

# PAARAgraphs



The Official Newsletter of the

**Palo Alto Amateur Radio Association, Inc.**

Celebrating 79 years as an *active* amateur radio club—Since 1937

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



## HF Antennas & Ground Effects

Stu Phillips, K6TU

This presentation covers the impact of the ground and terrain on your vertical and horizontal antennas and shows how you can assess real world impact on your own station antennas and use this as an input to propagation predictions.

Stu, K6TU is originally from the UK where he was first licensed as G8HQA in 1973. He moved to California in 1983 and operated as G8HQA/W6 until getting his first US call (N6TTO) in 1988.

After moving to Woodside, CA in 2003, Stu designed and implemented a fully remote controlled station which he uses for chasing DX and pursuing his passion for contesting. An avid "home brewer", Stu has developed several ham radio related products including the FlexRadio Systems FlexControl, the K6TU.NET propagation-as-a-service website and two iPad applications for controlling the FlexRadio Systems 6000 series radios. He also provides consulting on site and antenna selection combined with propagation modeling for DXpeditions including VK0EK, FT4JA, FT5ZM, K9W, K5P, FT4TA and many others.

Stu is a member of the Northern California DX Club, Pizza Lovers 259 (PL259 - a local Silicon Valley based contest club) and a life member of the ARRL. He is President and a founder of Pizza Lovers 259, Past-President and Vice-President/Contest Chair of the NCCC and has participated on the organizing committees of the 2011, 2013 and 2015 International DX Conventions in Visalia California.

Professionally, Stu is a General Partner at Bay Partners - a Menlo Park, California based Venture Capital firm.

## Upcoming Events

• Aug 5  
• Sep 2  
• Oct 7

PAARA General Meeting, 7:00 PM  
Cubberly Community Center, Room  
H-6, 400 Middlefield Rd, Palo Alto

• Aug 17  
• Sep 21  
• Oct 19

Board Meeting, 7:00 PM  
Everyone welcome!  
Location: Marty, W6NEV, QTH



## President's Corner

August 2016

The PAARA sponsored Flea Market is done for another year. The double string of zero sunspots was rather unusual, but the sun is active again. CQP and Pacifcon are on the horizon too. And the PAARA Repeater, W6OTX, is on the air. Have you worked it?



Our club has just completed our annual sponsorship of the ASVARO Electronics Flea Market at De Anza College. We had July this year, and that is one of the hardest months to do the EFM for our club. This year it was especially hard. Not only does it come a couple of weeks after we're all exhausted from Field Day, but this year we shifted the PAARA meeting one week later because of the July 4th Independence Day holiday. This meant that the EFM was the morning right after the PAARA meet-

(President — Continued on page 4)

## W6L (K6WX op) at California QSO Party 2015

Note: this article originally appeared in the December 2015 JUG, the newsletter of the NCCC. CQP is coming up soon, so maybe this will give you an idea of how fun it is. <http://www.cqp.org>

The e-mail came from Joanna, K6YL, “Kristen, how high is your motivation for CQP this year? I was wondering if you feel like a run for the YL award because Rick and I would totally support you. :-)” Usually I answer e-mail pretty quickly, but this time I had to think for a few days. I typically am part of some M/M operation, and with my squirt gun station at home, just never do SO. So, I had to think. Was I up for some serious fun with few breaks? Being the adventurous type, I decided that it would be fun no matter the outcome. At the time of this writing, I still don’t know about the YL award (I know I didn’t set a new record), but at some level, it doesn’t matter. I had a blast!

As CQP approached, I have to admit to some trepidation. Part of it was the usual pre-contest jitters about equipment, and more particularly for me, how awake I’d be - I have serious issues with sleep and have to be very diligent to make sure during the days leading up to the event that I’ve had enough sleep to carry me through a contest. But I also found myself constantly reviewing my own plans for how I was going to manage bands and modes to try to maximize my score. Also, I was hoping that I had the stamina for serious non-stop operation.

When I arrived at our main cabin across from Lake Alpine (we also had a tent cabin up the hill available to us) on Thursday evening, a day after everyone else, I was told that I had missed the snow. Wait, what? Snow! And I missed it. I love snow. Oh well, so it goes, but I wished I was there. It was pretty late, so after a bit of great conversation with the rest of the co-located W6O team (Rick N6DQ, Joanna K6YL, Jack K6JEB, Daniel KJ6SEE, and Harry K4YR - we’d be joined by Andreas N6NU on Friday), I headed to bed to optimize for sleep.

