

# PAARAgraphs



The Official Newsletter of the

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

Celebrating 81 years as an *active* amateur radio club—*Since 1937*



## FT5ZM Amsterdam Island 2014 Dxpedition Video

**Dxpedition Lead  
Bob Allphin, Jr.; K4UEE**

This presentation is a 52 minute video written, filmed and narrated by Bob.

Bob Allphin has participated in, led, or co-led DXpeditions to ELEVEN of the DXCC "top 10 most wanted". They are Baker/Howland, Heard Island, Bhutan, South Sandwich Islands, South Georgia Island, Peter I Island, Lakshadweep, Desecheo Island, Saba/St. Eustatius, Amsterdam/St. Paul and Navassa Island. In 2012, the HKØNA Malpelo Island DXpedition ranked #12 "most wanted", set a new World Record for QSOs for non-hotel, non fly-in DXpeditions.

Since retiring fifteen years ago to pursue DXpeditioning more or less full time, he has participated in ten MAJOR DXpeditions that have made over 1.25 million QSOs. He has ELEVEN "DXpedition of the Year" plaques hanging on his wall.

Bob is an active contester and has participated in 38 contest DXpeditions. From the mid - 80s through the early 2000s, set five single operator/single band World Records and was a competitor in two World Radio Team Championships (WRTC) events in 1996 and 2000.

Bob is a member of the CQ DX Hall of Fame, Board of Directors of INDEXA, current President of The KP1-5 Project, and former Chairman of the ARRL DX Advisory Committee (DXAC). He is a member of the Voodoo Contest Group, FOC (First Class Operator Club), A-1 Operators Club, the Southeastern DX Club Hall of Fame.

## Upcoming Events

Feb 1	PAARA General Meeting, 7:00 PM
Mar 1	Cubberly Community Center, Room H-6, 4000 Middlefield Rd, Palo Alto
April 5	
Feb 20	Board Meeting, 7:00 PM
Mar 20	Everyone welcome!
April 17	Location: Marty, W6NEV, QTH



## President's Corner

February 2019

2019 is starting off on a very positive footing for the future of Amateur Radio. If only I could say the same for HF band conditions. The Winter Banquet is soon and we have a Flea Market coming up. And, of course, the Yuma Hamfest is on the horizon.



As I write this, I have just returned from the ARRL January Board Meeting. Board meetings occur twice a year, in January and July. While my history with the ARRL Board is short, I have come to understand that this was one of the most consequential meetings in recent history. You may have heard that we had a significant change in the makeup of the board with new Directors in the New England, Hudson, Northwestern, and Roanoke divisions. These were all hotly contested elections and the candidates were advocates of a membership-centric view of the League's govern-

*(President — Continued on page 4)*

## Pacificon, Ed English and the T-784/GRC109

Hiroki Kato, AH6CY

A wonderful and utterly unexpected thing happened to me at this year's Pacificon. I had just parked my car and started to walk through the big parking lot towards the front entrance of the Marriott Hotel when a tall gentleman (well, everyone is tall for me; I am only 5'4", the average height for my generation of native-born Japanese) came up and asked if I was the guy who gave a talk on a spy radio last year at Pacificon. I said "yes", then he said "Come with me I have something for you." He took me to his car and produced a cardboard box containing two black metal boxes. That something turned out to be a T-894/GRC-109 spy radio transmitter and its companion PP-2685 power supply. It was a gift from Ed English, W6WYQ. The tall gentleman was Ed's friend and neighbor Steve Soenke, KH0BF. The two men drove up from San Luis Obispo along with Ed's nurse, Carol, for an annual attendance at Pacificon. Ed and Steve were apparently in the audience when I gave a talk on the WWII era Paraset spy radio at last year's Pacificon.

I sat down with Ed, Steve and Carol that afternoon for a wonderful eye-ball QSO. Originally from Canada, Ed is 92

years old and was a radio man who flew with both the Royal Canadian and the US Air Force during and after WWII. (The US Air Force was then known as the United States Army Air Force, USAAF, a component of the US Army). He knew General Curtis LeMay, the chief architect of the B29 bombing of Japan during WWII. LeMay was a ham (W6EZV) and an early advocate of SSB transceivers onboard Air Force aircraft in post WWII. He also orchestrated the C47 transport planes, on which Ed served, to fly the famed Berlin Airlift missions to Berlin's Tempelhof airport to break the Soviet blockade in the early stage of the Cold War. The C47 was the first aircraft on which an SSB radio was installed as standard equipment. I could have listened to Ed for hours about his exploits in those days.

