

W6OTX**W6ARA**PAARA NEWSLETTER
VOLUME 65, NUMBER 1, Jan 2014**K6OTA****K6YQT**

PAARAgraphs



The Official Newsletter of the

Palo Alto Amateur Radio Association, Inc.Celebrating 77 years as an *active* amateur radio club—*Since 1937*

January's Speaker: You Are It's Home Brew Night

**That means everyone bringing some
home brew creation is a speaker!**

Blow the dust off and pack your latest
projects and bring them to show and tell
night at PAARA.

Jan. 3, 2014 — 7:00 pm
Cubberley Community Center, Room H-6
4000 Middlefield Road, Palo Alto, CA 94303

Oakland Voices: A Town Hall on Our Right to Communicate Featuring Tom Wheeler, the New Chairman of the FCC

Tom Wheeler, the new chairman of the Federal Communications Commission, says he's all about representing the people — and *not* big industry. On Jan. 9, he's heading out to Oakland to make good on that promise — and hear from you.

As Chairman Wheeler sets the agency's agenda for the next four years, he needs to hear how policies on media ownership, the Internet and journalism affect our nation's most vulnerable residents. This is our chance to tell him face to face about the kind of media system that best meets our needs — and to advocate for the health and well-being of our families and our communities.

Free Press and the Center for Media Justice, along with our allies in the Voices for Internet Freedom

(Continued on page 5)

President's Corner

January 2014

Greetings from JA-land. I'm on one of my semi-annual trips to see what's going on over here in my second home and visit with my many friends. As we've wound down 2013, we've had a spectacular end to the Amateur Radio year, with events, contests, and big raffles.

It was a very long flight out this time, or at least it seemed that way. I was in an extremely cramped seat where I couldn't get my laptop deployed very easily, and I could hardly move my legs. I was next to a guy who kept moving around as he slept, and who somehow managed to kick the case for my headphones a row back behind us. I didn't find it until everyone had left the plane and I could hunt

around. *sheesh* The food was terrible too. It wasn't my usual airline, needless to say, but so it goes. I did have a nice conversation with a young gentleman named Paul in the other seat who is an engineer working on oil drilling using hydraulic fracturing. I've been fascinated by that technology, so I had lots of questions ready for him. That aside, though, it was 10 hours of relative torture until I finally arrived in the very civilized nation of Japan, where my agitation was immediately quelled. It's good to be back.

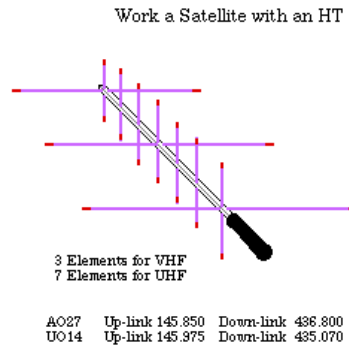
For those of you who missed the PAARA Dream to

(Continued on page 6)



PAARA Jan. 3rd Meeting *and* *“First Event of the New Year”* Welcome Members and Visitors / Raffle Prizes:

**FIRST PRIZE: Arrow Yagi / 3 Element VHF / 7 Element UHF
 Max Gain**



SECOND PRIZE: Alpha Delta 2B Coax Switch



THIRD PRIZE: MFJ LCD 24/12 Hour Dual Band Clock



FOURTH PRIZE: Two FRS Radios

FIFTH PRIZE: LF-01 LED Lite Flare

SIXTH PRIZE: ARRL Repeater Directory

SEVENTH PRIZE: Bongo Ties

Since Feb. 2003, 256 Radios, including SEVEN Elecraft K3's, a Yaesu FT-847, an Icom 706 MK IIG, a Yaesu FT-897D, and TWO Elecraft KX1's have gone to Fellow Hams.
 Special Thanks to Howard, Jon, Mark, and everyone at HRO for their continued SUPPORT!

K6AK Jim Rice

Digital Amateur Television – A Quick Update for the Fall 2013

Joel Wilhite – KD6W

Part 1 of a 3 part series

Anybody that attended any of my DATV presentations witnessed first hand the complexities of digital communications using compression and how challenged the professional broadcast industry is trying to leverage the advances in science and technology. Keeping pace with digital compression in video and audio technology is a huge challenge for the industry but has produced a windfall of obsolete gear for amateur radio. As the industry accelerates into more advanced architectures the older generation of gear is being replaced in wholesale fashion. Fortunate for the ham community, many of those devices removed from service still work and some wind up on the secondary market sites like *eBay*. I will also follow up here with more updates from around the amateur radio community and go back over the salient points for building up the necessary resources to first receive and ultimately transmit digital television in the amateur bands.