Friday started out with a great pancake breakfast cooked by Joanna. Then it was time to get the rest of the antennas up in the air. They already



**CQP Team**  
**Front: K6YL, K4YR, KJ6SEE, K6JEB**  
**Back: N6DQ, N6NU, K6WX**

had one hex beam up on Rick and Joanna’s tower trailer at about 60 ft and the 40m / 80m dipole pair strung from the tower across the parking lot. These were for W6L. What remained was what went up in the woods behind the cabin with maximal physical separation. See, the plan was to be able to run same-band and same-mode for both W6O and W6L. We weren’t sure it could be done, but Rick and I both put a lot of faith in the Friis transmission equation that models the attenuation one gets from physical separation. As you might expect from the way that power spatial spreading works from the wave equation derived from Maxwell’s Equations, the power reduction is proportional  $1/R^2$ , where R is the distance between the radiators. It’s also proportional to  $\lambda^2$  which means that at higher frequencies the transferred power is significantly less. So, distance is your friend, in addition to aligning nulls and exploiting elevation changes.

We tried to put up another hex beam in the middle of a clearing amongst the trees. Rick valiantly pushed the antenna up, but it pretty quickly hooked itself on pine tree branches, which just seemed planned to trip us up. Hex beams are pretty durable and flexible, and we also assemble them loosely since they won’t be up for long. With a lot of discussion and appropriate shaking, we were able to get a tangled mess of wires and stays to finally fall out of the trees. Whew! We put the whole thing back together, found a new spot with more clearance, and finally got it up,

*(W6L — Continued on page 3)*

*(W6L — Continued from page 2)*

but only about 25 feet. We were hoping that would be enough with the terrain falling off. Taking a break, I went back to the cabin and started working some stations using the antenna on the tower trailer with my own call, just for fun. I must have done that for about 30 minutes. Unbeknownst to me, Rick was listening on the other hex beam. He couldn't hear most of the stations that I was working. That was a shocker. Time to rethink the antenna situation. Rick suggested putting up some high dipoles instead. Anything had to be better than that low hex beam.

Daniel, our resident tennis ball launcher expert, shot some lines up really high in the pine trees. We hauled up dipoles (actually double bazookas) for 15m and 20m, while the rest of the team worked on an inverted L for 80m and got the 40m dipole up. These would be the antennas for W6O. With all of that in the air, we made sure all of the stations were ready to go, making some QSOs on and off, including working CO8LY on the new antennas. We also tested the interference between stations. While it raised the noise floor a bit when the other station was transmitting, it wasn't all that bad. We decided to go with it.

It was beginning to get dark, so that was our cue to get our annual pre-CQP steak dinner at the Lake Alpine Resort's restaurant. It's something we do every year no matter where we are, and it occasionally includes beer being spilt by yours truly! None spilt this time, but plenty of their special hard cider was imbibed by all while we sat by the roaring fire.

In all of the times our team has done a county expedition, we've always missed the practice session the night before the contest. This time we got back in time to participate, but mostly I, at least, just ended up making a few fun QSOs across the US. My Kent single-lever was slipping on the table, so Daniel came up with a plan using vinyl electrical tape to keep it in place. Bravo! With that in the bag, I brought out a bottle of special Japanese Hibiki whiskey that I brought back from a recent trip to Japan. We all had some of this wonderful libation, and then settled in to bed for an early start.

Breakfast was at oh-dark-thirty, again prepared

by Joanna (Thank You!), and we all settled into our operating positions. 9 AM local came and off we went. I started out on 20m SSB which worked pretty well for a couple of ours before I switched to CW. This established a pattern where I would run on one band-mode, do an S&P pass to clean up, then switch modes and do the same again. Then, if CONDX warranted it, I would switch to another band. After 20m, I went to 15m and that was working really well. For a short time I went to 10m and worked a few stations, but propagation wasn't all that good. In general, CONDX were a bit iffy. Back to 15m, and then I switched between 15 and 20 while the sun was up. As the day drew to a close, 40m beckoned with some very nice runs and pileups toward late evening. It was about 5 deep for an hour or so on CW. What a rush! I got up to about 130 Qs/hr for a while. Those are the times I live for when contesting.

