



PAARAGraphs

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



CALENDAR

- August 6, PAARA Meeting, 7:30,
Menlo Park Recreation Center
700 Alma Street, Menlo Park
- August 11, PAARA Board Meeting, 7:30
Red Cross Bld., 400 Mitchell Ln., Palo Alto
- Sept 10, PAARA Meeting, 7:30
Sept 15, PAARA Board Meeting, 7:30
- Oct 1, PAARA Meeting, 7:30
Oct 6, PAARA Board Meeting, 7:30

2 m CODE PRACTICE, 2000 to 2030 PST, Tues W6APZ 145.23 repeater



PROGRAM

August 6, 1999
7:30 P.M.

Speaker:

(Speaker and subject not known 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

Being a Member of the Club

(This appeared in the May 1999 issue of "Waves": the newsletter of the Chattanooga ARC, Charles Curle-AD4F Editor. By Rick McCusker-K06DJ, Editor "WorldRadio Magazine" & January 1999 "The Atlanta Ham", John Talilsky-KI4Y Editor. -From ARNS Bulletin)

When someone becomes a member of a club, there are several reasons for joining. Usually, the new member has an interest in what the club is doing and wants to be a part of the "action." Some become members of a club because they want to associate with others with a like interest, be it hobby or employment related.

When someone joins a club, he or she should also realize the responsibilities they have assumed when they join. Each member is expected to contribute to the club in a positive fashion. A member can contribute by volunteering for an office, the Board of Directors, or as the leader of a special project the club has in mind. One can also contribute by assisting any of the elected officers or by serving on a committee.

One of the most valuable contributions a member can make is to provide information for the club newsletter. Newsletters are an excellent way to get information and interesting subjects to the members. Your contribution can be about what interests you in Amateur Radio. Have you ever had an interesting experience in Amateur Radio? Why not write about it for the newsletter? Others may be interested in hearing about it. Has anything ever happened to you that was down right embarrassing at the time, but is hilarious now? Others would like to read about it. Do you have a passion for a certain area of the Amateur radio hobby? Others may share that passion, and you don't even know it!

(Continued on page 70 Club Member)

Note

PAARA September meeting will be
September 10th
due to Labor Day weekend

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, 440.80 MHz, www.speccsnet.org
 contact Tom Cascone, KF6LWZ, 650-688-0441 speccs@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+ Ncts: 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 Sticler 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

July Contest Calendar, 1999 Vic Black, AB6SO

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

August, 1999
 1 YO DX HF Contest 0000Z-2000Z, Aug 1
 7.8 WAE DX Contest, CW 0000Z, Aug 7-2400Z, Aug 8
 7,8 10-10 Int. Summer Contest, SSB 0001Z, Aug 7-2400Z, Aug 8
 7 European HF Championship 1000Z-2200Z, Aug 7
 7,8 ARRL UHF Contest 1800Z, Aug 7-1800Z, Aug 8
 7,8 North American QSO Party, CW 1800Z, Aug 7-0600Z, Aug 8
 21,22 SARTG WW RTTY Contest 0000Z-0800Z, Aug 21 and 1600Z-
 2400Z, Aug 21 and 0800Z-1600Z, 21,22 Aug
 21,22 SEANET WW DX Contest, SSB 0001Z, Aug 21-2359Z, Aug 22
 21,22 ARRL 10 GHz Cum. Contest 0800 local-2000 local, Aug 21 and
 0800 local-2000 local, Aug 22
 21,22 North American QSO Party, SSB 1800Z, Aug 21-0600Z, Aug 22
 28,29 TOEC WW Grid Contest, CW 1200Z, Aug 28-1200Z, Aug 29
 28,29 SCC RTTY Championship 1200Z, Aug 28-1200Z, Aug 29

Palo Alto Amateur Radio Association, Inc.