Steve successfully upgraded to the General class and Carol took the Technician exam and passed during the Pacificon visit. Congratulations! By the way, Steve got his interesting call sign, KH0BF, when he worked in Saipan in southern Pacific for a government agency.

The T-894 and its matching R-1004 receiver as well as the PP-2685 power supply that supplied power to both were used during the Vietnam War and until the 1980s for clandestine communication by the CIA and the

(T-784 — Continued on page 3)



**Fig 1 T-894 with the top cover which closes the transmitter tightly sealed with a gasket.**



**Fig 2 The top view of the T-894.**

(T-784 — Continued from page 2)

Special Forces. They are housed in virtually indestructible mud- and water-proof sturdy metal boxes as you see in this photo. These radios were occasionally hidden in mud or under water to avoid detection. They were also dropped from an aircraft.

The transmitter is for CW only and covers 3-22 MHz in four bands. It is crystal-controlled and has no VFO. The final power tube, 2E26, produces 10-15 watts depending on the band. All the controls and the straight key were mounted on the horizontal front panel. Tuning indicators were neon bulbs and antenna coupling was indicated by a common 6.3v flashlight bulb, rather than by using any meters. There is some resemblance to the Paraset in these arrangements. Here is the schematic:

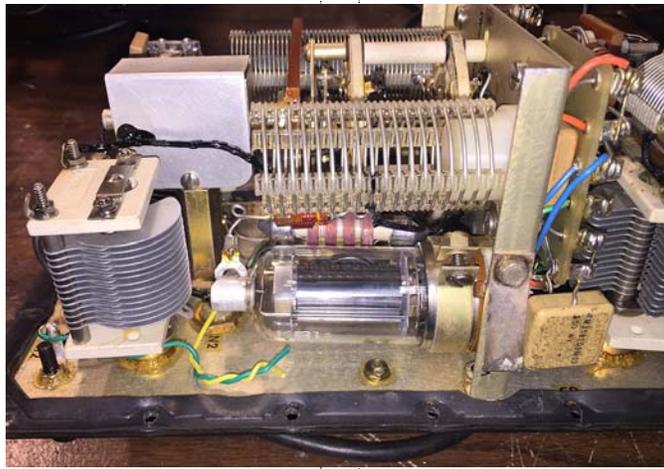
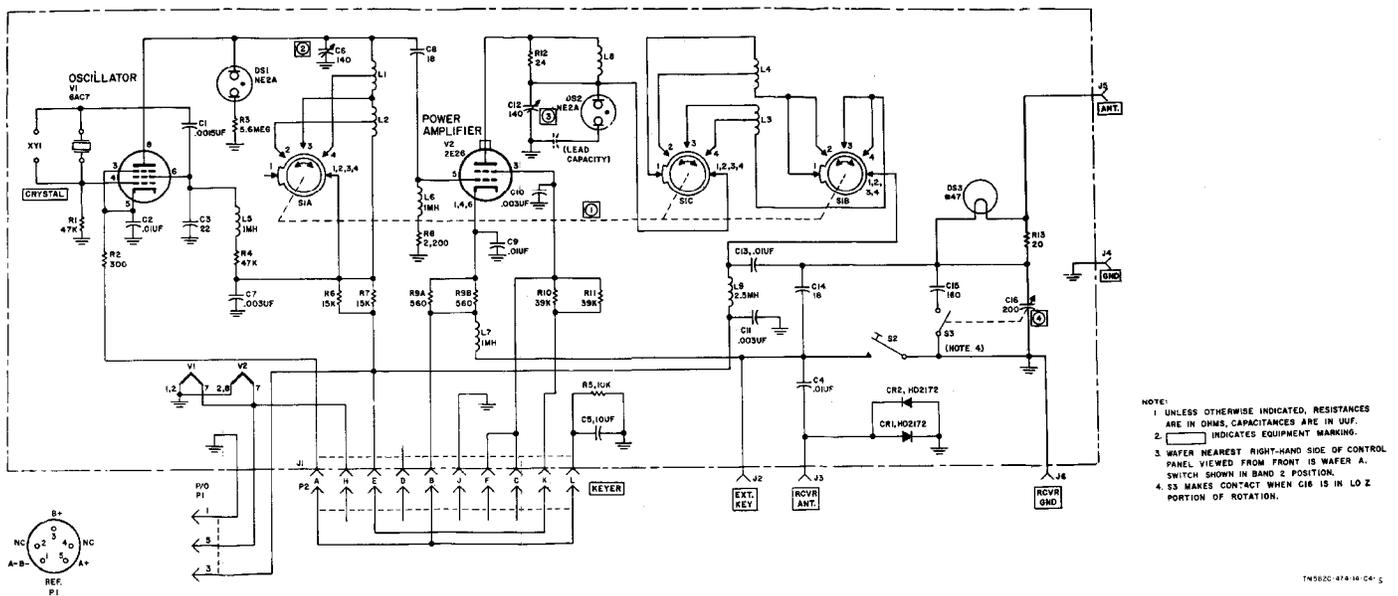