80m was rather less intense, but still gave some good rates. I knew that I had to take a sleep break at some point, since I could only operate 24 out of 30 hours, and I waited for the rates to drop. At about midnight, I put more wood in the stove because Andreas and Jack from team W6O were up at the tent cabin and were probably going to come back frozen. Sure enough, they came back at about 1, and that was when the rates were really slowing for me on both 40m and 80m. I tried for another half hour and then called it quits. With the help of some good sleep drugs, I crashed for about 5 hours.

By 6am I was back at the station hoping for some propagation on 20m. I checked 40 and 80, but didn't find much, working what I heard. 20m opened weakly at about 7 and I started calling CQ. Rates were slow at first, but started ramping up as the sunlight fell on the ionosphere. Before long, things were going along nicely. I worked 20 until it started sounding fished out on both fone and CW. Then up to 15m for more fun. I went up to 10m for a little bit as morning wore on and worked a few, including catching a guy who was looking for ten-ten numbers and having a nice brief chat with him. Then I went back to where the money was. I spent much of the rest of the contest on 15m.

*(W6L — Continued on page 4)*



*(W6L — Continued from page 3)*

I had missed two mults along the way: Northern Territories and unbelievably Alaska. I figured that NT was a long shot, but I couldn't find KL7 anywhere. About 30 seconds before my 24 hours was up at just before 2 PM, I heard that someone found an Alaska station on 40m, but there was no time left to get over there and set up to work them.

With my part of the contest over, I grabbed my camera and checked out what team W6O was up to. I got some good pictures and then helped Rick get an early start on the teardown of the nighttime antennas. It was a cold teardown, but with everyone pitching in, everything was down, boxed, and loaded by nightfall.

So, how did I do? My claimed score is 177,240 with 511 Qs on CW and 816 Qs on SSB. The majority of those were split between 20m and 40m. Not record breaking, but not entirely bad either. Propagation was only fair when compared to other years. I don't recall working very many DX stations (prior years have yielded pileups from the UK and other parts of Europe, particularly on 15m). There were definitely times when the rates slowed to a crawl, but there were other times when it was incredibly intense and beyond fun. The best rate I can recall was around 310/hr on SSB.

I want to thank everyone on team W6O. They really made this possible for me. In particular, though, I want to thank Joanna and Rick. They provided the moral support, great station, and even the food (Joanna was always dropping something fun off to much on while I was on the air). It was an unforgettable experience for me. Was it worth it? You bet! CU all in CQP next year.

Update: I did win the YL award and I also won Top Single Op County Expedition. I'm really proud of the latter. My final score was 171,360.

Kristen McIntyre, K6WX

Join the PAARA twitter feed at:

<https://twitter.com/paaraW6ARA>

*(President — Continued from page 1)*

ing. To add insult to injury, all of the usual EFM gatekeepers were unavailable this month, so that left two novices, myself and PAARA VP Marty, W6NEV, to get there at 0300 to man the sellers' gate. I got about 2 hours of sleep after the meeting, and headed over to De Anza. Marty and I managed until he had to leave to get the donuts. Rolf, N6NFI, arrived and completed the food tent setup. That was just about when we were slammed with sellers, so Rolf helped with the gate. The help was very much appreciated. Jim, K6SV, rolled in with the supplies and coffee, so we were set up for business nice and early. Despite all of this effort, it was a disappointing Market financially. The number of seller spaces sold was down from prior years and the food sales were down as well. This was partially made up for by the recent increase in selling price, but the overall decline in EFM participation was hard to miss. We all need to think about how to help the EFM stop this decline and prosper. There were many volunteers who helped out, including KG6LWE, N6NFI, K6SV, KI6LDM, KI6DAR, W6AZ, KD6W, KE6CFX, W6APZ, KK6ISP, K4YR, KF6EMB, N6NV, KD6KYT, KN6QI, and Paula, who needs a callsign soon :). A special thanks to Joel, KD6W, and Gerry, N6NV, for selling great junk at the Market and helping us significantly increase our take. If you helped out and I missed your call unintentionally, please let me know and I'll acknowledge you next month.

