets 2nd Friday 7:30 each month, repeater for member info 147.360, Thur 8:00PM,
 contact: Bob Mamarella KB6FEC 408 729 1544.

NorCalQRP Northern California QRP Club
 meets 1st Sunday each month,
 contact: Jim Cates 3241 Eastwood Rd., Sacramento, CA 95821.

Perham Foundation,
 contact: Jerry Tucker WA6LNV 650-961-3266

SPECS Southern Peninsula Emergency Communication System
 meets each Monday 8:00PM on Net 145.27, 440.80 MHz, www.specsnet.org
 contact: Tom Cascone, KF6LWZ, 650-688-0441, specsc@svpal.org

SCARES South County Amateur Radio Emergency Service
 meets 3rd Thursday 7:30 each month, San Carlos City Hall.
 Net is on 144.45 & 444.50 (PL-100) 7:30 Monday evenings.
 contact:

SCCARA Santa Clara County Amateur Radio Association
 Operates W6UU repeater 146.385+ Nets: 2m, W6UU, 7:30 Mon; 10m,
 28.385, 8:00 Thur. meets 2nd Mon each month.
 contact: Jack Ruckman AC6FU

SVECS Silicon Valley Emergency Communications
 Operates WB6ADZ repeater (146.115 MHz+)
 contact: Lou Stierer WA6QYS 408 241 7999

WVARA West Valley Amateur Radio Association
 operates W6PIY repeater 147.39+, 223.96, 441.875, 1286.2
 meets 3rd Wed every month.
 contact: Glen Lokke Jr. KE6NBO at 408 971 8626, or glokke@pacbell.net

Disaster Services.

PALO ALTO CHAPTER, American Red Cross
 Meets 3rd Wed. each month 7:30PM,
 HF, packet, BBS, ATV, OSCAR Gateway, NASA satellite,
 contact: Alan Ball 650-688-0423.

SAN JOSE CHAPTER, American Red Cross
 contact: Scott Hensley KB6UOO, 408 249 7093, fish@richochet.net

VE Exams, 3rd Saturday each month, 11AM, 145.23- PL=100Hz
 American Legion Hall, 651 El Camino Real, R.C.
 contact: Al Montoya at WB6IMX@worldnet.att.net.

Contest Calendar

~Vic Black, AB6SO~
 (for rules and exchanges, see www.contesting.com)

June, 2000

- 3,4 WW South America CW Contest 0000Z, Jun 3 - 1600Z, Jun 4
- 3,4 IARU Region 1 Field Day, CW 1500Z, Jun 3 - 1500Z, Jun 4
- 3 QRP TAC Sprint 1800Z - 2359Z, Jun 3
- 10,11 ANARTS WW RTTY Contest 0000Z, Jun 10 - 2400Z, Jun 11
- 10 Portugal Day Contest 0000Z - 2400Z, Jun 10
- 10 QRP Day Contest 0700Z - 1200Z, Jun 10
- 10 Asia-Pacific Sprint, SSB 1100Z - 1300Z, Jun 10
- 10,11 TOEC WW Grid Contest, SSB 1200Z, Jun 10 - 1200Z, Jun 11
- 10-12 ARRL June VHF QSO Party 1800Z, Jun 10 - 0300Z, Jun 12
- 17,18 All Asian DX Contest, CW 0000Z, Jun 17 - 2400Z, Jun 18
- 17 Kid's Day Contest 1800Z - 2400Z, Jun 17
- 18 West Virginia QSO Party 1800Z - 2400Z, Jun 18
- 24,25 Marconi Memorial HF Contest 1400Z, Jun 24 - 1400Z, Jun 25
- 24,25 ARRL Field Day 1800Z, Jun 24 - 2100Z, Jun 25

Which bands will we lose? by Vic Black AB6SO
 See page 6, World Radio, May, 2000

Palo Alto Amateur Radio Association, Inc.

