



PAARAgraphs

Celebrating 62 years as an *active* ham radio club—*Since 1937*
Newsletter for the Palo Alto Amateur Radio Association, Inc.



CALENDAR

- May.....7, **PAARA Meeting**, 7:30
Menlo Park Recreation Center
700 Alma Street, Menlo Park
- May.....12, **PAARA Board Meeting**, 7:30
Red Cross Bld., 400 Mitchell Ln., Palo Alto
- May.....22, **PAARA PICNIC**
- June.....4, **PAARA Meeting**, 7:30
- June.....9, **PAARA Board Meeting**, 7:30
- July.....9, **PAARA Meeting**, 7:30
- July.. 14, **PAARA Board Meeting**, 7:30
2 m CODE PRACTICE, 2000 to 2030 PST, Tues **W6APZ** 145.23 repeater



PROGRAM

May 7, 1999
7:30 P.M.

Speaker:

(speaker not confirmed at press time)

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

PRESIDENT'S THOUGHTS

—Andreas Junge, N6NU



Dear Members,

Our last speaker was **Ken Silverman, K2KW**, head of the DX Contest Expedition to Jamaica. Ken and his team mates went out to break the world record score for the CQWW CW contest that had been untouched for about 10 years. And they made it! I was impressed by the amount of planing. No rock was left unturned in the search for the optimum configuration. The biggest surprise to me was that only vertical antennas were used. Well, now I do not feel bad about my vertical antenna at home anymore.

I would like to thank **Ron Pantan, W6VG** and his wife **Helga** for inviting us to have the annual PAARA Picnic on May 22nd at their house. Make sure to mark this Saturday in your calendar and please join us to BBQ and have fun. Maybe we will have a mini T-Hunt on the premises like we had last year (Andy: HINT, HINT).

I do not know when PAARA had the last club building project. I thought it was time to become more active in building small and useful projects. Details will be given at the next meeting and additional ideas and comments are welcome.

I hope to see you at the next meeting!


73, **Andreas Junge, N6NU** andreas@atltech.com

Join us for pre-meeting eyeball

QSO May 7th

gab & gobble

6 pm— at Su Hong Restaurant
1039 El Camino Real, Menlo Park
—across from Kepler's Book Store—



Miscellaneous Dates

Flea Market at Foothill (info at: <http://joslin.com/FleaMarket>)

Apr 10 Silicon Valley Emergency Communications Society, (SVECS)
 May 8 West Valley Amateur Radio Assoc., (WVARA)
 June 12 Palo Alto Chapter, American Red Cross
 July 10 Palo Alto Amateur Radio Assoc., (PAARA)
 Aug 14 San Jose Chapter, American Red Cross
 Sept 11 Santa Clara County Amateur Radio Assoc., (SCCARA)
 Oct 9 South Peninsula Emergency Communication System (SPECS)

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 Mammarella 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, 224.36, 440.80 MHz
 contact: Mike Hastings KB6LCJ, 408-243-6745 or 408-249-6909.

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: Dick Collins K6ANN 650-593-8952

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

May Contest Calendar, 1999 Vic Black, AB6SO

(for rules and exchanges, see www.contesting.com)

- 1,2 MARAC County Hunters, CW 0000Z, May 1-2400Z, May 2
- 1,2 10-10 Int. Spring Contest, CW 0001Z, May 1-2400Z, May 2
- 1,2 Massachusetts QSO Party 1800Z, May 1-0400Z, May 2 and 1100Z-2100Z, May 2
- 1,2 ARI International DX Contest 2000Z, May 1-2000Z, May 2
- 8,9 VOLTA WW RTTY Contest 1200Z, May 8-1200Z, May 9
- 8 FISTS CW Club Spring Sprint 1700Z-2100Z, May 8
- 8,9 CQ-M International DX Contest 2100Z, May 8-2100Z, May 9
- 15 EU Spring Sprint, CW 1500Z-1859Z, May 15
- 21-24 Major Six Club Contest (6m) 2300Z, May 21-0300Z, May 24
- 22,23 Texas QSO Party 1400Z, May 22-0500Z, May 23 and 1400Z-2000Z, May 23
- 22,23 Baltic Contest 2100Z, May 22-0200Z, May 23
- 29,30 CQWW WPX Contest, CW 0000Z, May 29-2400Z, May 30

Palo Alto Amateur Radio Association, Inc. PO Box 911

Menlo Park, CA 94026

President	Andreas Junge N6NU.....	(650) 233 0843
	andreas@atltch.com	
Vice President	Jon Zweig, AD6FX	(650) 324 8751
	jzweig@sirius.com	
Secretary	Dave Rice, W6NUC	(650) 593 7840
	w6nuc@arri.net	
Treasurer.....	Doug Schliebus, K1DIT.....	(650) 851 0727
	schliebus@aol.com	
Membership*.....	Vic Black, AB6SO.....	(650) 366 0636
	vic.black@adept.com , ab6so@smrn.com	
Trustee/Property/Badges..	Fred Canham, K6YT.....	(650) 948 9238
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
	andreas@atltch.com	