We had an interesting phenomenon in June that is somewhat rare for this point in the solar cycle. Solar cycle 24 has been extraordinarily weak by historical standards. June drove that point home with two strings of zero sunspot days. The first was 4 days from June 3 through 6. The second group lasted 8 days and had Field Day right in the middle: June 23 through July 1. Prior to that, there was only 1 day of no sunspots back in July of 2014, and 2 days in 2011. To see some really blank periods you have to go back to 2010, when there were a total of 51 days. Since cycle 24 peaked in April of

*(President — Continued on page 5)*

*(President — Continued from page 4)*

2014, this makes sense as 2010 was at the bottom of cycle 23. It's unusual to see this many days of zero sunspots so early in the decline of the cycle, but given how weak this one has been, it might not be too surprising. What does this say about the next cycle, number 25? Who knows. If we follow the trend, we might expect it to be weaker than cycle 24. These are complex systems, though, so it's questionable whether there is any predictive power here. We'll just have to wait and see.

Have you brought up the new PAARA DMR Repeater, W6OTX? I have and have had some QSOs there. The signal is really great into my office in Cupertino, but sadly doesn't make it into Fremont. Give it a try and have some fun on DMR. Let us know if you can reach it from your QTH. Frequencies and other configuration information are published in PAARAgaphs, as well as at [norcaldmr.org](http://norcaldmr.org).

It's not too early to start thinking about Pacificon and CQP, both in October. You can buy tickets to Pacificon on the web at [pacificon.org](http://pacificon.org). If you're planning a county expedition, the registration form should be going up at [cqp.org](http://cqp.org) any day now. In the meantime ... CU AT THE NEXT PAARA MTG DE K6WX

## **July 20, 2016 Board Meeting Minutes**

The meeting was held at the home of Marty Wayne, W6NEV, commencing at 7:23 PM on July 20th, 2016. In attendance were Kristen McIntyre, K6WX (Pres), Marty Wayne, W6NEV (VP), Jim Thielemann, K6SV (Secretary/Membership), Ron Chester, W6AZ (Treasurer) [via videoconference], Darryl Presley, KI6LDM (Dir), Larry Rebarchik, N6DB (Dir), and non-Board Member Joel Wilhite, KD6W (Technical Coordinator), Clark Martin, KK6ISP, (ASVARO Representative). A quorum was present.

Note that for the present time and until notified otherwise, board meetings will be held at Marty's house. The board thanks Gloria and

Marty for their hospitality and a much quieter environment than the Pizza Parlor.

Kristen, (K6WX), commented on how unique PAARA is compared to other clubs. Case in point, last meeting's excellent presentation on Bee Keeping. Though not directly related to ham radio the meeting was very well attended especially considering being in the middle of summer when attendance is usually noticeably smaller. This is another example of the diversity in interest our members have and the diversity of events PAARA hosts.

Kristen also mentioned that her reserve of stories is getting thin again thus is on the lookout for more stories. If you have committed to a story but not submitted it (there are several people out there fitting this category) please put pen to paper or fingers on the keyboard and let your creative juices flow! Do you have any projects, Field Day experiences, technical articles, hints n kinks, DX contacts, or experiences setting up your station or antenna, on the air experiences that might be of interest? If you have not previously drafted that story or have a new story, now is the time to get a by-line of your own in PAARAgaphs and get that story submitted to Kristen for publication. "Remember it is 'home grown' stories that make PAARAgaphs great", she said

Vice President's Report: Marty, W6NEV, announced that Stu K6TU who will present "HF Antennas & Ground Effects" at the August meeting. Marty also announced having lined up speakers through the end of the year but will have to rework the October speaker as he was advised of a schedule conflict. As always, if you know of someone who would be of interest to the group, let Marty know. Marty also commented on his current efforts at identifying the next PAARA field trip.

Secretary's report: Jim, K6SV, reported that there are currently 185 PAARA members, the most since he's been keeping track. Last year

*(Minutes — Continued on page 6)*

*(Minutes — Continued from page 5)*

at this time there were only 164 members! What a wonderful increase to the membership. He also reported that there were 3 new members joining in July. He noted that as a direct result of Field Day, a total of 4 hams joined PAARA. Additionally he mentioned that the PAARA web site roster was updated in May.

