

PAARAgraphs



The Official Newsletter of the
Palo Alto Amateur Radio Association, Inc.

The Friendliest Club Around

Celebrating 86 years as an *active* amateur radio club—*Since 1937*

<http://www.paara.org/>



Direction Finding with the Kraken SDR

Bryan St Clair, K6CBR

Bryan has been a ham for about 10 years.

Release the Kraken!



No!

This one



He has a background in IT security and infrastructure for the last 23 years. He is currently the VP and Chief Controller of the WIN System Amateur Radio Network.

**This meeting will be a
Hybrid Meeting
Zoom and In Person**

Time: October 6, 2023 07:00 PM Pacific Time

Please check <https://www.paara.org/> for
Zoom Details

Upcoming Events

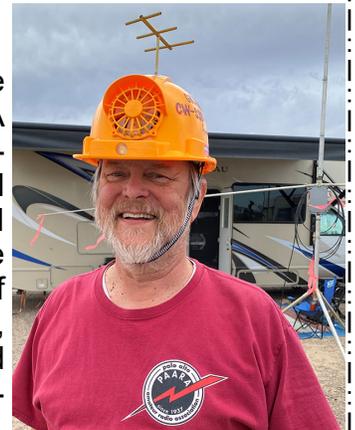
Oct 6*** Nov 3 Dec 1	PAARA General Meeting, 7:00 PM *** Zoom and In Person Meeting
Oct 18 Nov 15 Dec 20	Board Meeting, 7:00 PM. Everyone welcome! Zoom Meeting, eMail President for details!



President's Corner

October 2023

Our last event of the year is another PAARA in the Park on September 30th at Memorial Park in Cupertino. I hope to see everyone for another great day of socializing, BBQ food, getting on the air, and learning about ham radio. Darryl, KI6LDM,



has put together a Fox hunt with a 2M Yagi tape measure antenna build project for hunting the fox. The antenna build will start at 10:30 AM. We'll have an extra HT or 2 there along with an antenna for anyone wishing to participate who doesn't have the equipment to hunt for the fox wherever it is hidden in the park. As in the past, we'll have 2 HF stations and antennas set up for hams or interested parties to use to make contacts. Coaches will be available to assist where needed. Feel free to bring your own radio and use one of the antennas or bring that antenna you've been itching to make a few contacts with. See our website for more infor-

(Pres — Continued on page 2)

(Pres — Continued from page 1)

mation.

September was the start of board elections. Clark, KK6ISP, reported to the board that all members are running again except Joel. Clark is accepting nominations from anyone who wishes to run for a position on the board. Feel free to talk with Clark or anyone on the board if you have any questions about being on the board. Nominations remain open until the end of the November 3rd club meeting. Elections will be held during the December 1st club meeting. You must be a current member of PAARA in order to vote and be present in person at the meeting. No online voting is being provided.

Let us not forget that October 20 ~ 22, a short 2 weeks away, is Pacificon and the PAARA special event station. You can register for the event at <https://www.pacificon.org/>. Mikko, AB6RF, really needs help putting the station together, assisting operators with the operation of the radios, watching the station overnight, and decommissioning the station on Saturday/Sunday. Please reach out to Mikko to lend your hand in setting up or operating the station. Setting up and staffing the station is a very important addition to Pacificon and is greatly appreciated by MDARC, the sponsoring club of Pacificon.

Speaking of Pacificon, MDARC is in a desperate search for volunteers to staff 4 critical chair positions. Pacificon 2024 is in jeopardy of being canceled if these positions aren't filled in September 2023. MDARC has to let the hotel know at the end of September if they need to cancel the 2024 event!

As we stand on the precipice of fall and the holiday season, one might start thinking of what the first activity of 2024 will be. For me, it's Quartzfest from January 21 to the 27th. For those who haven't attended, it's a wonderful time of camping, socializing, meeting new and old friends, and learning, with a bit of HF thrown in for good measure. I hope you'll consider joining those of us who make the trek to the desert about 8 miles south of Quartzsite, AZ. More information can be found here: <https://quartzfest.org/>. As last year, I also plan on attending the King of the Hammers off-road race in Johnson Valley from January 18th to February 3rd.

As you can tell, this month's PAARAgaphs is a bit light in the story department. Please consider submitting something for next month or we'll not have a story at all!

I look forward to seeing a room full of smiling faces at the October 6th meeting. It will be an IRL and Zoom meeting.

73, Jim K6SV

Get on the air to keep the airwaves alive!