PO Box 911

Menlo Park, CA 94026

President	Andreas Junge N6NU.....(650) 233 0843 n6nu@arrl.net
Vice President	Jon Zweig, AD6FX(650) 324 8751 jzweig@pacbell.net
Secretary	Jay Melvin, WA6SBO(650) 747 0639 wa6sbo@arrl.net
Treasurer	Bob Korte, KD6KYT(650) 595 1842 RGK4U@aol.com
Membership	Vic Black, AB6SO(650) 366 0636 vic.black@adept.com , ab6so@smrm.com
W6OTX Station Trustee	Fred Canham, K6YT(650) 948 9238
K6YQT Station Trustee	Gerry Tucker, WA6LNV(650) 326 4908
Property	Gerry Tucker, WA6LNV(650) 326 4908
Badges	Don Trask, KF6JMQ(408) 251 6494
ARES Officer	Lily Anne Hillis, N6PGM(650) 325 5484
Club Historian	Steve Stuntz, K6FS(650) 322 4952
Advertising	Bob Korte, KD6KYT(650) 595 1842
Webmaster	Andreas Junge AD6FQ(650) 233 0843 n6nu@arrl.net

Board of Directors

Charles Grandjean, WD6FAF (408) 739 5185 '00 wd6fafwebtv.net
Doug Schliebus, K1DIT (650) 851 0727 '00 schliebus@aol.com
Don Trask, KF6JMQ (408) 251 6494 '01 trask@shell3.ba.best.com
Joel Wilhite, KA7TXV (650) 325 8239 '01 ka7txv@qsl.net
Gerry Tucker, WA6LNV (650) 326 4908 '01 (see "Calendar" for Board meeting times, visitors welcome)

PAARAGraphs Staff

Editor	Wally Porter, K6URO(650) 494 7038 k6uro@arrl.net
Database	Don Trask, KF6JMQ(408) 251 6494 trask@shell3.ba.best.com
Columns	Vic Black, AB6SO(650) 366 0636 vic.black@adept.com

PAARAGraphs e-mail address: k6uro@arrl.net

Submit material for PAARAGraphs by the 15th

PAARA Website <http://www.qsl.net/paara/>





Beginner's Bulletin

edited by Vic Black, AB6SO

(PAARA has member education responsibilities. This is a new column to help new hams and "I knew but can't remember so well now days". If you have a question, others probably just haven't got around to asking the same. Send questions or responses to Vic or PAARAGraphs. We will try to find an answer. Please remember this is for beginning ham level. Ed.)

Q. What is a PL tone? What does it do?

A. PL ("Private Line") is a trademarked name of Motorola Corporation for a sub-audible tone that allows you to access a repeater. The generic descriptor is CTCSS, which stands for Continuous Tone Coded Squelch System. Notice that repeaters that require CTCSS are not necessarily "closed" repeaters. Also, using the tone doesn't keep others from hearing your transmissions, as "Private Line" might suggest. Since repeaters have very sensitive receivers and often use gain antennas, it's possible for you to access several remote repeaters at the same time if they share the same frequency. Some local Santa Clara Valley repeaters share frequencies with repeaters in the Central Valley, for instance. If the repeaters require different sub-audible tones for access, you will only open up the local repeater and not interfere with more distant repeaters. You may still hear the distant repeater outputs, though, when propagation conditions are right.

Q. What's the difference between CTCSS and DTMF tones?

A. CTCSS, or Continuous Tone Coded Squelch System, sends out a very low level, or subaudible, single tone to a repeater. The repeater will only recognize a signal that incorporates the proper tone, thus avoiding interference from distant users intending to open up another repeater. This is also called by its Motorola trademarked name PL, for Private Line. DTMF means Dual Tone Multi Frequency. This is the same as the "Touch Tone" telephone dial that consists of a matrix of 3 tones arranged vertically and 4 tones arranged horizontally. Two tones sound simultaneously at the intersection of each column and row. Filters decipher those tones as numerals when sending telephone numbers.

Q. I programmed my new HT for the local repeater along with the proper PL tone, but when I key my radio the repeater doesn't respond.

A. After inputting the proper tone, you still must enable, or turn on, the tone. It's possible for the tone to be programmed in without being toggled on. Usually a "T" (for Tone) shows on the display to indicate that the tone is actually turned "on". Also check your repeater offset direction. Some repeaters receive on one frequency and transmit on a lower frequency while others transmit on a higher frequency. Normally, the offset is set automatically by the radio according to the American band plan (it's different in Japan and Europe). Some repeaters use an "odd offset" meaning that they are contrary to convention either in direction or amount of offset. In this case you may hear the repeater output, but it won't hear you if your off-

set is entered incorrectly.

Q. I understand how to create gain from a horizontal antenna by directing the power toward the receiving station. How can you achieve gain with a vertical antenna when it radiates in all directions at once?