*New Committee 12/98

Board of Directors

Charles Grandjean, WD6FAF	(408) 739 5185 '00
	wd6fafwebtv.net
John Buonocore, KD6ZL	(650) 366 1658 '99
Terry Conboy, N6RY	(510) 944 5388 '99
	terry.conboyairtouch.com
Steve Stuntz, K6FS	(650) 322 4952 '99
Doug Schliebus, K1DIT	(650) 851 0727 '00
	schliebus@aol.com

(see "Calendar" for Board meeting times, visitors welcome)

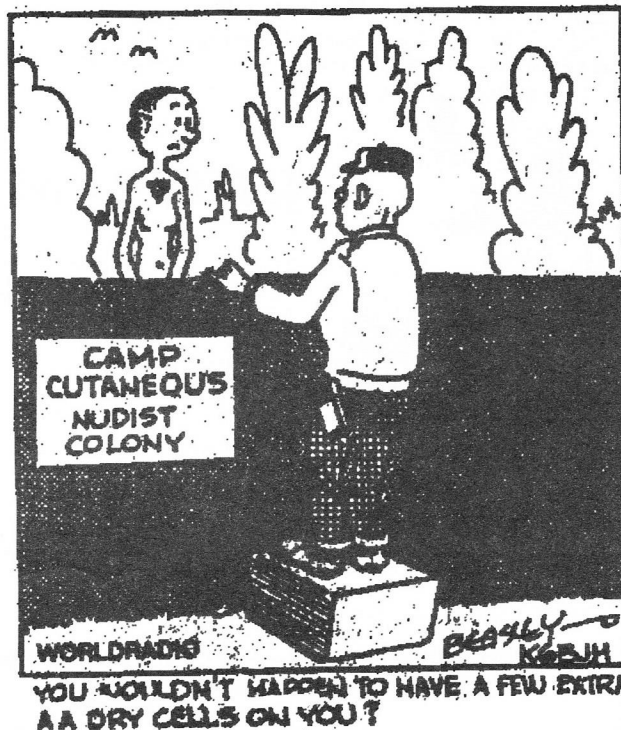
PAARAgaphs Staff

Editor.....	Wally Porter, K6URO.....	(650) 494 7038
	k6uro@arri.net	
Database.....	Don Trask, KF6JMQ.....	(408) 251 6494
	trask@shell3.ba.best.com	

PAARAgaphs e-mail address: wmporter@aol.com

Submit material for PAARAgaphs by the 15th

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





WEB WANDERINGS

de Vic Black, AB6SO

I asked **Jim Reid KH7M** to write a guest column this month on his unique method for increasing CW copying speed and especially learning to copy code in your head rather than on paper. This one's worth reading and re-reading. Refer to it often as you improve your CW skills. It really works. (This was excerpted with Jim's permission from the web site <http://qth.com/ka9fox/index.html> by **Scott Neader KA9FOX**.)

—Vic Black, AB6SO.

Learning High Speed CW

by **Jim Reid KH7M**

You can become a high speed CW operator! How? Practice. What kind of practice? Read on, if, and only if, you really WANT to become a good QRQ (high speed) CW operator; that is, one who is comfortable working DX at 30 to 40 wpm, and want to try to compete in contests with the real ops who whistle along at 40 to 50 wpm, and sometimes even faster. **Nose, KH6IJ**, could accurately read calls during contests sent above 75 wpm, so it is said. **Tree, N6TR**, reports that to be a good SPRINT CW contest operator, you had better be comfortable in a CW rag-chew at 50 wpm! And a lot of ops score pretty high in the CW Sprints.

What is the best, most efficient way to get up to those operating speeds? How best to use the practice time? First, let's assume you are at least at around 13 wpm now, and licensed as either General or Advanced. Both classes of license have access to the same CW bands in all nine of our HF bands. The Extras have some 25 kHz more spectrum on down to the lower end of "only" four of these nine bands: 15, 20, 40, and 80; pretty good incentive for upgrading, should DXing and contesting be of motivating interest to you. So, here is how, and how much, to practice.

Practice Methods

1. Experience on the Air. Lots of CW QSOing outside of contest times works wonders. Put the microphone away for several weeks. Put SSB, SSTV, digital mode operation, or whatever else out of your mind for the same time period. This is to be a time of pure CW skill improvement.

Contesters use computer logging programs which do most of the transmitting for them, as well as the log tasks and duplicate checking. Some programs do even more! But to use them efficiently to contest, you'd better be a pretty good keyboard operator as well, and also know the use of the function keys, without using crib notes or key overlay guides during the 'test. In what follows, both CW and keyboard skills will be addressed.