Treasurer's Report: Ron, W6AZ, provided the board with a financial report from the Electronic Flea Market (EFM). The club did make money on the event but it was the smallest amount in the 14 years of data that we looked at. A detailed discussion on various aspects of the event ensued mostly regarding the obvious decline in everyone's participation in the event and ASVARO's role. Joel, KD6W, with the help of Gerry, N6NV, did manage to sell more "good stuff" than all the other EFM sales generated! Ron noted he'd talked with someone at the EFM that had been coming for a long time and had never left and not purchased something.

Under Old Business, Joel, KD6W, reported that the repeater has been operating for a couple of months now. In checking the system log, noticed that it is being used a nice amount but mostly on weekends. He also mentioned that he's working on a temperature probe project so the outside/inside temperature can be monitored and control the cooling fans at the shack. Jim, K6SV, mentioned that he has one of "Gerry's" 100# batteries which he's testing for use as a backup battery at the shack.

There was interest by the board in learning the results from Field Day. Jim, K6SV, indicated that he's nearing completion of the ARRL report. The last thing to do was to do the online filing with ARRL and add it to the ARRL report. Thus he was able to provide the board with the claimed score and some data on how it compared to the last 3 years. The short version is that this year we scored 13,352 points making 781 fewer contacts than last year. Most of the contact reduction was on 15M

though we also had fewer contacts on 20M. Even deleting the two new bonus point categories from our bonus point score, we earned 20 more bonus points than last year.

The board also had a short discussion on our new social presence and how to "use" it in the future. If you've not joined the PAARA twitter feed, PAARA can be "found" at: <https://twitter.com/paaraW6ARA>

The inventory of PAARA "stuff" which is located at various members QTH's was again a topic. As no one really has a handle on exactly what "stuff" there is, it was agreed that an inventory should be conducted to determine what the equipment is, its location and condition. Joel, KD6W, agreed to get the ball rolling starting with the list that is on our web site and identifying whatever he has that's on the list and adding to the list with whatever else he has.

Under new business, Clark, KK6ISP, mentioned an upcoming ASVARO board meeting. He was interested in any items or topics the PAARA board had that he should take to the ASVARO meeting. A wide ranging discussion ensued which resulted in quite a few items for him to consider.

As the meeting had gone on longer than usual, a few items of lesser importance were tabled until next month.

The Board meeting was adjourned at 9:18 PM.

Jim Thielemann  
 Secretary/membership  
 K6SV

**Please welcome to PAARA:**

New members:

Joseph Durand	KM6DCV
Tim Bensch	KK6WHR,
Matthew Vandercook	KK6HWP.

## Field Day Statistics, 2014 — 2016

Band	80	40	20	15	10	6	2	1.5	70 cm	Other	Main Stations Total Contacts	GOTA Contacts	Total Bonus Points	Total Score
<b>2016 Submitted</b>														
CW	208	631	723	211	0	1					1774	1		
PH	215	645	958	83	0	4			5		1910	211		
Totals	423	1276	1681	294	0	5			5		3684		2010	13,352
No sunspots leading into the event, 15 M all but dead											Visitor Total		137	
Note: Two new bonus categories (200 pts) added in 2016														
<b>2015 Score</b>														
CW	217	580	889	361	0					3	2050			
PH	139	459	1274	540	3						2415	183		
Totals	356	1039	2163	901	3						4462		1790	15,186
The 3 "Other" contacts were digital contacts											Visitor Total		130	
<b>2014 Score</b>														
CW	200	499	846	693	87						2325			
PH	242	222	836	777		29	1	1	20	2	2130	193		
Totals	442	721	1682	147	87	29	1	1	20	2	4455		1770	13,946
											Visitor Total		130	



**July Raffle Winners**

- |   |  |
|---|--|
| <p>5th Rachel Kinoshita / KK6DAC / ARRL DXCC List<br/>                 2nd Leo Barnard / AG6XQ / Grundig Eton Traveler III<br/>                 6th Leo Barnard / AG6XQ / Coax Seal<br/>                 7th Bob Kindlund / KK6YRV / Insulators</p> | <p>3rd Dona Kerns / KI6DAR / Battery Tender Junior<br/>                 4th Christopher Hoover / AI6KG / MFJ Mag Mount<br/>                 1st Rich Stiebel / W6APZ / Tytera MD-380 / DMR Digital Portable HT</p> |
|---|--|