A. Gain is achieved with vertical antennas by directing power toward the horizon that would normally go up toward space or down into the ground. Some high elevation repeater antennas direct the power slightly below the horizon to produce gain only in a local area surrounding the base of the repeater location. The gain makes it easy for you to access the repeater locally with your low power HT, but the direction of the gain helps to prevent interference from the high power repeater to distant repeaters sharing the same frequency in other parts of the state. Some high level repeaters have so much gain on the horizon that it's difficult to access them when you're very close to them because you are underneath the main power lobe of the antenna.

Q. I recently made a directed call on the repeater. My buddy didn't answer so I said, "Nothing heard" and gave my call sign. Someone told me I shouldn't say that. What's the problem?

A. There's no need to say "Nothing heard" since anyone who was listening already knows that no one responded to your call. Unproductive chatter annoys others who are monitoring a busy repeater.

Q. I'm new to HF. I tried calling a DX station on SSB and a bunch of rude jammers started yelling, "Up! Up!"

A. It's common for stations in rare locations or on DXpeditions to operate split frequencies. This means that they talk on one frequency and listen on another frequency. Usually they listen about 5 kHz higher (or, up) in frequency than they transmit. If they didn't do that, you'd never be able to hear the rare station because of all the other stations covering up their signals while calling. Most split operations will occasionally announce their listening frequency. Otherwise, you can deduce it by listening for the stations they answer. Always listen on a frequency for awhile before making a call.

Q. I heard someone working a DX station on 40 meters SSB. He gave the DX a 59 report, but I couldn't hear a thing. Was he really working DX, or was he just making it up?

A. Not all countries have the same band plans. Because of that you'll sometimes hear DX SSB stations in the US CW bands. If you listen carefully, they'll often be calling "CQ North America" and will give a listening frequency in the US SSB sub band. If you want to work them, you must transmit on their listening frequency in the US SSB portion of the band, but you must listen for them in the foreign SSB portion of the band. This is called "working split" and is done by using two VFOs. One VFO is set to your transmit frequency and the other is tuned to your receive frequency. A good reference for all US band plans can be found at <http://www.ac6v.com/pagecall>.



PAARA PONDERINGS

de VIC BLACK, AB6SO

ARRL published a book called *Wire Antenna Classics*, a compilation of antenna articles gleaned from other ARRL books and magazines, mostly QST. Now there's a newly released follow-up "More Wire Antenna Classics, Volume 2" (the "More" and "Volume 2" seem oddly redundant). An article by **Rick Olsen N6NR**, describes an 80 - 10 meter broadband collinear curtain array he calls the NRY. Why NRY? Inspiration for the antenna came from PAARA member **Terry Conboy N6RY**, so Rick combined their call sign suffixes, NR and RY, to come up with NRY. Good show, Terry!

Does QRP work in contesting? **Marshall Emm N1FN** reported on his club's 1999 Field Day entry in the May, 2000 issue of 73 magazine (page 12). "The result last year was first place in 2-A, the largest category in Field Day. Not only that, we placed seventh overall. Only six out of the thousands of Field Day stations did better---and we did it with 5W."

The last Region 3 IARU Conference in Beijing agreed to promote June 17 each year as QRP Day. Region 3 Secretary **Keigo Komuro JA1KAB** proposed establishment of an International QRP Field Day, a QRP contest and workshops to distribute reference materials and kits to encourage more efficient use of HF spectrum. We often hear the lament that QRP operators depend on the operating skill of QRO operators in order to make their contacts. Sometimes this is true. More likely the contacts are 2-way QRP since QRPs tend to hang together on the QRP calling frequencies. Who gets the credit for good ears when it's two-way QRP? Is it possible that many QRO operators are nearly deaf? Or maybe a lot of them only work contests when a big signal helps.

Are we on schedule for my prediction that the first Trans-Atlantic 2 meter QSO will be by PSK-31? You decide. May 7 QNEWS-VK reports that **Steve Stephens VK4KHQ** had the first PSK-31 QSO to Japan on 6 meters with **JR9DGU**. Steve was running 10 watts to a quarter wave ground plane and marginal propagation for a distance of 7300 km. Next step is 2 meters.