Soil Resistance Measurement Exercise

Gary Barnes, KI6HIG

Soil resistance is a measurement of how much the soil conducts electric current. Since soil resistance will affect the antenna/ground performance, it is a good thing to know, so you can plan around it. The soil resistance meter uses four-wires for its resistance measurement, connected to the "pins," actually relatively large chromed steel spikes with TEE handles which are driven into the ground. First a tape measure is placed on the ground in a straight line with a second tape measure in the opposite direction. The junction of the two tape measures is the center reference position. The outer two wires or leads supply the known test current and the inner two wires or leads monitor the potential. The meter will display the resistance value in ohms. This meter uses an AC test current. One test frequency it uses is 95 Hertz. After each measurement, the test leads distance is increased per the test procedure.

On Saturday, 12 August 2023, we started to measure the soil resistance at Doug Teter's place in San Martin. The temperature was to be 75°F, but that was wrong and the temperature got up to 89°F by the end of our work. I arrived before 10 AM and the other's arrived after 10 AM. Doug got the table to place the test equipment on, two chairs and a shade canopy, and we set up to test position by the corner of Doug's house. The helpers were Jeff Reagan, Bob Ridenour, KN6YGN and his son George Ridenour, KN6YGW. I placed a nail at the end of two 200-foot long measuring tapes. One tape measure was toward 53° magnetic and the other tape measure was toward 233° magnetic. After the first two measurements,

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(Measurement — Continued from page 2)

Doug found an error in my test procedure distances, which we worked around.

The maximum distance for the outer pins is limited to the length of the tape measure and the length of the test leads. My tape measure is 200 feet long and my test leads are also 200 feet long. The next limitation is the size of the yard. At Doug's place, the distance from the house to the fence is about 173 feet, which set our distance limits. Lastly, the soil meter has a maximum range of 30,000 ohms.

The pin is inserted into the ground 6-inches. A piece of tape was used to mark the correct depth on the pin. When the first pin was driven into the ground, we found a gopher hole, so we moved a bit to the side where we could get a solid connection for the full length of the pin. Doug's dirt is very hard when dry, so we had to drive the pins into the ground with a hammer. We then measured the soil resistance of 45.1 ohms for a 1-foot distance. The next test point we measured a soil resistance of 115.1 ohms for a 1.5-foot distance. After that measurement, the next was at 2.3-feet and its reading was 9.97-ohms. We stopped making measurement after the next couple distances, because the resistance readings were getting lower. This is not what was expected.

Following the prescribed test procedure, we rotated the tape measurers to about 93° magnetic and 273° magnetic. And to no one's surprise, we found more gopher holes. Our first resistance measurement was 73.7 ohms and our second measurement was 155.3 ohms. The rest of the test points had low resistance values which did not make any sense. It became clear that something was not working as it should, so we packed up and left at about 1:30 PM.

The next day, I checked the operation of my soil resistance meter, and I found it to be in tolerance. At this point, I believe the yellow potential lead is open. I will replace it and we will try again.

September Board Meeting

Present were President Jim Thielemann K6SV, Secretary Ric Hulett N6AJS, Treasurer Margaret Cooper K6WEK, Directors Doug Teter KG6LWE, Darryl Presley KI6LDM, Joel Wilhite KD6W, and Walt Gyger K6WGY. Also present were Clark Martin KK6ISP, and Brian Tanner AG6GX.

A quorum was present. The meeting was called to order at about 7:15 pm.

President's report: In August, President Biden declared September National Preparedness Month. Maybe it's a little late in the month for me to bring this up but it's never too late to make sure you're prepared for whatever emergency may happen in the area you're located. If you travel, make sure you have your bag ready with items that may be relevant to your destination. How many of you have "go bags"? In our case that includes radio equipment as well as personal items. Do you have an emergency plan that all your family knows about? How do you contact each other when separated and an emergency happens? What's your meetup spot? Even if you are fully prepared, you should routinely go through your bag to make sure it's current and replace items with expiration dates.

Vice President was not present, so there is no VP report this month.

Our guest speaker for the October meeting will be Bryan St. Clair, K6CBR. He will speak on "Direction Finding with the Kraken SDR"

Secretary's report: Will update the finances from the PayPal account at the end of September.

Members: We are approaching the end of the year – PAARA memberships run from January 1 to December 31 of each year. This is a great time to renew your club membership: Send a check to PO Box 911, Menlo Park, CA 94026, or use the PayPal link under the "Membership" tab on the PAARA website.

Membership is still only \$25.00 per year.