Fig 3 The inside of the T-894.

some work, though as radios go they have relatively simple schematics unlike the ART-13, and were fairly easy to restore. I had most of the necessary parts in my junk box, including NOS (“new old stock”) 2E26 and 6CA7 tubes. The major work I had to do was rebuilding the power supply. The original power supply used selenium rectifiers, the innovative

component used widely from the late 1940s through the 1960s, replacing tube rectifiers of the prior period. Selenium diodes do not last long and they produce toxic powders as they age and begin to disintegrate. They are no longer in use for radios and no longer manufactured. The EPA, in fact, bans it now. But fortunately we now have cheap but efficient and virtually indestructible silicon diodes which are common-



As soon as I returned from Pacificon, I started working on the restoration of the T894/GR-C109 and PP 2685. I have in the past restored a number of WWII era military radios, including an ART-13 transmitter and two BC-348 receivers which were standard equipment on the B-29 bomber. The two pieces Ed gave me required

ly available as bridge rectifiers. I had a bunch of those in my junk box.

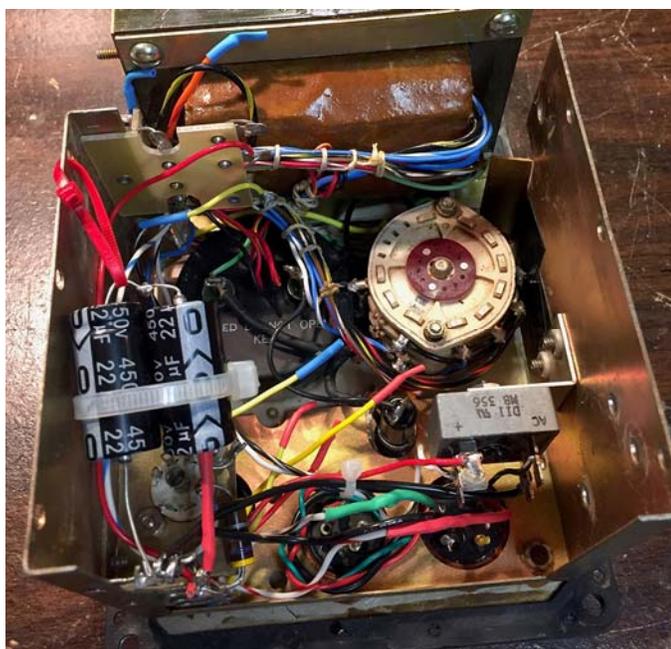
The T894/GRC109 is now working and I had QSOs on 40m despite the poor band condition

(T-784 — Continued on page 4)

(T-784 — Continued from page 3)



**Fig 4 Top view of the PP-2685**



**Fig 5 The restored/reconstructed PP-2685. There is a silicon bridge rectifier on the right bottom.**

used my Yaesu FT-817 for receiving. I plan to try operating the transmitter as a portable outdoors rig by using an inverter-assisted power supply.

Nice things happen when you attend Pacificon.

-end-

(President — Continued from page 1)

ance. With support for a more transparency oriented agenda, many Board motions were passed which I believe will strengthen the League well into the future. We haven't done everything that we believe is necessary, but my opinion is that we did the most necessary things first so that we can sustain momentum to July and beyond. Some of what you will see in the soon to be published minutes may seem like either management minutia or steps backwards. Let me assure you that all are necessary and important steps. One very important one that allows me to write this is that the Code of Conduct has been repealed in its entirety. I am now on the Programs and Services committee and have asked to be added to the Electromagnetic Compatibility committee. I hope that I can continue to make positive contributions to the future of our beloved hobby through these groups. Lastly, I nearly was snowed in on the last day. There was a significant storm that hit Hartford the night before my flight. While almost everyone else around me was having their flights cancelled, somehow I was alright. We took off only about 40 minutes late after a trip to the deicing pad. Thank goodness!