Word travels fast when something good happens in Amateur Radio. The next advance in PSK-31 has arrived. It's Digipan, an awesome freeware program. Old Timers remember the Panadaptor, a popular receiver accessory during the 1950's. It's cathode ray tube attached to your receiver and allowed you to "see" the spectrum much like a spectrum analyzer. Digipan provides that same capability for PSK-31 with an active tuning dial spanning the width of your computer monitor for the 4 kHz passband. It allows you to "see" up to 80 PSK-31 stations at once. Move your mouse cursor to an existing QSO on the display and click to automatically tune your rig to that frequency, or pick a clear spot and click to call CQ. Your signal will "snap" to the center frequency of a displayed station much like a Computer Aided Design (CAD) graphics program snaps to a grid line. Built-in AFC then tracks the signal. There's no need to use your transceiver tuning control to tune PSK using Digi-

pan. The program, written by **Skip Teller KH6TY** and **Nick Fedoseev UT2UZ**, the author of MIXW32, is available for FREE download at <http://members.home.com/hteller/digipan> DigiPan includes a type ahead buffer, built-in logging software and twenty four operator-configurable macro keys.

At Dayton Hamvention May 19, Small Wonder Labs introduced a \$95 dedicated 20 meter PSK-31 only transceiver kit that makes full use of DigiPan's panoramic capabilities. The kit ("PSK-20") plus a lap top computer with soundboard and free software will put you on this exciting new mode. The transceiver's crystal controlled receiver has a passband 4 kHz wide to receive the whole 14069-14073 spectrum at once to center on the 20 meter PSK sub band. Your computer, and DigiPan, does the selection within that passband using the digital processing built into your Soundblaster board. No interfacing boxes or TNCs are needed. Interconnecting cables are standard, off-the-shelf computer cables available locally. Expect a major upsurge of PSK operations as a result of this one kit. PSK-31 is being used more and more by DXpeditions. Check the nice photo at http://smallwonderlabs.com/swl_psk31.html.

New South Wales State Australian clubs are authorized to use Special Event call sign AX2000 to commemorate the 2000 Sydney Olympic Games. First use was, appropriately, during the March 25-26 CQ World Wide WPX, or Worked All Prefixes, Contest. A worthwhile goal is to collect QSLs from all clubs that use the call sign. Still another Y2K special call sign to look for: TP2000CE on HF SSB, CW, and RTTY from June 9 - 11 as the Council of Europe Radio Club celebrates the year 2000. Your radios are CE certified and now your QSOs can be also.

Israel has a new pending CW requirement that will prohibit sending Morse code faster than 25 words per minute for identification purposes. It's been widely reported, incorrectly, as completely prohibiting high speed CW. The stated intent of the regulation is to give new 5 wpm amateur licensees a fighting chance at understanding station IDs. This doesn't make much sense because low speed operators are unlikely to try to work high speed CW until they develop better skills. It's more likely that the prohibition against high speed CW is because Israeli government monitors can't copy CW faster than 25 wpm. (Hint: use recorders and play it back slowly if needed. There's no charge for that advice). It's unknown at this time whether this rule will apply to repeaters only, or whether it will apply equally to DXers and contesters (not likely to be observed). Since I know that many of our members are slow readers I have typed slowly for their benefit for some time now!

QNEWS-VK for April 19, 2000 quotes **Keith McCarthy VK3JNB**, "The amateurs who are always wishing for the return of the 'Good old days' of Amateur Radio, are always the ones using the latest equipment. Ever notice that?"

Silent Key JI1KIT

Former Japanese Prime Minister, 62 year old Keizo Obuchi, JI1KIT, died May 14th. Obuchi was hospitalized in Tokyo after suffering a massive stroke April 2. He was reportedly in intensive care, in a coma and breathing with the aid of a respirator until his death. Obuchi, who was first licensed in 1975, was a member of the JARL and an enthusiastic Amateur Radio operator.



WEB WANDERINGS

de Vic Black, AB6SO

Did you ever wonder why some Islands on the Air (IOTA) entities are so rare? It should be an easy thing to land a boat and get on the air, right? Well, maybe. First you must pick a destination from over 1,000 IOTA islands

and island groups. Getting there can be a problem. Major expeditions routinely cost hundreds of thousand of dollars, although IOTA expeditions tend to be low budget. Some islands are on private property or are politically disputed. Several years ago, naval forces killed hams trying to land in the Spratly Islands located in the South China Sea. Vietnam, the Philippines, China, Indonesia, Malaysia, Taiwan and Brunei claim the nearly 100 islands with a total land area of less than 5 square kilometers and maximum elevation of 15 feet. DXers recently found that some islands don't exist, even though they are on maps. Satellite photos confirm that several islands are figments of someone's imagination. Global warming is causing ocean levels to rise, turning some islands into submerged reefs. The Maldives, with a very large population, are threatened this way. Tropical storms make other islands dangerous, at best.