PO Box 911

Menlo Park, CA 94026

President	Andreas Junge N6NU.....(650) 233 0843 andreas@atltech.com
Vice President	Jon Zweig, AD6FX ..(650) 324 8751 jzweig@sirius.com
Secretary	Dave Rice, W6NUC ..(650) 593 7840 w6nuc@arrl.net
Treasurer	Doug Schliebus, K1DIT ..(650) 851 0727 schliebus@aol.com
Membership*	Vic Black, AB6SO ..(650) 366 0636 vic.black@adept.com , ab6so@smm.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@atltech.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 ..(925) 944 5388 '99 n6ry@qsl.net
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)

PAARAGraphs Staff

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

PAARAGraphs e-mail address: wmporter@aol.com

Submit material for PAARAGraphs by the 15th

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

(Continued from page 69, Club Member)

One thing that stops members from contributing a story or article for a newsletter is, "I can't write!" Oh ye of little faith! That's why Editors were created! Sure, some of us can sit down and whip out a 1500 word story in nothing flat, while the majority sit and stare at the screen for hours on end. You don't have to be a Hemingway or Clancy to contribute. Editors love to turn over papers and shake out the commas! We can fix anything!

So, what are you waiting for? Write that story! Your club members want to hear it. ☺☺☺

(email to wmporter@aol.com)

Join us for pre-meeting eyeball

QSO August 6th

gab & gobble

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



WEB WANDERINGS

de Vic Black, AB6SO



Last month's column featured some really nice miniature keys and iambic paddles.

If you enjoyed looking them over, you'll want to check out a couple more this month. Try the home page

for the Paddlette Company at <http://www.home.att.net/~goodroe/paddlette>.

They make two models of iambic paddles, the Paddlette and the Paddlette BP, or back packer, model. Both models are made of machined PVC, brass and stainless steel. They're light weight (less than 1.5 ounces for the heaviest model) and very small (1 inch by 1.75 inch for the large model and .75 by 1 inch for the Back Packer model). I've tried the large model and thought the simple design was elegant. Use their magnetic hold downs, or try their leg strap accessory.

Another small iambic key is the BullDog, available for less than \$20. I haven't actually seen one, but I've talked to people who use them and like them. Check it out at <http://www.qth.com/k9lu>. It comes with a wood base and suction cups to hold it to a smooth surface. For less than \$10 you can get the action only and make your own base. Yep, they sure look familiar. Hey, wait a minute! That action looks like it's made of metal buttons, office supplies and heavy duty, spring steel binder-type paper clips. Apparently, they work quite well and are highly regarded by users.

Last month I told you about the shuttle launched satellite Starshine, a one meter diameter "disco ball" covered with 900 mirrors. Pat Kilroy WD8LAQ of AMSAT reported that the satellite was sighted visually shortly after launch from the shuttle Discovery. The mirror-covered satellite catches the sun's light and reflects it to Earth. The first sighting, equivalent to Acquisition Of Signal with a radio equipped satellite, was described as "a bright flash from out of nowhere" as it appeared from behind the Earth's shadow and "about as bright as Venus just after sunset." That's pretty bright when you consider that Venus can cast shadows on the ground on moonless nights. Starshine is unique in that it has no electronics on board and is totally passive. Its only function is to reflect light as a teaching aid for children to learn about satellites.

K3WWP John Shannon of Kittanning, PA hasn't missed a day without at least one QRP CW QSO in nearly 3000 consecutive days operating. During that time he made more than 20,000 CW QSOs. John offers a valuable service on his web site. Go to http://www.alltel.net/~joh_nshan/qslroute.html. Under the Main Menu, select QSLing, then Find a QSL Route. You'll find a listing of more than 20 callsign servers. Next to each one is a block to fill in with the callsign you're looking for along with "S" for Search and "C" for Clear. If you don't find an address under one server, go to the next most likely one. Some, such as QRZ!, will give an address and some, such as Daily DX or 425DX, will have listings of QSL managers. On these, use your web browser Find function to locate the

desired callsign and then look up the QSL manager in QRZ! or Buckmaster.

Bonnie Crystal KQ6XA plans an exploring and mapping expedition to Bolivian caves in the Andes Mountains from July 20th to August 20th. While there she will be on the air on 10 through 160 meters using CW and SSB. Check out her home page at <http://www.qsl.net/kq6xa> for more information about this trip.