2. QRQ Receiving Practice. While waiting to acquire and set up some of the practice programs, do on-the-air receiving practice. Find QSOs in progress at a speed you can comfortably pencil/pen copy. Now, put the pen/pencil down, and just

start listening. Yes, try to recognize the letters as they come along, and group them into words on your mind's "blackboard". Not easy to do? Well, keep trying anyway. It is going to take awhile, maybe even three or four weeks before you can follow these easy speed QSOs in your head without writing everything down! Jot down the call, the op's name, QTH and report, while just listening to the rest.

While doing this, if you can find a willing friend, there is a way to augment this sort of practice completely away from CW. Have your friend spell words from a story or newspaper article to you! He is to read the story to you, not the word sounds, but spelling the words to you out-loud. This is what is going on when you are "reading CW in your head"; words are being spelled to you "out-loud", and you must form these spelled words into meaningful thoughts. Start at one letter/word space every second sounded by your helper. Have a letter spoken every tick of the clock. This is a speed of 12 wpm (at the Paris standard of 100 letters/word spaces per minute equaling 20 wpm CW speed). Tune in WWV to get exact beats every second if you like.

When you have no trouble forming the thoughts of the article in your mind as the words are spelled to you at this rather slow pace, then have your friend double the rhythm, that is, two letters/word spaces per second spoken two per tick. This, of course, doubles your word reading rate to 24 wpm. A big jump for CW, but not for learning to read words spelled out to you in clear, plain English!! When you know the story comfortably at this rate, your actual in the head CW reading speed should be close behind, and you may be well on your way to QRQ operation.

At QRQ, you will be receiving letters/word spaces at 3 per second at a 36 wpm CW rate. Maybe your friend can get the rhythm going at 3 letters/spaces per clock tick, and you will know exactly what 36 wpm CW sounds like. This is a typical QRQ DX and contest operation speed. Of course, using a musician's metronome would allow you to exactly set the number of beats per minute; 20 wpm being 100 beats, 36, 180 per minute, 50 wpm, 250 letters/spaces, etc. My mechanical metronome has a highest beat rate of 208 per minute, or a bit over 41 wpm. The best RUFZ scores are being posted up around the 450 plus letters/numbers/spaces per minute! Of course, call signs only are being sent, and these guys already know all the prefix CW sounds! You will learn more about the RUFZ call sign/typing practice program below.

Computer aided CW training programs are available. They will send code groups, random words, text and typical QSOs. They are advertised, nearly monthly, in the ham magazines. Morse Academy (MA) is good, as is Code Master V (CM V). All of the included CW tests which come with MA can be sent by the computer at very high speeds, not just the speeds intended. Of course, they don't last long at high speed, but are very helpful for in-the-head CW reading practice. Using Code Master V, you can input via the keyboard, or text (.txt) file input, kilobytes of text for very long high speed CW listening practice runs. I have taken lots of long text files directly from

(Continued on page 45) Wanderings

(Continued from page 43) Wanderings

various Internet sites and copied it directly into a CM V text file for this sort of high speed practice. I edit out a lot of punctuation marks from the text. I don't want to learn or know the code for quotation signs, semicolons, etc.!

3. Using the Computer for Practice. The apparent purpose by the authors of MA and CM V is to teach the code, from A on up to text speed, assuming you want to use the keyboard to copy what is rcvd. So if you really want to write down what is being rcvd, then by all means use these programs to build up your keyboard skills, ear to key stroke response, to copying behind. These programs can do that for you just fine! But I will show you how to use them to get up to 50 wpm, copying in your head. Now that you have CM V or MA, or another, here is how to use it to become QRQ qualified. We are still talking about methods to read the code mentally, not writing or typing anything down as you receive it. That comes later.

With lots of CW text available in the computer program, you are ready to begin. Once you have determined your present 100% comfortable hand copying speed using pencil or pen, set your computer program to send clear text at about 5 wpm faster than your hand copying speed. Turn on the sending of the text at this speed, sit back, and just listen for 30 minutes, twice per day. First you will only be catching a letter every now and then. When you do, and you will without effort, congratulate yourself. While this happens, you will miss the next several letters! But keep at it. Soon you will get all the letters of a single word. Again, congratulations, as you say the word to yourself, and, again, a lot of letters/words go on by unrecognized! But you are making progress. In a couple of weeks or so, especially if you were able to get a friend to spell the words of stories/text to you, you will be understanding the text being sent. As soon as you do, up the speed another 5 wpm. Keep it up, and in 3 or 4 months, you may be up to 40 or more wpm! Try it. It works, and you will be amazed.

At some point, you must add in the typing and contest program use practice. The RUFZ program already mentioned will send the call signs of the world to you at ever increasing speed. You must enter them correctly via the keyboard to score. PED is a CT simulating pile-up training program. Both TR and NA logging programs have simulator programs built in for training in the use of the program. As I said, PED does the same for CT. These programs you may download at no cost from other sites listed at the KA9FOX web page (for example, from the VE7TCP web site). PED411.zip is available at oak.oakland.edu in the SimTel/msdos/hamradio file. All four of these programs will improve your contest typing skills.