Treasurer's report: Received checks (ads, dues) deposited; printing costs, field day and postage reimbursements up to date; cash received at latest meeting being held as petty

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(Minutes — Continued from page 3)

cash for change in case we sell antenna kits at PitP.

Will download the bank statements, reconcile, and send a report to our accountant Sheila after the end of the quarter (9/30) for bookkeeping purposes.

Next project: scan paperwork from prior years for electronic storage, and shred originals.

Old Business:

Members! Please contribute your stories to PAARAgaphs! We have no ham stories in the bin, after September: Remember, it is member-written content that keeps our newsletter interesting and unique.

Write your thoughts (even briefly) and send to [Jim Thielemann K6SV@arrl.net](mailto:Jim.Thielemann.K6SV@arrl.net).

PAARA in the Park will be held this September 30, at Cupertino Memorial Park.

We have the park reserved, and will start at 10:00 AM. Our educational activity will be construction of "Tape Measure Yagi" antennas for 2 meters, with a hidden transmitter (Fox) hunt.

We decided to pre-cut elements for safety. More than a dozen antenna kits have been purchased.

See you there!

K6SV is gathering more forms to complete our approval for a raffle.

PAARA loaner radio program: N6AJS will write a blurb describing the program for PAARAgaphs.

Pacificon is in 5 weeks! We need more volunteers for set up, operation, and tear down of the W1AW/6 operation.

Pacificon: MDARC still has some critical volunteer positions to fill for the 2024 meeting. If you are able to support this important meeting, please reach out to Kristen McIntyre K6YX.

Elections:

All current board members except for KD6W have agreed to stand for election to the board for next year. The election slate is set in at the end of the November meeting, and the election is at the December meeting. Members must be

present at the meeting to vote.

New Business:

A club member would like to have a for-sale page on the PAARA website.

We already support member ads in PAARAgaphs, but hosting on the PAARA.org website may be more difficult.

The meeting was adjourned at 9:00 pm

Respectfully submitted,

Ric Hulett N6AJS
 PAARA Secretary

For Sale

Pictures available for all items. For details, contact Rich at: W6APZ@comcast.net

PowerStat — 115 VAC in variable output. Rated at 7.5 Amps. \$25

Knight KG-635 DC Oscilloscope..... \$25

Home-brew phone patch \$5

RF Concepts, RFC 270, 2-Meter/440 amplifier, 5 Watts in yields 30 Watts out on 2, 20 Watts out on 440 MHz. \$30

HP 606B RF Signal Generator, 50 Hz to 65 MHz. \$25

Kantronics, KPC-3 \$25

Heathkit Capacitor Checker \$25

Heathkit Harmonic Distortion Meter..... \$25

FT-911 1.2 GHz HT— Works well on Car Adapter or on Alkaline Batteries.

Highest bid above \$125 takes it

Contact me for more items at bargain prices.

Please note that last month's article:

Identifying and Reducing Background Noise
with KERMIT

was written by: Ben Glick, KN6UBF

Palo Alto Amateur Radio Association, Inc.

PO Box 911 Menlo Park, CA 94026

Officers

President	Jim Thielemann, K6SV	408-839-6815
	thielem@pacbell.net	
Vice President.....	Rob Fenn, KC6TYD	650-888-9060
	kc6tyd@gmail.com	
Secretary.....	Ric Hulett, N6AJS	408-332-4593
	n6ajs@arrl.net	
Treasurer	Margaret Cooper, K6WEK	
	k6wek@arrl.net	

Directors

Director ('23-'24)	Joel Wilhite, KD6W	408-839-5948
	kd6w@arrl.net	
Director ('22-'23)	Walt Gyger, K6WGY	408-921-5901
	walt@tradewindsaviation.com	
Director ('23)	Doug Teter, KG6LWE	650-743-7892
	dteter@wcwi.com	
Director ('23)	Darryl Presley, KI6LDM	650 255-2454
	ki6ldm@arrl.net	