The objective of the July IOTA contest is to work as many as possible of the world's nearly 1300 recognized ocean islands. You may want to check the web site of the newly created Island Radio Expedition Foundation, Inc., an organization created to provide financial support to expeditions to rare and new IOTA islands and island groups. The web page for IREF is at <http://www.sat.net/~iref>. Find out how you can become a part of this endeavor.

Paul O'Kane EI5DI has released a new version of his freeware SDIOTA which uses a "Country" file to analyze callsigns by prefix then, in a separate window, displays corresponding IOTA references worked and needed on the current band and mode. For example, type K1 and the display reads USA - Area 1: NA031, NA046, NA055, NA136, NA137, NA148 to indicate the IOTA island reference numbers in that area. Callsigns and islands are analyzed by call area for Australia, Brazil, Canada, Chile, Japan, Indonesia, Italy, Mexico, Panama, Philippines, South Africa, Sweden, USA and Venezuela. Islands needed as multipliers are highlighted by the software. SDIOTA (V9.38) is available from <http://www.ei5di.com>. Paul's Super Duper contest logging software includes several versions such as SD (many HF contests), SDX (same as SD but 11,000 QSO capacity), SDC (RSGB Commonwealth Contest), SDI (RSGB IOTA Contest), SDIOTA (same as SDI but 6,000 QSO capacity), SDU (UBA and REF contests), SDL (many HF contests for SWLs) and SDV (many VHF contests).

Ed Hare W1RFI from the ARRL Lab wrote, "...for an explanation of the various terms used in conjunction with propagation reports, try: http://www.sec.noaa.gov/in_fo/glossary.html and <http://www.ips.gov.au/rwc/current/gloss.html>. Also, an article appeared in a QST Lab Notes column, Oct 1996 QST, p74, 'Lab Notes: Here Comes the Sun!' Unfortunately, we don't (yet) have it available electronically on the www.arrl.org web page, but I expect to see a propagation primer on there within a month or so. 73, Ed."

John McDonough WB8RCR sent a message about a commercial radio Special Event operation instigated by amateurs and concerning the local Globe Wireless ship-to-shore station KFS (transmitter in Palo Alto with receiving station in Half Moon Bay) and sister station WNU located in Louisiana. "I just listened to the last ship to shore CW stations go off the air. Such a shame. Both of the stations I could hear switched from their automated code to manual, apparently straight key, to close. I did manage to get .wav files of them, but pretty rough copy. Sad to see the end of an era. For those interested, the files are posted on NW7US's site <http://hfradio.org> along with his recordings from the other side of the continent." The op-

(Continued on page 73) Wanderings



PAARA PONDERINGS

de VIC BLACK, AB6SO

In May, 1998 I reported that PAARA Daly City member **George Londoro KE6FFU** upgraded to General Class. George got busy on HF and upgraded again in May to Advanced Class callsign **KR6BB**. Good going, George! Welcome new PAARA member, Boy Scout **Leeron Morad**. Leeron was licensed as **KF6VSD** on April 13 then applied for a unique and creative vanity callsign to express his love for dogs. Since May 25 **Leeron is WK9DOG**. This may be a rare callsign prefix and should be popular in the WPX (Worked All Prefixes) contests when **Leeron** gets on HF.

Also be on the lookout for some other new PAARA callsigns compliments of the vanity callsign program. **John Bruckner**, who upgraded to Tech Plus on March 20, changed from **KE4FNB** to **K6JJB** on May 26. **Loren Archer** dropped **KF6UNG** in favor of **K7LRN** on July 9.

Attention prefix (WPX) collectors: From October, 1999 through March 2000 listen for New Zealand operators using special prefix ZM to celebrate the millennium.

You may have worked some unusual Canadian callsigns during July. Canadian amateurs were authorized to replace their usual prefixes to commemorate the 75th anniversary of the Royal Canadian Air Force. VE became CF, VA became VX, VO became VC, and VY was replaced by CG. All Nova Scotia amateurs are permitted to use the exotic sounding prefix XJ1 in place of VE1 through 27 November, 1999 to commemorate the 150th Anniversary of the Pony Express between Victoria Beach and Halifax, NS.