Landing on Islands can be physically difficult. Many are too hilly for helicopters. Our PAARA presentation about the Little Diomedes expedition, showed that weather can keep you at bay or weeks or months, even with your goal in sight. High seas and steep cliffs prevent safe landings on some islands. Many are wildlife refuges where antennas aren't allowed because birds might fly into them. Farallon, visible from San Francisco, is in this category. Not only is it a wildlife refuge, but researchers must be lifted from a rubber raft to the island by a crane hanging over great white shark infested waters. Occasionally someone makes it out there for research purposes and carries an HT along. It's a chance to work a very rare one in a rare grid square on 2 meters.

Now comes word of a South African expedition to Elephant Rock, (IOTA AF-085). The complication here is that it's located near the mouth of the Olifants River where large placer miners dredge up alluvial gravel to retrieve diamonds. Interlopers aren't tolerated. Apparently, operators of the ZS31ER expedition Mar 31 through Apr 9 convinced the South African government and the mining company that Amateur Radio operators are too nerdy to steal diamonds. Somehow I managed to be visitor number 1 to their web site at <http://www.qsl.net/zs5ham>.

From VHF Reflector: "A new website has been created by radio hobbyists concerned over a recent government raid at Ramsey Electronics. It appears as if some in the government believe that kits like Ramsey's \$5.95 wireless microphone transmitter are primarily being used for, as the government says, 'surreptitious monitoring'. The government says this is a violation of Title 18, Section 2512 of the Code of Federal Regulations and has carted off tens of thousands of dollars worth of Ramsey's kit inventory.

Now, hobbyists have established the website at: www.thisiswrong.com to discuss the raid and its ramifications on hobby radio. But some hobbyists are afraid to post their views.

They believe that the government is probably monitoring all postings to this site."

Assault rifle-toting agents from the Department of Justice, US Customs and New York State Troopers carted off more than \$30,000 worth of hobby kits. Agents visited the company showroom the previous week pretending to be customers in search of equipment to "bug an office." In an apparent effort at entrapment, they asked how to "increase the power to go farther." They were told correctly, "If you want something like that, you're in the wrong place." It didn't matter. The raid was on.

Some Ramsey kits are sold under private labels by other companies, including Radio Shack, although these kits were deemed by customs agents to be "substantially different." The FCC was not involved and the government isn't prosecuting anyone for illegal use. Rather they are punishing manufacturers and owners for mere possession because they might possibly use the devices to commit some unspecified future crime. Many of the kits are designed for use by Amateur Radio operators, such as 2 meter QRP transmitters used for fox hunts. Amateurs routinely use wireless microphones to feed audio from HTs and headphone-equipped QRP rigs into their car radios, which then act as loud audio amplifiers. The raid is reminiscent of the time recently when a local Sheriff deputy threatened to arrest me for using "illegal monitoring devices" while I was operating mobile in a VHF contest.

Pity W6ABC. When someone needs a generic call sign for an example in an article, they often pick this call. Is the call issued and, if so, who has it? Interesting question. Robert Lewalski lives in Oakland although you may know him by his alias, Jack Friday. Jack hosts the afternoon commute program for San Francisco's AM broadcast station KFRC, 610. He's also worked for WRAW in Reading, Pa; WAEB in Allentown, Pa; KYW from Philadelphia; WEAM in Washington, D.C.; KFI in Los Angeles and in the Bay Area KIOI, KYUU, KLOK, KOIT and KSFX. And you thought with the vanity call sign program, all the other hams changed call signs often! Jack collects and uses vintage Johnson Viking, National, Hammarlund, Collins, Hallicrafters, Heathkit and Gonset gear. His cutting edge QRP rigs include the Elecraft K2, NorCal 20, and Tuna Tin II replica. Future plans call for a camera and radio balloon launch. His web site has a video cam and vintage rig swap page at <http://home.pacbell.net/friday2k/framesethome.htm>.