4. CW Sending Practice Helps Loads. Don't practice sending using the keyboard for these practice ideas! Use a bug, or preferably an electronic iambic keyer and paddle set up. The electronic keyer sends "perfect" CW characters, spacing and rhythm, a big help in your mental training activity. Adjust the paddle to very light action. You don't want to be slapping the key all about the table top! Good paddle keys are heavy for this reason. Put it on a mouse pad also to help keep it put.

Now begin practice to send FAST. This sending practice also

works wonders on the way to becoming a QRQ operator. Why? Because, now you must form words to express ideas in your mind, while simultaneously sending the thoughts out as CW. This inverts what has been going on in your mental processes to receive CW. As you increase your speed ability, you will not even be thinking "letter to CW" translation, but will be mentally and automatically sending CW as if it were another language with which you have become quite comfortable. Your mind will be training on CW in such a way that when it can send fast, it will use the same subconscious patterns to also receive fast. KE7V has told me he raised his QRQ speed to 55+ wpm (275 letters/word spaces per minute) using this method specifically!

There is more to encourage you to practice. Once you are going QRQ mentally, and sending QRQ, and typing accurately to a contest logging program, you may want to also practice clear text copying to the keyboard, and copying behind many, many words. Certainly, both MA and CM V are designed to teach just that skill. And then your QRQ mental rate will increase even more, and you can then be a competent, competitive CW Sprint Contest op! All by accomplishing Tree's 50+ wpm rag chew rate.

Have fun, keep the practice up daily and hold daily CW QSOs. You will get there. I'm still working on it and I'm probably older than 90% or more of you reading this!

73 and Good Practice. Jim, KH7M
on the Garden Island of Kauai, Hawaiian Islands.
jreid@aloha.net.



YOU MEAN YOU CAN ACTUALLY TALK TO ALBANIA ON THAT THING? WHY AM I BOTHERING TO STEAL THIS PIECE OF JUNK?

CHANGE:

To:
Dave Bailey, WS6W
2042 Beach Orchard Drive #213
Fall Church, VA 22043

Phone (703) 356-8804

Maidenhead Grid Squares

by Vic Black, AB6SO

You'll need to know your grid square in order to give the proper exchange in VHF/UHF contests. It's becoming common to provide the grid on all VHF/UHF simplex contacts, whether in a contest or not, since many operators will want this information for the VUCC Award (VHF/UHF Century Club) for working 100 or more grids. Add it to QSL cards, as well.

Maidenhead designators are a combination of two letters (the field) plus two numbers (the square). The grids are named for the small village of Maidenhead, near London, where Hams invented the system in 1980. It's much easier to give a location in the Maidenhead system than in longitude and latitude, especially while operating CW. Local SF Bay area grid squares include CM87, CM97 and CM88, each covering an area of about 70 by 100 miles. The grids are slightly larger near the equator and smaller near the poles since the lines of longitude converge at the poles.

A good way to understand the Maidenhead system is to visualize a world map with the equator across the middle dividing north from south and the prime meridian (zero degrees east-west) dividing the map vertically down the middle. From Northern California we could say that we're in the north west quadrant. To make the description more meaningful, the hams who invented the Maidenhead system started at the south pole and international date line and further divided the world into smaller grids.

The first 20 degree by 10 degree rectangle from 180 to 160 degrees west and 90 to 80 degrees south was called "field AA". Eighteen fields were then designated northerly in 10 degree steps through AR to reach the north pole. Then they moved over 20 degrees east to 90 degrees south and 160 east to 140 degrees east and named the fields BA through BR northerly. This was continued on around the earth for a total of 18 fields south to north and 18 fields west to east, ending in field RR. Starting in the south west corner of each field, the fields were then divided into 2 X 1 degree "squares" (0 - 9 easterly and 0 - 9 northerly with longitude listed first, followed by latitude). An excellent explanation with charts is at <http://www.bridge.de/~tom/maiden.htm>.

There are several ways to determine your grid designator:

1. Use a GPS (Global Positioning System) personal navigation receiver to find your position. Most will indicate your location in the Maidenhead system, or you can easily convert from longitude and latitude yourself.

2. Use a grid square map. ARRL sells a grid square map of the US for \$1, available at HRO. You'll also need a local map with longitude and latitude to pinpoint your location so you can convert to grid squares. On the San Francisco Peninsula, CM87 includes the area from 124 to 122 W and 37 to 38 North. Neighboring CM97 extends from 122 to 120 W and 37 to 38 N. Most road maps don't indicate longitude and latitude, but USGS topographic maps or atlases by Rand McNally, Benchmark and De Lorme show them. Many of these maps are now marked "GPS Grids Shown", or something similar.