These special Canadian prefixes will help you qualify for the Maple Leaf Award. A Class IV award requires confirmed contact with a minimum of 10 Canadian prefixes. Fifteen prefixes will earn you a Class III award, 25 are good for a Class II award and for 30 prefixes, you can apply for a Class I award. For information about this and other Canadian awards, see <http://www.rac.ca/awards2.htm#birth>.

Is there life after DXCC? Some hams become bored after making DXCC (i.e. working 100 DX countries). If that's happened to you, take a look at what **Jim Hale KJ5TF** from Kingston, AR has set as a goal. "I was able to operate Field Day off and on both days, and just a little Saturday evening. My total QSO's for both days was 58. On 20M my half square antenna at 20' does all the work. Contests like this are prime for milliwatt action, and I gave it a good try. In my milliwatt Worked All States effort I picked up 4 new states: I got IL with 17mW, IN with 33mW, SC with 28mW and RI took 100mW. The 4 new states 'cost' me a total of 178mW. I tried and tried getting RI with less power but had to turn up the power to 100mW in the end. I now stand at 41 states with a total power expenditure of 1.179 Watts. Using 100mW for one state is a bit 'piggy' but I was able to reduce power on some other states. For example my previous power 'spent' for VA was 70mW, but I was able to pick up a VA Field Day station with 17mW.

Also trimmed were MI from 70 to 33mW, MA from 50 to 25mW, CT from 45 to 28mW, TN from 40 to 28mW, WI from 40 to 33mW, MN from 40 to 28mW, and NJ from 32 to 25mW. My equipment was the Index Labs QRP+ & Oak Hills QRP wattmeter. The QTH is in the Ozark mountains in a place with no electric service, but I was able to bring in a phone so I have Internet. All power is produced by solar and wind systems. I feel sure that by the end of 1999 I can get all 50 states with less than 1 Watt total power expenditure."

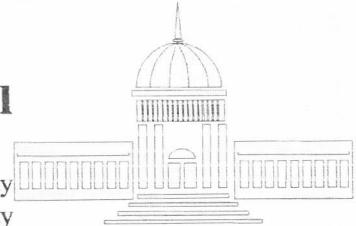
(Look for an article by Jim to be published in August, 1999 QST, pages 53 and 54.)

If QRPP (<1 Watt) sounds tough, then try this one running high power. The Radio Amateurs of Italy (ARI) sponsor a series of awards for DXers. See <http://www.425dxn.org/awards/toplist.html> for the rules for the Topbands, Topmode and Tolist Awards. Topbands is awarded for confirmed contacts with total band countries on 160 through 10 meters (i.e. 331 countries on each band times 9 bands = 2,979 "band countries"). Topmode is awarded for confirmed contacts using SSB, CW and RTTY times 331 countries on each mode = 993 "mode countries". Tolist goes for a total of "band countries" plus "mode countries" or a total of 3,972. The high scorer so far? Austin Regal N4WW from Apopka, FL with a grand total of 3,766 Tolist countries worked.

Summer always sees a lot of activity from island stations with DXpeditions and contests for IOTA (Islands On The Air), US Islands, Canadian Islands and others. AC6V recommends looking for the following rare ones this summer:

Theater Isle, Total Cay (must give Cereal Number), Mary Cay and Charcoal Reef (In the Barbecues Group). To which I'll add the Isles of Langerhans. ☺☺

News from the Nation's Capital



I participated in Field Day with the Charles County (Maryland) Amateur Radio Club, whose club call is **K3SMD** (2A MDC). As soon as I arrived, they put me to work operating 40-meter CW. I listened for **W6OTX**, but I did not hear you guys during my shift. The site was just south of the Charles County Fairgrounds off US Route 301. For more information, see <http://www.qsl.net/k3smd>.

I was in Toronto over Memorial Day weekend and visited **Phil, VE3FZL**, who attended our February, 1995 meeting. He is doing well, and he says hello to everybody.

The weather here has been miserably hot and muggy over the last few days. Let's face it – I was spoiled by the California weather.

73, Dave Bailey (WS6W)

Dave WS6W, is a member and former officer of PAARA, now living in Washington DC area. Ed.

(Continued from page 71)Wanderings

erators on the west coast used call letters KPH/KFS and in Louisiana they used call letters WCC/WNU to also honor the RCA stations that shut down years ago. The last Morse operations occurred on Monday, 12 July, 1999.