Thanks to PAARA member Steve Jeffrey W9ABZ for the web site <http://www.qslcard.com/qslcard>. Go here if a station tells you to QSL via eQSL.cc. Create a free QSL card using supplied online software. Without keying in any further information upload a data file from your computer's logging program to create and maintain an online logbook. As a registered user, you may retrieve QSL cards sent in to you and print them on your printer. Contest and award sponsors send the domain name of a verifiable organization to establish a username and password in order to download claimed QSLs for award verification. Send a photocopy of your license to have your QSLs listed with Authenticity Guaranteed. The service saves time, expense and bother of printing and sending surface mail QSLs. Nearly 25,000 amateurs in 100 countries use the service. A

(Continued on page 54) Web Wanderings



Technical Tip

How to Find 6 Meter Openings ® Arnie Coro CO2KK

The 50 MHz or 6 meter "MAGIC BAND", is the ideal environment due to the fact that ionospheric absorption around 50 MHz is extremely low. So here is Arnie Coro's advice to those interested in working 6 meters DX mostly via sporadic-E, but that also applies for F2 propagation. Do what everyone seems to do. After a long period of learning, save time and use the know how acquired by us long time 6 meter operators. (I made my first QSO on 6 meters back in 1959; 16 November to be exact, via F2, with someone in Pomona, CA using AM mode and a 10 watt homebrew rig that whipped all TVs for several blocks around my QTH. But well, that's another story, hi, hi.)

This is the HOW TO:

Monitor 50.125 kHz if you have a rig that does not scan frequencies. 50.125 is the most popular calling frequency in North America. Eventually you will like to call CQ there from time to time to make your contribution to the RF activity. If no one calls CQ, it is difficult to know when the band is open. 50.125 is the number one frequency to call CQ, with a second CQ a good idea on 50.110 kHz.

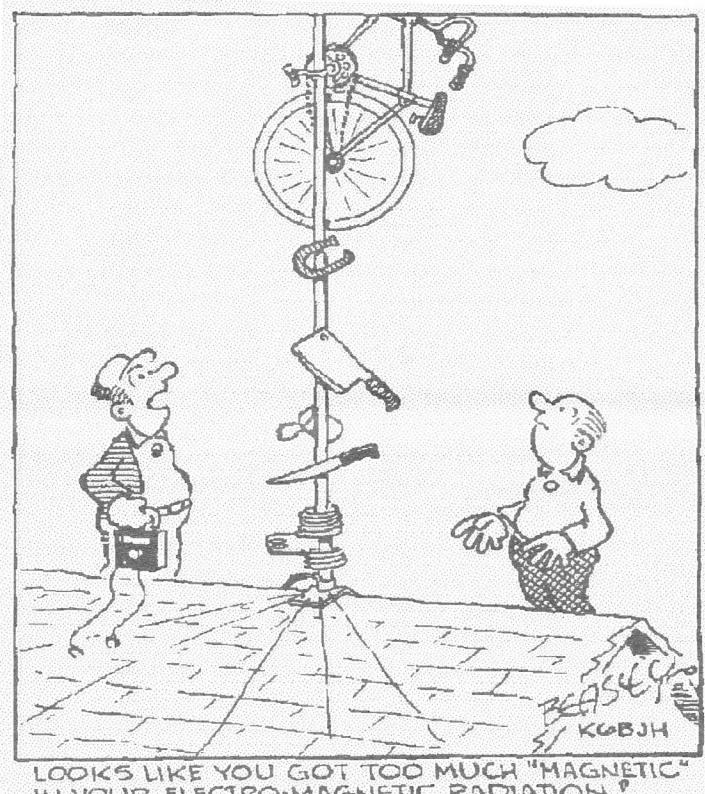
If your receiver has memories and the memories can be scanned, then program the following frequencies: 50.125 kHz (calling 1 of North America); 50.110 kHz (DX transcontinental calling); 50.200 kHz (also used as calling frequency in North America).

You must find a list of 6 meter band beacons, and program their frequencies on your memories. For example, let's say there is a beacon on 50.070 MHz in Mexico City. Program this one in memory and program other beacons' frequencies to as many memories as your rig can scan. If your rig has the ability to scan a segment of 6 meters, say from 50.00 to 50.200 kHz, then by all means use that scanning mode. (I wish I had one that will do this. My old analog SB110A by Benton Harbor's Heathkit can only sit down and wait on 50.125 MHz. It is nice that it is alive after more than 30 + years of service!). If you happen to have an old scanner, then you can program memories of the scanner to well known 40 to 50 MHz frequencies that will show up a rising MUF (maximum useable frequency) as it moves up.