The "Buckmaster World Wide Ham Call Server", searchable by callsign, is at http://www.buck.com/cgi-bin/do_hamcall and lists longitude/latitude and grid squares. The QRZ! Web page for "The World Radio Amateur Directory", also searchable by callsign, lists only longitude/latitude for the center of the postal ZIP code area. It's located at <http://www.qrz.com/wrad/directory.cgi>.

3. Use a computer or Internet grid square converter. Try the interactive web-based converter "Amsat Grid Square Converter" at <http://www.amsat.org/amsat/toys/gridcon.html>. Enter decimal degrees or degrees/minutes/seconds to convert to grid squares. If you enter a grid square, it will convert to longitude and latitude at the center of the grid. The ARRL Grid Locator requires only the longitude and latitude in degrees to convert to a 4-digit grid square. If you also enter minutes and seconds, it will convert to the more accurate 6-digit grid square designator (the "cell") which is used on the microwave bands and corresponds to a grid of approximately 3 X 4 miles in the continental US. It's located at <http://www.arrl.org/locate/grid.html>.

4. You can easily convert from longitude and latitude to grid squares yourself using this simple method:

Calculating Your Grid Square

Here's a sample using the location of the PAARA Club meetings in Menlo Park. The Recreation Center is located at approximately 122 degrees, 11 minutes West longitude and 37 degrees, 26 minutes North latitude.

Start with the longitude.

1. Divide the minutes portion of the longitude by 60 to convert from minutes to decimal. ($11/60 = .18$)

2. For locations of West longitude, subtract the longitude from 180 degrees. For locations of East longitude, add 180 degrees. ($180 - 122.18 = 57.82$)

3. Divide this value by 20. ($57.82/20 = 2.89$)

The whole number result (don't round up) determines the FIRST character of your grid, as follows: 0=A, 1=B, 2=C, 3=D, 4=E, 5=F, 6=G, 7=H, 8=I, 9=J, 10=K, 11=L, 12=M, 13=N, 14=O, 15=P, 16=Q, 17=R, 18=S.

Choose 2=C for the FIRST character of the grid.

4. For the THIRD character of the grid, multiply this last number by 10.

($2.89 \times 10 = 28.9$). The number immediately BEFORE the decimal point is the THIRD character of the grid.

Choose 8 for the THIRD character of your grid.

Now use your latitude.

1. Divide the minutes portion of the latitude by 60 to convert from minutes to decimal. ($26/60 = .38$)

(Continued on page 47) Maidenhead

(Continued from page 46) Maidenhead

2. If the latitude is north, add 90. If the latitude is South, subtract the latitude from 90. ($90 + 37.38 = 127.38$)

3. Divide this number by 10. ($127.38/10 = 12.73$). The whole number result (don't round up) determines the SECOND character of your grid as follows: 0=A, 1=B, 2=C, 3=D, 4=E, 5=F, 6=G, 7=H, 8=I, 9=J, 10=K, 11=L, 12=M, 13=N, 14=O, 15=P, 16=Q, 17=R, 18=S.

Choose 12=M as the SECOND character of the grid.

4. Multiply this number by 10. ($12.73 \times 10 = 127.3$). The number immediately BEFORE the decimal point is the FOURTH character of the grid.

Choose 7 as the FOURTH character of the grid.

In this example, your grid is CM87.

(The above is formatted in single column for ease in following text and to avoid break up of web sources. Ed.)

ARRL Online

From ARRL Pacific Division: May 1999

Foundation for Amateur Radio Scholarships Available:-

The Foundation for Amateur Radio, Inc., a non-profit organization with headquarters in Washington, D.C., plans to administer sixty-six (66) scholarships for the academic year 1999 to 2000 to assist licensed Radio Amateurs. The Foundation, composed of over seventy-five local area Amateur Radio Clubs, fully funds ten of these scholarships with the income from grants and its annual Hamfests. The remaining fifty-six (56) are administered by the Foundation without cost to the various donors. License Radio Amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college or technical school. The awards range from \$500 to \$2500 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs. Clubs are encouraged to announce these opportunities at their meetings, in their club newsletters, during training classes, on their nets and on their World Wide Web home pages.

Additional information and an application form may be requested by letter or QSL card from the following address.

FAR Scholarships
Post Office Box 831
Riverdale, MD 20738

Applications must be postmarked prior to April 30, 1999. Thanks, FAR.

Dayton Amateur Radio Association Scholarships:

The Dayton Amateur Radio Association is accepting applications for its annual scholarship awards. The DARA Scholarship Program is open initially to any Amateur Radio operator graduating from high school in 1999. There are no restrictions on course of study, nor does the student need to be pursuing a four-year baccalaureate degree, but schools selected must be accredited. Awards are made on a nondiscriminatory basis. Selection criteria include financial need, scholastic achievement, contributions to Amateur Radio, and community involvement. Decisions of the DARA Scholarship Committee are final.