The stations, which were the last coast stations in North America to use Morse code, didn't actually go off the air. They switched from CW to satellite or HF Internet-like digital communications such as SITOR. PAARA member **Dennis Freeman K6YLN** points us to <http://www.netschoice.com/newspapers/alameda/smct/default.asp> for an article about this historic event as described in the San Mateo County Times for July 13. Next to the newspaper masthead, type KFS in the box marked "Search Our Archives". A synopsis will come on screen. Click on "Full" for the entire article. The final message, addressed to President Clinton, was sent from the World War II liberty ship SS Jeremiah O'Brien docked at Fort Mason in San Francisco. The message text said, "History is made on this day as we embark on a new era of maritime communication. The occasion marks the closure of the ship-to-shore radiotelegraph operations from the last four commercial coastal stations in North America still using this time-honored medium on July 13. Please accept this final radiotelegraph message from the liberty ship SS Jeremiah O'Brien in San Francisco as a token of this historic event. Best regards." For more about the involvement of the Jeremiah O'Brien, go to the web page <http://www.crl.com/~werfald/news.html>.

SILENT KEY

Jerry Zobel W6ARA

Dr. Jerome F. Zobel, 93, a 40 year resident of Palo Alto, died Jan. 25. He was a professor emeritus in surgery and clinical practice with Stanford University Hospital and several other Bay Area hospitals. A graduate of UC Berkeley and McGill University Medical School, he lived through two major events in his life. The first was the 1906 San Francisco earthquake, which occurred when he was just an infant. The second, the bombing of Pearl Harbor on Dec. 7, 1941, coincided with his service aboard the battleship Nevada, where he served as a medical officer. In Palo Alto, he practiced medicine at his offices at the Palo Alto Medical Plaza and on Hospital Drive in Mountain View. He also enjoyed operating a ham radio from his home on Northampton Drive and belonged to the Amateur Radio Association. He is survived by his wife of 55 years, Louise Purwin Zobel of Cupertino; three daughters, Lenore Harris of Ventura, Jan Zobel of Oakland and Audrey Dollinger of Salem, Ore.; a son, Robert Zobel of Boca Raton, Fla.; and eight grandchildren. Services have been held. Contributions may be made to a charity of the donor's choice.

(Palo Alto Weekly 2/24/99, thanks for copy from Steve Stuntz, K6SF. Jerry was an active PAARA member for many years. -Ed.)



I SLIPPED A TRICK EXPLDING RUBBER DUCK ON THAT DEMO---I WONDER WHO'S GOING TO GET IT?

Honorary Member 1999

Barry Bettman N6ST

421 Casa Del Mar DR
 Half Moon Bay, CA 94019

barryb@ix.netcom.com

NEW PAARA MEMBERS

David Ronsse N6VSN
 1787 Eberhard St
 Santa Clara, CA 95050

ronssito@aol.com

Charles Hartley W6OOC
 P.O. Box 614
 San Carlos, CA 94070

w6ooc@earthlink.net

Leeron Morad WK9DOG (was KF6VSD)
 4157 Solana Drive
 Palo Alto, CA 94306-3169

—Thanks to Vic, AB6SO

APPARENT S-METER ANOMALIES

de Rich, W6APZ

The 145.230 repeater S-Meter has generated a lot of interest and controversy. I recently heard some interesting S-meter reports. One person who was testing first got an S5 reading then on the next test he got S9. This is an apparent 4 S unit change. As each S unit is 6 dB, that would seem to be a 24 dB increase in power entering the repeater receiver. If one were using a 2.5 watt HT, 24 dB up would mean the person was running an amplifier with 628 watts out. While this IS possible, it is not likely.

There are several other possible explanations. Remember that while the repeater's S-meter is calibrated to respond to an analog input, the controller's output is digital. One can envision this as a set of stairs going up, each step of which is 6 dB (one S unit). Superimposed on this stairway is a smooth curve of the analog signal. Ideally, the analog signal will touch the stairs at the corner of each step. If the initial S5 reading were near the top of one step, say only $\frac{1}{2}$ dB below, and the S9 were just above (say $\frac{1}{2}$ dB above) the S9 stair step, then instead of a 24 dB increase, there would really be only a 13 dB (two steps at 6 dB each plus two $\frac{1}{2}$ dB steps) change. 13 dB above 2.5 watts is $\sim = 49.9$ watts. 50 Watt amplifiers are a lot more common on two-meters than 628 Watt amplifiers.