Until recently, all amateur television has been analog traditionally using the 70cm bands and up. While there were a few home brew efforts to bring up some low cost digital compression gear (based on development boards) I have found two companies which offer a hardware encoding and modulation solution, one in Germany the other in Italy. Those designs haven't proliferated for a number of reasons but most likely from the competition of the secondary markets to offer older generation professional products at substantially reduced costs. I infrequently monitor *eBay* and see professional gear show up on *eBay* at incredibly low prices and then, just as quickly as it shows up it goes away. The reason is simple, secondary market resellers are desperately trying to maintain a mid range price of the units they already have on their shelves so they quickly round up all the low price gear and then resell it at a higher price. This activity won't last forever and the quick acting ham bidder can easily snipe the low price units when they show up. Even though this may seem counter-intuitive to building your own kit, the price you pay

for secondary gear is virtually inconsequential to the time and effort you would spend developing your own effort. Alternatively, there are a growing number of software solutions which are more palatable to software savvy amateur developers.

I was very encouraged to read about the effort from the BATC called the Digilite Project. The project is currently being managed by a group of hams being lead by Dave, G8AJN and is geared towards supporting software encoding using a low cost PCI card from **Hauppauge** and the **VLC** software encoder feature. The hardware package the BATC group offers allows the user to process the encoded output through the USB interface from a computer to drive their modulator in the 1.2GHz band. The one trade off in their design is the limits imposed by the fixed filters which will limit the bit rates in the software encoder. By reducing the symbol rate, they are forced to operate the encoder at a very low bit rate requires a very high level of compression. Simply put, its working but likely taking the computer processor to the very limits. As David noted, the 1.5Mb/s compression rate doesn't fit inside the 2 mega symbol rate and so they had to modify an "INI" file to allow the lower settings needed to run the encoder low enough. Conversely, the hardware based solution I run in my doesn't have any of these restrictions.

My project is based solely on commercial off the shelf solutions. Having a complete hardware solution would normally come at a great cost, roughly thousands of dollars if purchased from new stock. What I have discovered from monitoring the resale boards are those rare moments of opportunity and great timing. Knowing what to look for and being aware of the pit falls in certain designs is a huge risk and unknown to the general ham population but I have over come some of those issues and put the first systems together and made a YouTube video to describe that system.

<http://www.youtube.com/watch?v=0rkR55dai7q&feature=related>

Moving to video is a fairly significant paradigm shift for most still clinging to their brass. But in this day and age of everybody being a television star (whether they know it or not) it shouldn't come as a surprise how very few hams have actually built

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PAARagraphs—Jan 2014
Celebrating 77 years as an active ham radio club—Since 1937



#2



#8



#9



#7



John Miller

Chuck Hein

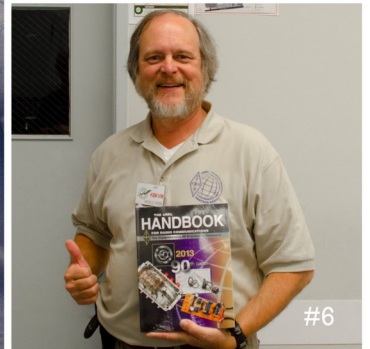
Jim Rice



#4



#5



#6



#10



#3

December Board Meeting

Once again outside commitments have intervened on the board being able to meet. As there is no pressing business, the board voted to meet in January. We do have one item that needs addressing. Our meeting location at the PA Red Cross building is no longer available, as the Red Cross has moved out. If anyone knows of a new meeting location, preferably near a train station, please let a member of the board know. At this time, it looks like the January meeting will be held at the Round Table Pizza Parlor in Menlo Park.

Seven members have renewed via PayPal.

New members:

Robert Beard KG6FPZ
 Edouard Lafargue W6ELA
 Rob Fenn KC6TYD
 Lew Bloch KD3UW

PAARA Badges Ready for Pick-up:

K6FTF	Mark	San Jose
KJ6GBE	Sreendish	Redwood City
KG6GYG	Art	San Jose
N6JCY	Joani	San Jose
KI6JLS	Joanne	Palo Alto
KG6QKN	Francis	Palo Alto
KG6QKO	Kali	Palo Alto
KJ4SGT	Xiande	Campbell
KF6SRD	Chuck	Palo Alto
K6TSR	George	Portola Valley
KG6ZWO	Henri	Palo Alto

K6VVK	Vincent	Palo Alto
N6UOB	Byron	Campbell
AG6WT	Ray	Union City

Jim KI6KVV

(Continued from page 1)

Coalition, hope you can join us for this special event. We know that real change in Washington happens only when policymakers meet with the people they represent. Let's share our stories — and tell Chairman Wheeler about the impacts of an increasingly corporate media environment on our communities.