Maximum individual awards are \$2000. For an application and full details, send an SASE to DARA Scholarships, 45 Cinnamon Ct., Springboro, OH 45066. Application deadline is June 15, 1999.

Thanks, Stan Kuck, NY8F.

ARRL Foundation Scholarships Available:-

There are many scholarships available from the ARRL Foundation. Information and applications can be obtained from the ARRL web site at www.arrl.org, by e-mail to foundation@arrl.org, or by letter to the ARRL Foundation at ARRL HQ, 225 Main St., Newington, CT 06111-1494.

Wireless Privacy Bill (HR 514) Passes House:-

The Wireless Privacy Enhancement Act, passed the US House on a vote of 403 to 3 (with 28 not voting). The bill passed by a similar margin last year, but the Senate never acted on it. But for one line, HR 514 is identical to the amended version of last year's HR 2369. The new line, the product of a floor amendment, clarifies that if one "discloses" protected communication without being aware that it was illegally obtained, one cannot be held culpable under the law. HR 514 was introduced by Rep Heather Wilson of New Mexico and co-sponsored by Rep. Eshoo, (CA 14th). It now goes to the Senate.

Coming Events:-

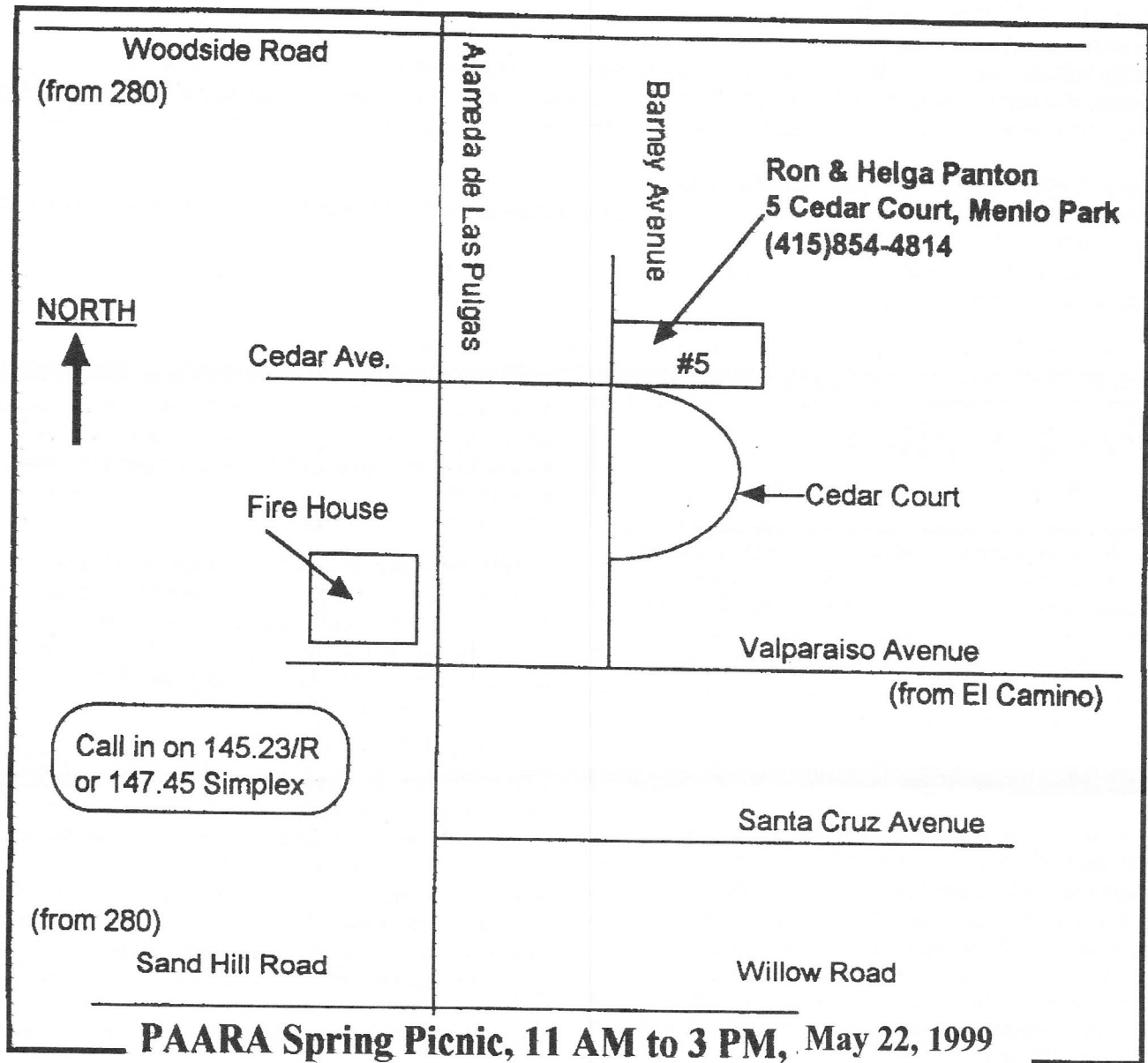
Livermore Swap Meet - 1st Sunday of each month at Las Positas College in Livermore, 7:00 AM to noon, all year. Talk in 147.045 from the west, 145.35 from the east. Contact **Cliff Kibbe, KF6EII**, (209) 835-6715, e-mail: larkswap@hotmail.com.