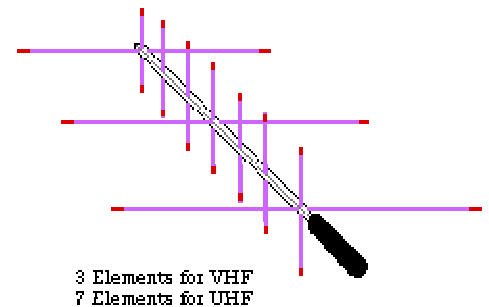
## August Raffle Prizes

- 1st Tytera MD-380 / DMR Digital Portable HT  
 Operates in Analog and Digital Modes  
 5 Watt Output  
 Uses Time-Division Multiple-Access / Double # of Users  
 Private Call / Group Call / All Call



- 2nd Arrow 2m Yagi Antenna  
 3 Element VHF / 7 Element UHF / Max Gain

Work a Satellite with an HT



3 Elements for VHF  
 7 Elements for UHF

- 3rd Lido LM801 EXP HT Cup Holder



- 4th ARRL Small Antennas for Small Spaces Book

- 5th ARRL Repeater Directory 2016-2017

- 6th Coax Seal

- 7th Insulators



## Palo Alto Amateur Radio Association, Inc.

PO Box 911 Menlo Park, CA 94026

### Officers

President .....	Kristen McIntyre, K6WX	510-703-4942
	kristen@alum.mit.edu	
Vice President .....	Marty Wayne, W6NEV	408-246-7531
	mcwayne2@comcast.net	
Secretary .....	Jim Thielemann, K6SV	408-839-6815
	thielem@pacbell.net	
Treasurer .....	Ron Chester, W6AZ	408-243 2221
	ron@taxhelp.com	

### Directors

Director ('15-'16) .....	Byron Beck N6UOB	408-369-1913
	N6uob@arrl.net	
Director ('16-'17) .....	Rob Riley, KI6INR	650 799-1607 (c)
	ki6inr@arrl.net	
Director ('16).....	Larry Rebarchik N6DB	650 465-8210 (c)
	n6db@arrl.net	
Director ('16).....	Darryl Presley, KI6LDM	650 255-2454
	ki6ldm@arrl.net	

### Appointed Positions

Membership.....	Vic Black, AB6SO	650-366 0636
	ab6so@smrn.com	
Database .....	Jim Thielemann, K6SV	408-839-6815
	thielem@pacbell.net	
Chaplain .....	Rick Melrose K6RDM	408-341-9070
	K6RDM@yahoo.com	
Public Affairs .....	<i>Position Vacant</i>	
Station Trustee W6OTX, K6YQT, W6ARA....	Gerry Tucker, N6NV	
Station Trustee K6OTA...	Ron Chester, W6AZ	
Property Manager .....	Gerry Tucker, N6NV	
Fund Raising Coordinator.	Bob Korte, KD6KYT	408 396 4745
	bob@rgktechsales.com	
Badge Coordinator .....	Doug Teter, KG6LWE	650-367-6200
	dteter@wci.com	
Historian Position .....	<i>Position Vacant</i>	
Raffle Coordinator .....	Jim Rice, K6AK	650-851-2274
Field Day Coordinator ...	Doug Teter, KG6LWE	650-367-6200
ASVARO Rep.....	Clark Martin, KK6ISP	
	kk6isp@comcast.net	
Webmaster .....	John Miller K6MM	
	webaron@gmail.com	
Technical Coordinator ...	Joel Wilhite, KD6W	408-839-5948
	kd6w@arrl.net	
QSL Manager .....	Rob Riley, KI6INR	650 799-1607 (c)
	ki6inr@arrl.net	
Speaker Coordinator .....	Marty Wayne, W6NEV	408-246-7531

### PAARAgaphs Staff

Editorial Board	Bob Van Tuyl K6RWY	Kristen McIntyre K6WX
	Ron Chester W6AZ	Vic Black AB6SO
	Joel Wilhite, KD6W	
Editor .....	Bob Van Tuyl, K6RWY	408 799-6463
	rrvt@swde.com	
Back Up Editor .....	Jim Thielemann, K6SV	408-839-6815
	thielem@pacbell.net	
Advertising.....	Ron Chester, W6AZ	408-243-2221
	ron@taxhelp.com	
Member Profiles .....	Diana Lloyd, KK6YGM	650-988-8882
	dianalloyd76@gmail.com	
Technical Tips .....	Vic Black, AB6SO	650-366 0636
	ab6so@smrn.com	
Photographer.....	<i>Position Vacant</i>	