One other logical explanation assumes that the S5 was obtained with an HT putting out only 200 milliWatts. Some of the new shirt-pocket HTs have the capability to select a very low power output. One 523 repeater user puts out only 50 mW into a good antenna which results in an almost complete quieting of the repeater receiver. Assuming a true 24 dB change, 24 dB above 200 mW is $\sim = 50$ Watts which is well within the normal range of many amplifiers.

Heard on the repeater recently, a mobile station at rest was testing using the S-meter. This station said that they varied the power setting on his radio from 5 Watts to 50 Watts and the S-meter gave the identical reading at both extremes and at several levels in between. His conclusion: "I guess the S-meter isn't working". What might have been happening there? OK, one could say that the S-meter was not working, but that response was thrown out by other stations testing and obtaining reasonable reports. There are several other possibilities, however. Just because one switches a radio from low to medium to high power does not mean that the radio is in fact changing power levels. I remember checking one HT which had multiple power settings with a through-line wattmeter connected to a good dummy load. Changing the power level switch had NO effect on power output. Conclusion: the Power Level switch on the HT was not working.

In a mobile installation there are other possibilities. With the engine off, a weak car battery will experience voltage drop as more current is taken from the battery. In this scenario, with

the radio in the low power position, the battery voltage may be 12 volts, but at the 50 Watt position, the 10 Amps or so drawn by the radio to put out that amount of power could cause a weak battery to output only 10.5 to 11 volts. Thus the radio is not really putting out 50 Watts even when the switch is in the 50 Watt position.

A similar situation would exist if the car motor were running and a new car battey were installed, but the connection to the to the battery were though the cigarette lighter and/or there were even a small resistance contact somewhere between the battery and the DC going into the radio. At a current of 10 Amps, it would take only 0.1 Ohm resistance to drop one volt between the battery and the rig. Yet this could significantly affect the rig's power output.

Keeping in mind the stair-step analogy above, switching from 5 Watts to 50 Watts should yield a 10 dB gain in signal strength, or one and two-thirds S units. But the controller does not report in thirds of an S unit. The signal has to at least be at or over the next step to read the next S unit. So, if everything were working properly, a change from 5 to 50 Watts output should cause a 1 S unit change in reading. How far would power have to drop not to hear any change? If we assume that at 5 Watts output, the signal at the repeater was just barely above the S5 level, the signal could rise 5.5 dB and still not read an S6. 5.5 dB above 5 watts is: $17.74 / 5 = 3.548$ and $10 \times \log 3.548 = 5.5$ dB)

There are other possible causes of apparent S-meter anomalies.

Some examples: if one were using an HT to drive an amplifier and both were being powered from the cigarette lighter outlet, if the current taken by the amplifier were causing the voltage to the amplifier to be low, the voltage to the HT would also be low. Even if the HT is operating on internal batteries, how well is the internal battery holding up (over the duration of the test) at 5 Watts out of the HT? If one is using an HT to drive a Class C amplifier, but the HT is on low power, there may not be sufficient drive to the amplifier to have it produce full output.

So what is the answer? For starters, IF the S-meter is not responding the way you expect, monitor the voltage actually going into the back of your rig, whether at home or in the car. (Beware of possible RF effects on any voltmeter using semiconductors. One may have to use an analog meter in series with an appropriate resistor to obtain an accurate reading in the presence of RF.) As we have seen above, even a small resistance somewhere between the power source and your radio could be the problem. Second, attach a power meter at the output of your rig and measure actual change in power output as the power level switch is changed for one level to the next. Chances are that if the S-meter is not changing S unit levels, that the rig is not putting out enough power to cause it to change. ☺☺☺



COOLEY LANDING FIELD DAY SITE



RAVENSWOOD RANCHO, residence of L. P. Cooley in Menlo Park, has been called the town that didn't happen. It was considered in the 1860s for the terminus of the Central Pacific Railroad and for a lumber shipping port, but neither expectation was fulfilled. The wharf is still called Cooley's Landing and the area is now zoned for industry.