Foothill Flea Market - 2nd Saturday of each month from March to October at Foothill College, Los Altos Hills, CA.

Valley of the Moon ARC hamfest, April 24, Sonoma Valley Veterans'

Memorial Building, 126 First St. W, Sonoma CA. Starts 8 AM. Talkin - 145.35 minus (PL 88.5 Hz). Contact **Darrell Jones, WD6BOR**, 358 Patten St., Sonoma CA 95476 Phone: (707) 996-4494.

Western States Weak Signal Society (WSWSS) will have their summer meeting on June 5, 10:00AM, at Baker's Square Restaurant, Harbor Blvd. And Hwy. 50.



PAARA Spring Picnic, 11 AM to 3 PM, May 22, 1999



Picnic

The PAARA Annual Spring Picnic will be held, **Saturday May 22** at Ron (W6VG) and Helga Panton's house from 11 AM to 3 PM. The club will supply coffee, beer, cold drinks, charcoal, and a cold cut plate. Bring your own bar-b-que goods and something to share (optional).

Friends and guests are welcome.



Lud Indihar
Store Manager
Excess Solutions
430 E. Brokaw Rd
San Jose, CA 95112
408 / 573-7045
408 / 573-7046 Fax

We Buy & Sell EXCESS Inventory
New Location!

THIS SPACE FOR RENT

Support PAARA with an Ad in PAARAgaphs
(see PAARAgaphs Ad Rates)

Contact Bob Korte, RGK4U@aol.com
605 SPAR DRIVE, REDWOOD CITY, CA 94065
(415) 593-2652, HmOffice/Fax
(408) 534-4285, V.M./Pager

LYNN JOHNSON ELECTRONICS

I want to buy Excess Electronics
Test Equipment, Vacuum Tubes, Ham
Gear
Legacy Electronic Equipment.

966 Parker Court
Santa Clara Ca 95050

408-274-3559 VOC-FAX
408-982-9311 warehouse
Email, lynn@lyntec.com



MICHAEL J. ALLISON
Principal Software Engineer

AHHA! Solutions
4429 Guilford Place
Livermore, CA 94550
510 447-5414
kn6zt@amsat.org

HALTEK

ELECTRONICS

Chris Chalfant
Manager

1062 Linda Vista Avenue • Mountain View, CA 94043
Telephone (415) 969-0510 • (408) 744-1333 • FAX (415) 964-6973

PAARAgaphs Ad Rates

PAARAgaphs accepts paid advertisements from non-members.
(short personal ads remain free for members in good standing)

All ad rates listed are per issue only.

1. Not for profit ads by association members for ham-related items and wants. No cost for business card size ads (additional space at \$2.50 per business card size).
2. For Profit organizations and/or individuals: \$5-business card size, \$25-half page, \$50 full page or back cover.

These fees may be reduced or waived in exchange for a valuable consideration that is given to the Association or its general membership. Such consideration must be in addition to any existing arrangements with the association.

The PAARAgaphs editors reserve the right to reject any ad deemed to be not in the best interest of the Association. All fees payable in advance by the year with "scanner-ready" copy or text-only ads. Give payment and copy to Bob Korte

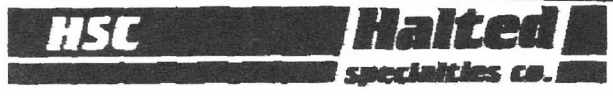
ELECTRONIC COMPONENT SUPPLY
SURPLUS INVENTORIES WANTED



ALLTRONICS

WØQK
HTTP://WWW.ALLTRONICS.COM

2300-D ZANKER ROAD
SAN JOSE, CA 95131
(408) 943-9773
FAX (408) 943-9776



Electronics • Prototyping Supplies • Computers • Lasers

Debra Blanke
Sales
KG6UI

3500 RYDER STREET
SANTA CLARA, CA 95051
www.halted.com

PHONES: (408) 732-1573
(650) 969-1448
FAX: (408) 732-6428

PAARA ☐ Palo Alto Amateur Radio Association ☐ P.O. Box 911, Menlo Park, California 94026-0911

- 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 PAARAgaphs, \$6 for additional family members (no newsletter).
Make payment to the Palo Alto Amateur Radio Association.
Permission is granted to reprint from this publication with appropriate source credit.