Appointed Positions

Membership	Ric Hulett, N6AJS	408-332-4593
	N6AJS@arrl.net	
Database.....	Ric Hulett, N6AJS	408-332-4593
	N6AJS@arrl.net	
Station Trustee W6OTX, W6ARA.....	Gerry Tucker, N6NV	
Station Trustee K6YQT	Doug Teter, KG6LWE	650-743-7892
Station Trustee K6OTA	Ron Chester, W6AZ	
Property Manager	Doug Teter, KG6LWE	
Badge Coordinator.....	Doug Teter, KG6LWE	650-743-7892
	dteter@wcwi.com	
Historian Position	<i>Position Vacant</i>	
Raffle Coordinators	Rob Fenn, KC6TYD,	rtyd@aol.com
	Shrikumar, KA6Q	
	shri.paara@enablers.org	
Field Day Coordinator.	Doug Teter, KG6LWE	650-743-7892
ASVARO Rep	Clark Martin, KK6ISP	
	kk6isp@sonic.net	
Webmaster.....	Shrikumar, KA6Q	
	webaron@gmail.com	
Technical Coordinator.	Christopher, AI6KG	408-348-0304
	ch@murgatroid.com	
QSL Manager.....	Marty Wayne, W6NEV	408-234-8023
Speaker Coordinator...	Rob Fenn, kc6tyd	650-888-9060

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	walt@tradewindsaviation.com	
Member Profiles	<i>Position Vacant</i>	
Technical Tips.....	Ric Hulett, N6AJS	
Photographer	<i>Position Vacant</i>	

VE Exams

De Anza Park, Sunnyvale, 2nd Saturday 10:30 am each month except November and December. See website for details and exceptions: <http://amateur-radio.org>

Electronics Flea Market (ESM)

Sponsorship: Association of Silicon Valley Amateur Radio Organizations (ASVARO)
 The Electronics Flea Market is seeking a new location. Until that is resolved, the EFM is on hold. Website: <http://www.electronicfleamarket.com/>

PAARA — Palo Alto Amateur Radio Association

Meets 1st Friday 7:00pm each month at Room H-6, Cubberley Community Center; Net 145.230 - PL 100Hz Mondays at 8:30. See website at <http://www.paara.org>. For more information. contact: Joel Wilhite KD6W, KD6W@ARRL.NET, 650-325-8239

FARS — Foothills Amateur Radio Society

Meets 4th Friday each month at 7:00pm at Covington School, Los Altos. Website: <http://www.fars.k6va.org>

NCDXC — Northern California DX Club

Meets 3rd Thursday 7:00pm each month, Repeater for member info 147.360. Contact president@ncdxc.org. Website: <http://ncdxc.org>. YouTube content: "The Northern California DX Club Official Channel". Cohost of the International DX Convention.

The 50MHz & Up Group of Northern California

This organization specializes in vhf + wak signal and microwave activities. Meetings are held on the first Tuesday of each month. Time is usually 5pm for in person meetings, and 7pm for Zoom only meetings. In person meetings are held Sports Basement, 1177 Kern Ave, Sunnyvale. Always check the website, <http://50MhzandUp.org>, for correct information. Zoom information is also there.

San Mateo Radio Club W6UQ.ORG

Meets, 3rd Friday, January through November.
 Tuesdays & Thursdays, [Directed] Net, 7pm, N6ZX 145.370Hz, -600KHz, PL107.2Hz
 Contact: SanMateoRadioClub@gmail.com, Website: <http://W6UQ.org/calendar>

SPECS

Southern Peninsula Emergency Communication System users Group

Meets each Monday 7:30pm and 8:00pm.
 See: <https://specsnet.org/monday-night-net> for more info.
 Contact: <https://www.specsnet.org/contact> or board@specsnet.org

SCARES

South County Amateur Radio Emergency Service

Meets 3rd Thursday 7:30pm each month, Belmont EOC, Belmont City Hall, One Twin Pines Lane, Belmont CA 94002. Net is on 146.445 [PL 114.8] & 444.50 (PL-100) 7:30 Monday evenings. Contact: President Gary D. Aden, K6GDA 650-743-1265 (D), 650- 595-5590 (N)
 Web: <http://k6mpn.org> E-mail: pres@k6mpn.org

SCCARA

Santa Clara County Amateur Radio Association

Operates W6UU & W6UU/R, repeater 146.985-pl
 Nets: 2m, 7:30pm Mon; 70cm, 10M (28.385) 8PM Thur.
 Meets 2nd Mon each month @ 7:30 PM.
 ARRL/VEC license testing contact 408-507-4698

SVECS — Silicon Valley Emergency Communications

Operates AA6BT repeater (146.115 MHz+)
 Website: <http://www.svecs.net> or contact: Lou Stierer WA6QYS 408 241 7999

WVARA — West Valley Amateur Radio Association

W6PIY six-meter repeater on 52.58MHz. Normally, six-meters is linked with 147 and 223, while 441 and 1286 repeaters are linked.