Next, you can add monitoring TV channels 2, 3 or 4, whichever has the weakest signal at your location. Use an old but good condition TV set, connected to a wide band antenna (my VHF TTFD, published in the now defunct CQ-VHF is the ideal antenna for this purpose. I keep an old Russian black and white TV monitoring channel 2. When the local channel 2 is on the air, I look for the venetian blinds interference from co-channel stations beating with the local video carrier. When it's not on the air, then I pick up at least horizontal sync when the band starts to open. The TV receiving antenna is oriented so that the local or near-local channel 2 generates the weakest possible signal. That's the way that you will maximize your chances of seeing the venetian blinds from the TV stations that are coming to the antenna via Sporadic E. If you find one of those Radio

Shack radios that receive TV audio, then channel 2 TV audio on 59.75 MHz is an excellent indicator of 6 meter openings. Although there are many options for sporadic-E, F2 layer propagation indicators are a bit more sophisticated. This involves monitoring TV stations outside the Americas that use 48 MHz or 49 MHz video carriers. Their monitoring has developed into a "science by itself", that is beyond coverage of this very modest contribution to the "witchcraft of finding out when 6 meters is open". The upcoming F2 propagation peak is expected to start by late August or early September 2000. Last but not least, the other amateur bands are a good way of learning about the state of the ionosphere. Short skip on 20, 17, 15, 12, and especially 10 meters, is a surefire indicator of sporadic-E clouds ready to make 6 meters work.

73 and DX Arnie Coro CO2KK



(Continued from page 53) Web Wanderings similar service is at <http://www.theburo.com>. Cost for this one is about 5 cents per card.

After the May PAARA presentation on 47 GHz by Bob Johnson KF6KVG I returned home to find the May QST. The World Above 50 MHz column chart with Claimed North American Distance Records lists Bob and Wil Jensby W0EOM as record holders for 47, 120 and 142 GHz. There are no records higher in frequency than that. The only frequencies listed above 10 GHz are 24, 47, 75, 120 and 142. The article reports the Radio Society of Great Britain Microwave Newsletter as recommending several Web pages with 47 GHz information. Check out www.g3pho.free-online.co.uk, www.geocities.com/SiliconValley/Vista/8063 and <http://www.mm-wave.demon.co.uk/radio.htm>.

® Vic, AB6SO



Thoughts on Restructuring

by Ed Hare W1RFI

What we sometimes fail to realize as amateurs, and as people, I guess, is that the things that we have in common are so much more than the things we do not have in common. As hams, we all share a love of radio and electronics and of antennas and of operating. We all speak the same language and have experienced the same thrill of that first contact and the mystical experience of listening to the very sound of the earth's ionosphere as signals fade in and out in the wee hours of the morning. We all want to see Amateur Radio continue to flourish. We all want to see 40 meters remain a ham band. We all feel excitement if we see a story about Amateur Radio in our local newspaper, or see a callsign on the license plate in front of us.

We all turn our heads as we are driving down the highway and see a tribander tucked in amongst the trees, or standing proud in a Midwest farm field. We all feel proud to be hams when we see one of our astronauts on TV, using Amateur Radio to talk to school kids across the nation, or when we think of just how much Amateur Radio meant to the astronauts stuck on MIR for so many months. We are all so proud when we read about how hams in Florida responded when the big one swept through the state, and all hope that we measure up if our turn comes to be that important to our communities. Sure, we have our differences. Some love code, others hate it; some love QRP, and others do not, but no matter what those minor differences may be, we are all moved by the same magic of Amateur Radio that everyone here knows and understands. And in the face of that magic, the petty differences in opinion about CW testing just seem to melt away.

There is just so much to love and so much to be proud of and so much that is really important that we all share as a common bond. We have all had our say about the restructuring. The FCC has made its decision and nothing about that decision has taken anything away from me or will change one single thing I do within Amateur Radio. What I love about Amateur Radio, and what I love about CW, is all still there, perhaps more alive than ever, bolstered by all the enthusiasm I see with people taking tests and learning more about Amateur Radio. They are building and buying and operating in record numbers. Somehow, in thinking about this enough to write this post, our differences do not seem big enough to argue about, but our common bonds seem strong enough to be cause to celebrate. Let's celebrate each other in the fellowship that has made the Amateur Radio community strong enough to move mountains and to bring back the magic that otherwise would have faded for so many!

-73, Ed Hare, W1RFI

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ULS Filing

Now Available Over the Web

ULS users now can file applications and notifications via the Internet for all services previously only available by dial-up connection to the Commission's Wide Area Network. To access the new capability, visit the ULS home page <http://www.fcc.gov/wtb/uls> and click on "Online Filing." (Users may ignore the on-line survey.) Applicants must first be registered with ULS and use their ULS password to log onto the system. The ULS—the FCC's interactive on-line licensing application, modification and renewal system for wireless telecommunications services—was deployed for the Amateur Service last August 16. ULS also lets users research the status of applications filed in ULS and licenses issued by the Wireless Telecommunications Bureau. WTB Chief Thomas Sugrue said this week that many ULS users had requested the ability to access ULS through the Internet in order to utilize their high speed Internet connectivity. He also addressed concerns about the security of transactions handled via the Internet. "We now have the technology in place that assures the integrity and security of data transmitted over the Internet along with high speed connectivity," he said. "This is another step forward in the expanding functionality of ULS."