Cooley Landing Site (PAARA Field Day site for many years)

End of Bay Road, East Palo Alto

In 1848, Adams and Company of San Francisco, a banking and express company, acquired 3,670 acres of this land near San Francisco Bay. One of the firm's partners, Isiah C. Woods, learned of the Pacific and Atlantic Railroad's plan to construct a bridge across San Francisco Bay adjacent to the property, and persuaded his partners to make a considerable investment in their property. In 1849, an elaborate wharf was constructed, the first town to be platted (Ravenswood) in San Mateo County was laid out and hotels, saloons, and shacks were constructed along the main street. When the railroad decided not to build a bridge, the company lost its entire investment and was forced to close.

In 1868, the property was purchased by Lester P. Cooley and it became known as Cooley Landing. Cooley planned to make this the principal shipping point for lumber in transit from the Woodside area to San Francisco, however, the wharf proved to be less accessible than that on Redwood Creek and fell into disuse.

SOURCE: San Mateo County Historical Resources Advisory Board. San Mateo County...Its History and Heritage. [San Mateo, Calif.]: San Mateo County Historic Resources Advisory Board, 1983. P. 54

This material was researched and submitted by Dean Babcock, W6OEB. PAARAGraphs welcomes material from members who know or search history related to PAARA.

FIELD DAY '99

1. Field Day call used K6YT
2. Club or group name Palo Alto Amateur Radio Assn.
3. Field Day location End of Bay Rd., East Palo Alto
4. Began set-up prior to 1800 UTC Saturday
5. Number of people participating in this operation 30
6. Number of transmitters in simultaneous operation 2
7. ARRL/Canadian section Calif Santa Clara Valley SCV

8. Entry class (check only one)

- A. Club or non-club group portable
 B. Non-club portable 1 op 2 op
 List operators _____

- C. Mobile
 D. Home station (commercial power)
 E. Home station (emergency power)

9. Power Source

- Generator
 Commercial mains
 Battery
 Other

10. Call sign of Novice/Technician station
 (Class 2A and above) KD6KYT

12. Total CW QSOs 462 × 2 = 924
 Total Digital QSOs 803 × 2 = 1606
 Total phone QSOs 803 × 1 = 803
 Total QSO points 1727

13. Total QSO points 1727 × Power Multiplier (5 W or less, × 5; 150 W or less, × 2; over 150 W, × 1) 7
 equals Claimed Score (less bonus points) 3454

14. Bonus Points

Attach proof required for all bonus points claimed. All bonus points will be added at ARRL HQ.

- 100% Emergency power
 Media publicity
 Location in public place
 Information booth

- Message origination to SM
 W1AW Field Day message
 Messages relayed (no.) _____

- Satellite
 Natural power
 Other _____

15. I have observed all competition rules as well as all regulations for Amateur Radio in my country. My report is correct and true to the best of my knowledge. I agree to be bound by the decisions of the ARRL Awards Committee.

Date 17 July 99 Signature G H Tucker (signature/call or club president) Call WA6LNV FD chairman

16. Full mailing address (please print)

Name G H Tucker Call WA6LNV
 Address 1112 Ramona St
Palo Alto CA 94301

E-mail address _____

Please enclose log, photos, comments, ideas, etc. with your entry and mail promptly to:
 ARRL Contests, 225 Main Street, Newington, CT 06111.
 Anonymous FTP: ftp.arrl.org
 Internet: fieldday@arrl.org
 WWW: www.arrl.org



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 PAARAGraphs
(see PAARAGraphs 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 408-274-3559 VOC-FAX
Santa Clara Ca 95050 408-982-9311 warehouse
Email, lynn@lyntec.com

HALTEK

ELECTRONICS

Chris Chalfant
Manager

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

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

PAARAGraphs Ad Rates

PAARAGraphs 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 PAARAGraphs 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

HSC

Halted
specialties co. inc.

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 PAARAGraphs, \$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.