For far too long the FCC has listened only to big business. Let's stand up for Oakland and tell the FCC what kind of media we need.

Hope to see you in January,

Mary Alice Crim, amalia deloney and the Voices for Internet Freedom Coalition

Free Press is a nonpartisan organization building a nationwide movement for media that serve the public interest. Learn more at www.freepress.net

Link to RSVP:

<http://www.eventbrite.com/e/oakland-voices-a-town-hall-on-our-right-to-communicate-featuring-tom-wheeler-the-new-chairman-of-tickets-8959306527>

Sent by: Jake Whiting K6MP

PAARA 12/6/13 Raffle Prize Winners (opposing page)

1st Prize / Chuck Hein / N6BO / Elecraft K3 HF-6m Transceiver

2nd Prize / Tony Kooij / W6AWK / Icom IC-V80 HT

3rd Prize / Mike Wimble / KM6WP / Two West Mountain COM Speakers

4th Prize / Ryan Ewing / N6RYN / "Array of Light" third edition by Tom Schiller N6BT

5th Prize / Josh Lehan / K6JSH / Digital Multimeter

6th Prize / Jim Thielemann / KI6KVV / ARRL Handbook 2013

7th Prize / Paul Ewing / N6PSE / ARRL Antenna Book 22nd Edition

8th Prize / Charles Hein / N6BO / ARRL Emergency Power Book

9th Prize / Joanna Dilley / K6YL / ARRL More Wire Antenna Classics Book

10th Prize / Joe Castellano / W6SNV / Wake Atoll Sea Shell

(Continued from page 3)

used or activated an amateur television station. I'll admit I have way more fun behind the microphone since I don't need to clean my bench off first before I turn the radio on. But with the advancements in readily available off the shelf technology and the increasing availability of commercial technology showing up in secondary markets, I believe the value of these new systems and the new skills it will provide to the amateur community will benefit society as a whole, not to mention in the end it gets me to clean up my shack.

73 – KD6W

Joel Wilhite works as a technical marketing manager for Harmonic Inc. and can be reached at kd6w@arrl.net

(Continued from page 1)

Reality Raffle X, you really missed out on your chance at winning a K3, and on a great talk by John Miller, K6MM. John did a fantastic job of relating the history of Wake Atoll, as well as the feel of the DXpedition as it unfolded. I really enjoyed his presentation, and I hope you did too. The K3 was won by Chuck, N6BO, who is already trying to figure out what additional options to buy. Chuck likes to work digital modes, so he's even stuck about whether to upgrade to the 100W amplifier. We'll have to keep an eye out to see what he does with it.

Of course, there was one other event that happened that evening, and that was the PAARA officer elections. Daniel, KJ6SEE, carried out his duty as election chair and announced the new PAARA leadership team for 2014. Let's all welcome board members Darryl KI6LDM, Rebar N6DB, Byron N6UOB, Secretary Jim KI6KVV, Treasurer Ron W6AZ, Vice President Marty W6NEV, and me, Jane Random K6WX as your humble author and President for another term. Please let us know if we can do anything to serve you and improve our club. And a big thank you to Daniel for being the election chair.

I visited the Northern California DX Club's Holiday Luncheon in early December this month. I've been a member of that club for a bit now, and I almost always make the luncheon, as long as it's before I leave for Japan. We had a great talk from Bob, KK6EK about how to mount a DXpedition, and about how costly they are becoming. He is trying to get one together to activate Heard Island, VK0, and the projected costs are just astronomical; greater than a million dollars. He spoke of strategies for mitigating these costs by combining DXpeditions with scientific expeditions. It's an intriguing concept.

Don't forget that we have the PAARA / FARS, FARS / PAARA Winter Banquet coming up on January 17th at Michael's at Shoreline. There's a great raffle with \$1,400 worth of prizes! It's a great fling after all the Holiday stuff is over, and a great time to see all of your Ham Radio friends. I hope you'll join us. Information can be obtained on the PAARA or FARS websites.