The FCC has told the ARRL that making online payments—to file a vanity call sign application and pay on line, for example—requires that users be running the 128-bit encryption version of Netscape Communicator Ver 4.73 or later. The FCC says Netscape 4.7, 4.61 and 4.51 have been tested and are compatible with the ULS. While different browsers and platforms other than Windows-based systems may work for some ULS functions, the FCC currently supports only these recent versions of Netscape for online filing tasks. Netscape 4.6 and versions earlier than 4.51 are not compatible with ULS, however. Filers should configure browsers to enable Java and Java Script and to accept all cookies. Users also will need to download and install Adobe Acrobat Reader 3.0 or later as a plug-in to their Web browser. Netscape and Acrobat are available free via the Internet. ULS support for other browsers and platforms, such as the Mac, is in the works and should be available shortly. The FCC will continue to provide dial-up access to the ULS. Information on making a dial-up connection is available via the ULS home page by clicking on "Connecting to ULS."

Those experiencing problems logging onto the ULS should contact ULS Tech Support at 202-414-1250.—FCC

Thanks ARRL Letter.

Honorary Member 2000

(Speaker 3/3/00)

Rick Ferranti, WA6NCX

(Speaker 4/7/00)

Ronald Ross, KE6JAB

The Electrons will get you:

10 Commandments of Electronics

- 1.** Beware the lightning that lurketh in an undischarged capacitor, lest it cause thee to be bounced upon thy buttocks in a most ungentlemanly manner.
- 2.** Cause thou the switch that supplies large quantities of juice to be opened and thusly tagged, so thy days may be only on this earthly vale of tears.
- 3.** Prove to thyself that all circuits that radiateth and upon which thou worketh are grounded, lest they lift thee to high frequency potential and cause thee to radiateth also.
- 4.** Take care thou useth the proper method when thou taketh the measure of high voltage circuits so that thou doth not incinerate both thee and the meter; for verily, thou hast no account number and can easily be replaced. The meter doth have one, and as a consequence, bringeth much woe unto the supply department.
- 5.** Tarry not amongst those who engage in intentional shocks, for they are not long for this world.
- 6.** Take care thou tampereth not with interlocks and safety devices, for this will incur the wrath of thy seniors and bringeth the fury of the safety officer down about thy head and shoulders.
- 7.** Work thou not on energized equipment, for if you doth, thy buddies will surely be buying beers for thy widow and consoling her in other ways not generally accepted by thee.
- 8.** Verily, verily I say unto thee, never service high voltage equipment alone, for electric cooking is a slothful process and thy might sizzle in thine own fat for hours on end before thy Maker sees fit to end thy misery and drag thee into His fold.
- 9.** Trifle thou not with radioactive tubes and substances, lest thou commence to glow in the dark like a lightning bug, and thy wife be frustrated nightly and have no further use for thee except thy wage.
- 10.** Commit thou to memory the works of the prophets, which are written in the instruction books, which giveth the straight dope and which consoleth thee, and thou cannot make mistakes, sometimes, maybe.

-Author unknown

from Les WB6ORZ
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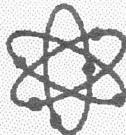


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- Club meetings are on the first Friday of each month, 7:30pm at the Menlo Park Recreation Center, 700 Alma Street, Menlo Park, CA.
- Radio NET every Monday evening, at 8:30pm, on the 145.230-600 MHz repeater, PL tone off.

Membership in PAARA is \$12.00 per calendar year which includes a subscription to PAARAGraphs, \$6 for additional family members (no newsletter).

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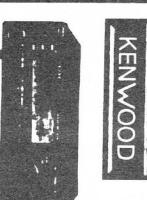
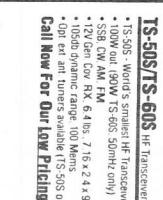
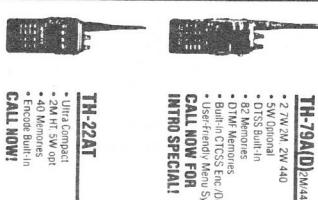
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