## VE Exams

Redwood City Main Library, Community Conference Room, 4th Saturday 10:30 am each month and 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> or Contact Al, [WB6IMX@att.net](mailto:WB6IMX@att.net)

## Electronics Flea Market

Sponsorship by A.S.V.A.R.O. — Association of Silicon Valley Amateur Radio Organizations  
 Second Saturday of month, March-October, 6am–2pm  
 Howard M. Krawetz, N6HM 650-856-9761  
 Contact: <http://www.electronicfleamarket.com/>

## PAARA — Palo Alto Amateur Radio Association

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

## FARS — Foothills Amateur Radio Society

Meets 4<sup>th</sup> Friday each month at 7:30pm  
 Contact: <http://www.fars.k6ya.org>

## NCDXC — Northern California DX Club

Meets 3<sup>rd</sup> Thursday 7:30pm each month,  
 Repeater for member info 147.360, Thursday 8:00PM  
 Contact: <http://ncdxc.org> or Mike Gavin W6WZ, (650) 851 8699

## QCWA Chapter 11

### Northern California Quarter Century Wireless Association

Meets third Wednesday monthly at Harry's Hofbrau in Redwood City @ 11:30 AM.  
 Guests are welcome. Saturday morning net on 146.850 MHz, PL 114.8

## 50 MHz & Up Group

Meets 1<sup>st</sup> Thursday each month at 7pm in the Texas Instruments Building E conference room in Santa Clara.  
 Contact: <http://50MhzandUp.org>

## SPECS

### Southern Peninsula Emergency Communication System

Meets each Monday 8:00pm on Net 145.27, 440.80 MHz  
 Contact: <http://specsnet.org> or Tom Cascone, KF6LWZ, 650-688-0441

## SCARES

### South County Amateur Radio Emergency Service

Meets 3<sup>rd</sup> 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](mailto:pres@k6mpn.org)

## SCCARA

### Santa Clara County Amateur Radio Association

Operates W6UU & W6UU/R, repeater 146.985-pl  
 Nets: 2m, 7:30pm Mon; 70cm, 442.425+ (pl 107.2) Thur.  
 Meets 2<sup>nd</sup> Mon each month @ 7:30 PM.  
 Contact: <http://www.qsl.net/sccara> or Clark Murphy KE6KXO 408-262-9334  
 ARRL/VEC license testing contact 408-507-4698

## SVECS — Silicon Valley Emergency Communications

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

## TEARS — The Elmer Amateur Radio Society

Dedicated to operational training, knowledge building & FCC exam testing.  
 KV6R repeater under construction.  
 Contact: [AA6T@ARRL.NET](mailto:AA6T@ARRL.NET)

Most members are Extra Class or VE's. See QRZ dot com/kv6r for class info

## 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.  
 Contact: <http://wvara.org>, Bill Ashby N6FFC, 408-267-3118, [president@wvara.org](mailto:president@wvara.org)

## American Red Cross, Santa Clara Valley Chapter

Contact: <http://santaclaravalley.redcross.org> or Scott Hensley KB6UOO, (408) 967 7924  
[shensley@Novell.com](mailto:shensley@Novell.com)

(Please send changes to [PAARAgaphs editor](#))



James Farrey  
 Sales Manager

James Electronics Ltd  
 1355 Shoreway Road, Belmont, CA 94002  
 Tel: 650•592•6718 x 350 Fax: 650•802•1520  
 Direct: 650•802•1511 jfarrey@jameco.com

www.jameco.com

Your grandfather told your father and your father told you.  
 If he had invested his money in real estate he would be a rich  
 man today — what will you tell your children?