HF band CONDX continue to be grim looking, at least from the numbers. There were 222 days with zero sunspots in 2018, and 2019 is trending the same way with 15 zero sunspot days already. This has left the 10.7 cm SFI, or Solar Flux Index, hovering at or below 70 on most days. That is extraordinarily low. The interesting thing, though, is that there is still a lot of HF activity, particularly when using FT8. FT8 has the ability to work under the

(President — Continued on page 5)

lately and despite my modest vertical antenna. I

(President — Continued from page 4)

noise floor, allowing contacts in band CONDX that would otherwise be unusable. Digital signal processing is an amazing technology. I think it's one of the most exciting advances in ham radio in a long time. Current predictions put the solar minimum at later this year. That means we will have a long, slow climb back up the solar activity curve that will still last for a couple of years or more. Now is the time to get familiar with the software that implements these digital modes and see what fun can be had on the bands even at this activity nadir. When you do make those contacts, be sure to tell us about them at the next PAARA meeting.

The FARS sponsored Winter Banquet will be coming up soon on February 15th. It's late this year, so note the date. Sadly I won't be able to make it because it's the same date as the Yuma Hamfest in Arizona. I hope you'll join one of these activities, as they are the highlight of the year for me. I almost never miss them. In fact, this will be the first Winter Banquet I've missed in maybe 15 years.

Before I finish, I want to remind everyone that PAARA will be sponsoring the first Electronics Flea Market of the year on March 9th. I will be looking for volunteers very soon. If you can help out, please let me know. We would sure appreciate your help. 73 ES CU AT PAARA EFM IN MARCH DE K6WX

### January 16, 2018 Board Meeting

Through an email exchange, the PAARA board decided there were no pressing agenda items that required us to meet without Kristen as she was in traveling to the ARRL board meeting.

The board was also notified of the passing of a long time Ham and PAARA member Ronald Seefred, W6JVL.

I'd like to remind all members to look at your PAARAgaphs mailing label for the year your membership expires. You can renew anytime

### Amateur Radio Annual Winter Banquet (sponsored by FARS) Friday, February 15, 2019 – 6:00 PM

Highlights from the Archives:  
Early Amateur Radio and  
Accounts of SOS Calls

Bob Rydzewski, KJ6SBR,  
California Historical Radio Society

Reservations Required:

[fars.k6ya.org/banquet/banquet2019](http://fars.k6ya.org/banquet/banquet2019)

Please join the Foothill Amateur Radio Society (FARS) for their annual Amateur Radio Winter Banquet at Michael's restaurant in Shoreline Park. Many PAARA members enjoyed the event and won prizes last year.

This event is open to anyone who wants to attend, but reservations are required. Bring a spouse or a friend, and, of course, bring a few dollars for the raffle. There are over \$1,500 in great prizes

All sign-ups should be received by 6:00 PM on February 11th. You can sign up online on FARS web site using PayPal. Or you can download and mail a paper reservation form with a check. Mailed sign-ups should be posted by February 7th to be received on time.

through our website, <http://www.paara.org/pages/members-current.html>, drop a check in the mail or at a meeting.

Repeater update, the 2M DMR repeater was reinstalled 1/12/19, and is working. Both repeaters are now reporting on Brandmeister.

Jim Thielemann,  
Secretary/membership  
K6SV



## **January Raffle Winners**

*Front to Back, Left to Right*

- 1<sup>st</sup> Arrow Dual Band Yagi Antenna, Herb, WY6G
- 9<sup>th</sup> Coax Cable, Ric, N6AJS
- 3<sup>rd</sup> Elenco Soldering Station, Kristen, K6WX
- 5<sup>th</sup> Duracell Explorer 120 Lumen Headlamp, Greg, KE7DO
- 6<sup>th</sup> Drill/Driver, Socket Set, Rob, KC6TYD
- 4<sup>th</sup> Extech Infrared Thermometer, Bill, KM6QCS
- 7<sup>th</sup> Jonard Tool, High-Leverage Cable Cutter, Truman, N6TYRU
- 8<sup>th</sup> Antec, LED, Tri-Cool Fan, Truman, N6TRU
- 2<sup>nd</sup> Daiwa CS201A Coax Switch, Mike, N6IMY