Until then CUL ES 73 DE K6WX—Kristen (K6WX)



Palo Alto Amateur Radio Association, Inc.

PO Box 911 Menlo Park, CA 94026

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	thielem@pacbell.net	
Treasurer.....	Ron Chester, W6AZ	408-243 2221
	ron@taxhelp.com	

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	ki6inr@arrrl.net	
Director ('14)	Larry Rebarchik N6DB	925 353-7952 (cell)
	n6db@arrrl.net	
Director ('14)	Darryl Presley, K16LDM	650 255-2454
	ki6ldm@arrrl.net	

Appointed Positions

Membership	Vic Black, AB6SO	650-366 0636
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Chaplain.....	Rick Melrose K6RDM	408-341-9070
	k6rdm@arrrl.net	
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@wcvl.com	
Historian Position	<i>Position Vacant</i>	
Raffle Coordinator	Jim Rice, K6AK	650-851-2274
Ticket Master.....	Marty Wayne, W6NEV	408-246-7531
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	ab6so@smrn.com	
Photographer	Bill Young, K6VWO	
	jsdinger@sbcglobal.net	

Future PARRA Meeting Dates

Jan 3rd, Feb 7th, Mar 7th

VE Exams

3rd Saturday each month, 10:30AM, 145.23- PL=100Hz
 Redwood City Main Library, Community Conference Room
 1044 Middlefield Road, Redwood City, CA
 Contact: <http://amateur-radio.org> or Al, 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.electronicflea.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 our website at <http://www.paara.org> for more information or contact: Joel Wilhite KD6W, KD6W@ARRL.NET, 650-325-8239

FARS — Foothills Amateur Radio Society

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

NCDXC — Northern California DX Club

Meets 3rd 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

NorCalQRP — Northern California QRP Club

Meets 1st Sunday each month
 Contact: <http://www.norcalqrp.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 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 W6UJ & W6UU/R, repeater 146.985-pl
 Nets: 2m, 7:30pm Mon; 70cm, 442.425+ (pl 107.2) Thur.
 Meets 2nd 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: AAGT@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 3rd Wednesday of every month.
 Contact: <http://wvara.org>, Bill Ashby N6FFC, 408-267-3118, N6FFC@Juno.com, or N6FFC@ARRL.NET

American Red Cross, Santa Clara Valley Chapter

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

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



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 Sales Manager

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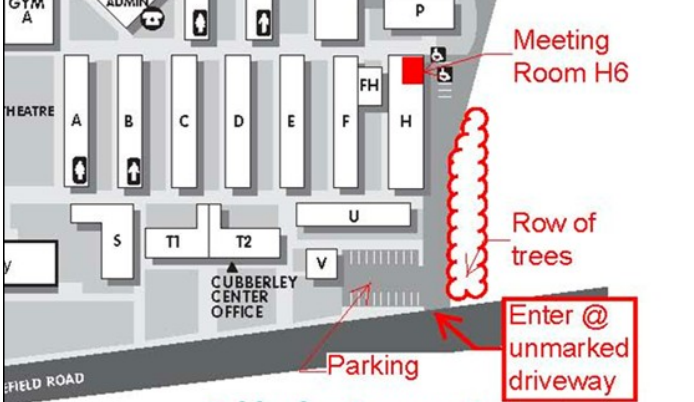
Badges are ready for pickup.

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

<u>Week</u>	<u>Control Operator</u>
1 st	Open
2 nd	Doug - KG6LWE
3 rd	Jack - N1VSL
4 th	Marty - W6NEV
5 th	Up for Grabs!

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.



Cubberley Community Center
 4000 Middlefield Road, Palo Alto, CA 94303
 650/329.2418
 650/856.8756 fax
 www.cityofpaloalto.org

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

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

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

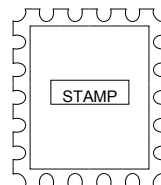
Radio NET & Swap Session every Monday evening, at 8:30pm, on the 145.230 –600 MHz repeater, PL 100Hz.

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,
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DR-135PT 2M mobile

- 50 Watt out • Alpha numeric display
- 100 mhz • Built-in TNC 7000 & 9500 Band
- 100 mhz • Built-in TNC 7000 & 9500 Band
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- 50W HF, 2M, 41M, 20W UHF
- 50W HF, 2M, 41M, 20W UHF
- 50W HF, 2M, 41M, 20W UHF
- 50W HF, 2M, 41M, 20W UHF

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