Whether to invest or reap the rewards of having invested in  
 Real Estate, Call **KARL DRESDEN**, KJ6GUK, full time Realtor  
 since 1976 — BRE#00525686

Terrace Associates, Inc., 777 Woodside Rd., Suite B, Redwood  
 City, CA 94061; Office Ph: 650-369-7331,  
 Fax Ph: 650-369-7339,

**KARL Cell Ph:** 650-274-8155 General License KJ6GUK

**Email:** KARLDRESDEN@juno.com

## Badges are ready for pickup.

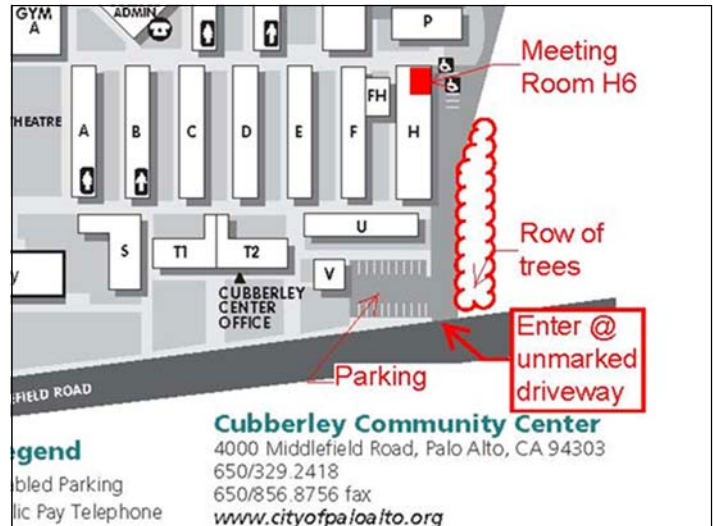
If you would like to  
 order a badge, see  
**Doug Teter, KG6LWE.**

## 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 <sup>st</sup>	Joel KD6W
2 <sup>nd</sup>	Doug - KG6LWE
3 <sup>rd</sup>	Jack - N1VSL
4 <sup>th</sup>	Marty - W6NEV
5 <sup>th</sup>	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**

<http://www.foto.mail.ru/list/shkurkin>

Vladimir Vladimirovich

SHKURKIN

Editing and Translation Services  
 English-Russian-English

shkurkin@ix.netcom.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 \$20.00 per calendar year,  
 which includes one subscription to PAARAgaphs  
 \$6 for each additional family member (no newsletter).

Make payment to the  
 Palo Alto Amateur Radio Association,  
 P.O. Box 911, Menlo Park, CA 94026-0911

Permission is granted to reprint from this  
 publication with appropriate source credit.



This space Available

Ilse Beck, E. A. , KI6IBM  
 Beck Business Services

441 N. Central Avenue, #9  
 Campbell, CA 95008

Enrolled Agent  
 Income Tax  
 Bookkeeping/Payroll  
 Elder Care  
 Consultations  
 Billing and A/R

Phone/FAX: 408-267-8234  
 Email: ilsebeck@jps.net


Ron Chester  
 Santa Clara  
 (408) 243-2221  
 Ron@taxhelp.com

Tax Preparation & QuickBooks Consulting - Ham discount



Photo For Any Occasion  
**WBY Photography**  
 Jack Of All Trades, Master Of Some.  
*Bill Young*  
 408-245-1161 or  
 408-475-6191  
 I come to you photographer.  
 wbyphotography@me.com  
 www.photoforanyoccasion.net

PAARA DMR Repeater Frequencies	
144 – 144.9625 up 2.5 MHz	DMR—NOR CAL Brandmeister Network
440 – 444.475 up 5 MHz	DMR
1.2G – 1284.15 down 12MHz	D-Star Voice
1.2G – 1249.15 half duplex	D-Star Data



PowerFlare® safety lights:  
 Ultra-rugged 360 degree LED beacon  
 for your emergency kit, car, home ...  
**Order on eBay** (search for "PowerFlare")  
 or email sales@powerflare.com

*Silicone*  
**RESCUE TAPE**

**NO ADHESIVE!  
 NO STICKY  
 RESIDUE!**     **8,000 V 500° F**  
 ELEC. INSULATION     HEAT RESISTANCE

**The highest quality coax sealing tape on the market!**

**ENTER YOUR SPECIAL COUPON CODE TO GET THE PAARA DISCOUNT**  
 Order online at [www.rescuetape.com](http://www.rescuetape.com) - (702) 953-0968

Submit items to **PAARAgaphs** by the  
3<sup>rd</sup> Wed to: [rrvt@swde.com](mailto:rrvt@swde.com)  
 Text: .doc, .rtf, or .txt  
 Photos: jpg, png or tiff

Subscription Problems? Contact Database  
 Manager: Jim Thielemann, K6SV,  
 408-839-6815, [thielem@pacbell.net](mailto:thielem@pacbell.net)

**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, \$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 Ron Chester, W6AZ**