## Palo Alto Amateur Radio Association, Inc.

PO Box 911 Menlo Park, CA 94026

### Officers

President .....	Kristen McIntyre, K6WX kristen@alum.mit.edu	510-703-4942
Vice President .....	Marty Wayne, W6NEV w6nev@arrl.net	408-234-8023
Secretary .....	Jim Thielemann, K6SV thielem@pacbell.net	408-839-6815
Treasurer .....	Ron Chester, W6AZ ron@taxhelp.com	408-243 2221

### Directors

Director ('19-'20) .....	Joel Wilhite, KD6W kd6w@arrl.net	408-839-5948
Director ('18-'19) .....	Walt Gyger, K6WGY walt@tradewindsaviation.com	408-921-5901
Director ('19) .....	Larry Rebarchik N6DB n6db@arrl.net	650 465-8210
Director ('19) .....	Darryl Presley, K16LDM k16ldm@arrl.net	650 255-2454

### Appointed Positions

Membership .....	Vic Black, AB6SO ab6so@smrn.com	650-366 0636
Database .....	Jim Thielemann, K6SV thielem@pacbell.net	408-839-6815
Chaplain .....	Rick Melrose k6rdm K6RDM@yahoo.com	408-341-9070
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	
Asst. to the Treasurer....	Bob Korte, KD6KYT bob@rgktechsales.com	408 396 4745
Badge Coordinator .....	Doug Teter, KG6LWE dteter@wvci.com	650-367-6200
Historian Position .....	<i>Position Vacant</i>	
Raffle Coordinator .....	Jim Rice, K6AK	650-851-2274
Field Day Coordinator ...	Doug Teter, KG6LWE	650-367-6200
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Webmaster .....	John Miller K6MM webaron@gmail.com	
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QSL Manager .....	Marty Wayne, W6NEV	408-234-8023
Speaker Coordinator .....	Marty Wayne, W6NEV	408-234-8023

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	Joel Wilhite, KD6W	
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Technical Tips .....	Vic Black, AB6SO ab6so@smrn.com	650-366 0636
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-September, 6am–12 noon

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.k6va.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, 10M (28.385) 8PM Thur.

Meets 2<sup>nd</sup> 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+)

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](mailto:PAARAgaphs editor))



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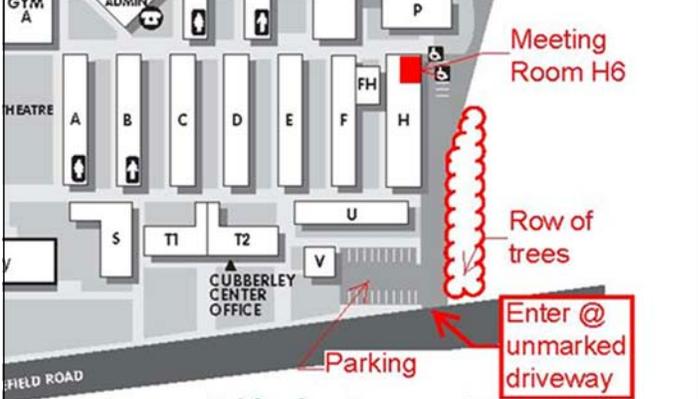
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## PAARA Weekly Radio Net

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 - W1VSL
4 <sup>th</sup>	Rob - KC6TYD
5 <sup>th</sup>	Rob - KC6TYD

If you're interested in trying out at Net Control,  
 Contact Doug, KG6LWE. It's good practice,



**Cubberley Community Center**  
 4000 Middlefield Road, Palo Alto, CA 94303  
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 650/856.8756 fax  
 www.cityofpaloalto.org

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**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  
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NOT A CLUB, CLOSED GROUP OR CLIQUE; AMATEUR RADIO OPERATORS AND FRIENDLY PEOPLE ARE ENCOURAGED TO ATTEND!

**PAARA Badges**

You can order a \$20 badge from the PAARA web site or at a meeting through Doug Teter, KG6LWE, and usually pick it up at the next meeting.




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**PAARA W6OTX 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	Off line
1.2G – 1249.15 half duplex	Off line



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 408-839-6815, [thielem@pacbell.net](mailto:thielem@pacbell.net)

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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.**