VHF: 52.58 (-500) 151.4 ctcss	UHF:	
147.39 (+600) 151.4 ctcss		441.35 (+5.0) 88.5 ctcss
223.96 (+1.6) 156.7 ctcss		1286.20 (-12m) 100.0 ctcss

Meetings are 2nd Wednesday of every month except July, August and December.

Website: <http://wvara.org>. Contact: info@wvara.org

(Please send changes to PAARAgaphs editor)



PAARA Weekly Radio Net

Info and Swap Session
 every Monday evening at 8:30pm
 on the N6NFI 145.230 MHz repeater

Week Control Operator

1 st	Doug - KG6LWE
2 nd	Doug - KG6LWE
3 rd	Ric - N6AJS
4 th	Rob - KC6TYD
5 th	Rob - KC6TYD

If you're interested in trying out at Net Control, Contact Doug, KG6LWE. It's good practice, and lots o' fun! Give it a try.

**Meeting Location — Middlefield Road
 between San Antonio and Charleston in Palo Alto. 4000 Middlefield Road**

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KJ6GUK General License, PAARA member

777 Woodside Rd., Suite B, Redwood City, CA 94061

Email: KARLDRESDEN@juno.com

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

Club meetings are on the first Friday of each month, 7:00pm at the Room H-6, Cubberley Community Center.

Radio NET & Swap Session every Monday evening, at 8:30pm, on the 145.230 –600 MHz repeater, PL 100Hz.

Membership in PAARA is \$25.00 per calendar year, which includes one subscription to PAARAgaphs \$6 for each additional family member (no newsletter).

Make payment to the
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NOT A CLUB, CLOSED GROUP OR CLIQUE; AMATEUR RADIO OPERATORS AND FRIENDLY PEOPLE ARE ENCOURAGED TO ATTEND!
 Call in on the N6NFI Repeater, 145.230 MHz, PL® 100Hz

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PAARA Badges

Badges can be ordered through our web- site <https://www.paara.org/pages/members-current.html>. Scroll to the bottom of the page and fill out the info. All badges will be mailed.

The cost for a badge is \$25.00.

PAARAgaphs Ad Rates

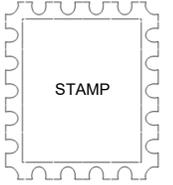
PAARAgaphs accepts paid advertisements from non-members. (short personal ads remain free for members in good standing). All ad rates listed are per issue.

- 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 per issue).
- For Profit organizations and/or individuals: \$5-business card size, \$14.00-quarter page, \$25-half page, \$50 full page or back cover per issue.

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 Walt Gyger, K6WGY.

PAARAgaphs — October 2023

Accept no substitutes. Produced and printed in California USA



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 PAARAgaphs Newsletter
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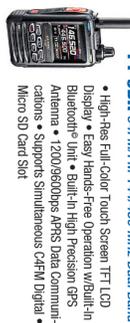
FT-70DR C4FM/FTM 144/430MHz Xcvr

- System Fusion Compatible • Large Front Speaker delivers 700 mW of Loud Audio Output • Automatic Mode Select detects C4FM or FM Analog and Switches Accordingly • Huge 1.105 Channel Memory Capacity • External DC Jack for DC Supply and Battery Charging



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- Narrow Band SDR & Direct Sampling SDR • Crystal Roofing Filters Phenomenal Multi-Signal Receiving Characteristics • Unparalleled -70dB Maximum Attenuation VC-Tune • 15 Separate (HAM 10 + GEN 5) Powerful Band Pass Filters • New Generation Scope Displays 3-Dimensional Spectrum Stream



FTM-200DR | C4FM/FTM 144/430MHz Dual Band

- 1200/9600bps APRS® Data Communications • 2" High-Res Full-Color TFT Display • High-Speed Band Scope • Advanced C4FM Digital Mode • Voice Recording Function for TXRX



FTM-600DR | 50W VHF/UHF Mobile Transceiver

- All New User Operating Interface-E20-III (Easy to Operate-III) • Robust Speaker Delivers 3W of Clear, Crisp Receive Audio • Detachable Front Panel Can be Mounted in Multiple Positions • Supports Optional Bluetooth® Wireless Operation Using the SSM-BT10 or a Commercially Available Bluetooth® Headset



- RETAIL LOCATIONS - Store hours 10:00AM - 5:30PM - Closed Sunday
- PHONE - Toll-free phone hours 9:30AM - 5:30PM
- ONLINE - WWW.HAMRADIO.COM
- FAX - All store locations
- MAIL - All store locations

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