May 1999

Palo Alto Amateur Radio Association, Inc.
PAARAgaphs Newsletter
 P.O. Box 911
 Menlo Park, California 94026



INSIDE:

Calendar & Program	K2KW	41
Presidents Thoughts	N6NU	41
Miscellaneous Dates		42
Contests	AB6SO	42
Wanderings	AB6SO & KH7M	43
New Members	AB6SO	44
Ponderings	AB6SO	44
VE	W6VG	44
Honorary Member		44
Maidenhead Grid Squares	AB6SO	46
ARRL		47
Picnic	W6VG	48

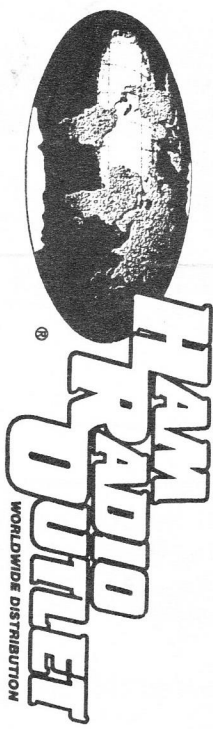
FIRST CLASS MAIL

Korsak, Andy VE3FZK
 504 Lakemead Way
 Redwood City, CA 94062-3919

PAARA
 Celebrating **62** years as an
active ham radio club
 Since 1937

ATLANTA, GA 30310 6071 Buford Highway 770-283-0790 (800) 444-9476	MINNETONKA, MN 55351 13300 Dundas Ave 612-742-3515 (800) 444-9476	NEW CASTLE, DE 19720 10000 N. Hwy 302-322-7092 (800) 644-4476	PORTLAND, OR 97223 51705 SW Pacific Hwy 503-273-5700 (800) 854-6046	SAN DIEGO, CA 92123 1880 Alvarado Ave 619-566-4800 (800) 854-6046	SUNNYVALE, CA 94086 510 Lawrence Expwy #102 Menlo Park 415-961-1000 (800) 854-6046	WASHINGTON, DC 20008 14803 Blvd America Dr 703-541-1089 (800) 444-9476	WINDSOR, VA 22197 Washington D.C. area 703-541-1089 (800) 444-9476	YAKIMA, WA 98901 224 N Broadway 509-425-1000 (800) 444-9476	YAKIMA, WA 98901 224 N Broadway 509-425-1000 (800) 444-9476
--	--	--	--	--	--	---	---	--	--

12 Store Buying Power!



KENWOOD

TS-50S/TS-60S HF Transceiver
 • TS-50S - World's smallest HF Transceiver
 • SSB, CW, AM, FM, TS-60S (SSB only)
 • 12V Gen. Cov. Bx. & 4 lbs. 7.16 x 2.4 x 9.32"
 • 100db dynamic range, 100 Watts
 • Out put ant. Terminals available (TS-50S only)
Call Now For Our Low Pricing!

ALINCO

DL-65T 2M/44
 • 20W Mtr. QRP/DR
 • Built in CTCSS
 • Auto. Q-Clk mem. mod.
 • Chirp Scaler
 • 1.5W w/optional battery
CALL NOW FOR LOW INTRO PRICE!

ICOM

IC-706 HF/VHF Transceiver
 • 100W HF
 • 10W VHF
 • 10W 2 Meters
Call For Introductory Pricing!

IC-775/DSP HF Transceiver
 • 200W HF Transceiver
 • DSP built-in
 • Digital auto. notch
 • Digital LTP and HPF
 • GSK - Digital CW filter - Built-in AC supply
 • Twin P9J - Dual watch
Call Now For The Ultimate Radio!

YAESU

FT-51R
 • 20W HF
 • Alpha Numeric Display
 • 120 Memories
 • Spectroscop
 • 1000000 Hz in
 • 1000000 Hz in
Special Low Pricing!

FT-50R
 • 20W HF
 • Alpha numeric display
 • 112 Memories
 • Hi-Speed scanning
Call For Introductory Pricing!

FT-1000MP HF Transceiver
 • 100W 160-10 MHz + 10W GM
 • 100W 100MHz + 10W GM
 • 100W 12.5MHz - 30.250
Call Now For Low Intro. Pricing!

TH-79A(D) 2M/44MHz
 • 2.7W 2M 2W 4W
 • SW Digital
 • DTS Built in
 • 82 Memories
 • 82 Memory Channels
 • Built-in CTCSS
 • User-Friendly Menu Sys
CALL NOW FOR INTRO SPECIAL!

TH-22AT
 • 2W HF SW out
 • 2W HF SW out
 • 2W HF SW out
CALL NOW!

COAST TO COAST
 FREE SHIPPING
 UPS - Most Items Over \$100
 Rapid Deliveries From
 The Store Nearest To You!