

W6OTX

W6ARA

PAARA NEWSLETTER

VOLUME 58, NUMBER 11, November 2008

K6OTA

K6YQT

PAARAgraphs



Celebrating 71 years as an *active* ham radio club—*Since 1937*
The Palo Alto Amateur Radio Association, Inc.



CALENDAR

- | | | |
|-----|-----|---|
| Nov | 7, | PAARA Meeting, 7:00
Menlo Park Recreation Center
700 Alma Street, Menlo Park |
| Nov | 12, | PAARA Board Meeting, 7:00
Red Cross Bld., 400 Mitchell Ln., Palo Alto |
| Dec | 5, | PAARA Meeting, 7:00
PAARA election |
| Dec | 10, | PAARA Board Meeting, 7:00 |



President's corner

~Kristen McIntyre, K6WX



November 2008

Welcome to PAARAgraphs for November and a brief respite from the presidential election. We are well into fall now, though you couldn't tell that from the weather. The high temperature for the day that I write this was 86 degrees. It's was a late Indian Summer day and probably some of the last of the warmer

weather. I will be leaving for Japan again in a couple of days, but this time I will be here for the November PAARA general meeting on the 7th (at least the probability is > 0.9).

I'm really looking forward to our next meeting. It feels as though I haven't been to a club meeting in a while and the truth is, of course, that I haven't been to the last two PAARA meetings. I appreciate your indulgence as work duties called me away from my club duties. I am sure that the PAARA Vice President, **Joel KD6W**, took good care of everything while I was away. I tried very hard both times to not have a trip that overlapped with our meetings, but that was not possible for these last two. I was able to speak to you again from Tokyo at the October meeting, however, there were some issues with Echolink and thus I had to use the telephone. I made the call using similar technology to that incorporated within Echolink: Voice Over Internet Protocol, or VOIP. I called **Peter, K6WEB**, using an application which runs on my iPhone and allows me to call the US via the internet for \$0.06/minute. Peter somehow got the audio from his iPhone to the amplified speakers and I was able to say hello. It was wonderful to be able to stay connected with all of you despite my absence.

As I write we are approaching the CQWW DX phone contest which will happen during the weekend of October 25th and 26th. CQWW is one of my favorite contests and I'm really sad that I will miss it. I heard some DX on 40m CW this morning at about 7 AM, probably getting the station shaken down for the contest. I couldn't quite copy the DX station, but the pileup was easy to copy. Had the station been a little louder I would have thrown the big switch on the amplifier and tuned up. I could feel my pulse rate rising just at the prospect. I'm hoping that I will be in the US for the CQWW CW contest in late No-

(Continued on page 120) Pres Corner

NEXT MEETING

November 7, 2008

**SPEAKER
AND
PROGRAM**

Steve Stearns - K6OIK

Antenna Modeling Software Part II

Steve will describe and show how to run **EZNEC** and the free program **4nec2**. He will also touch on some advanced modeling capabilities and indicate where the future of antenna modeling is headed. Download and install the free version onto a laptop and bring it with you to follow along!

Steve is currently Senior Staff Engineer at Northrop Grumman's Electromagnetic Systems Laboratory in San Jose, California, where he is leading the development of advanced signal processing algorithms for communication signal processing systems.

~Joel Wilhite KD6W



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.electronicfleamarket.com/>

LIVERMORE SWAP MEET, Now in Robertson Park, Livermore, every first Sunday of the month. 7 am to 11:30 am. Free admission for buyers. For further info, see: www.larkswap.com or contact Ian Parker, W6TCP at swapmeet@livermoreark.org

PAARA Palo Alto Amateur Radio Association
meets 1st Friday 7:30pm each month, Net 145.230 each Monday 8:30,
contact: <http://PAARA.org/> or Terry Finn, AA6T, 650-366-9111

FARS Foothills Amateur Radio Society
meets 4th Friday 7:30pm each month
contact: <http://www.fars.k6va.org/>

NCDXC Northern California DX Club
meets 2nd Friday 7:30pm each month,
repeater for member info 147.360, Thur 8:00PM
contact: <http://ncdxc.org/> or Mike Gavin W6WZ, (650) 851 8699

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, San Carlos City Hall.
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, 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

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: 441.35 (+5.0 88.5) ctcss
147.39 (+600) 151.4 ctcss 1286.20 (-12m) 100.0 ctcss
223.96 (+1.6) 156.7 ctcss
meets 3rd Wed 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
shensley@Novell.com

(please send changes to PAARAGraphs editor: k6uro@arrl.net)

PAARA Exemplary Service Award

Gerry Tucker, N6NV 2005

Rice Family 2006

Jim K6AK, Lisa KG6KQS, Kyle KG6MSK

Wally Porter, K6URO 2007

Vic Black, AB6SO 2008

LIFE MEMBERSHIP

Awarded by Action of the PAARA Board

Steve Stuntz, K6FS Dec 2007

Ron Panton, W6VG SK (12 07 2007)

Joe Gomes, KB6HDC SK

Leslie Vickery, KB6HDC SK

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 Joel Wilhite, KD6W 650 325 8239
joelwilhite1@yahoo.com.
SecretaryDavid Ungar, W6DH 650 255 2131
ungar@mac.com
TreasurerRon Chester, W6AZ 408-243 2221
w6az@arrl.net

Directors

Director ('08) Doug Teter, KG6LWE 650-367-6200
dteter@cwci.com
Director ('08)..... Rob Riley, KG6HVW (cell) 650 799-1607
kg6hvw@arrl.net
Director ('09) Gerry Tucker, N6NV 650-326 4908
n6nv@arrl.net
Director (09).....Byron Beck KG6UOB, 408-735-8604
kg6uob@arrl.net

See the calendar for Board meeting times. **Visitors are welcome.**

Appointed Positions

MembershipVic Black, AB6SO 650-366 0636
ab6so@smrn.com
Database.....Rick Melrose K6RDM 1-888-725-1895
k6rdm@arrl.net
ChaplainRev. Rick Line, KG6TMD 650 323 8544
kg6tmd@arrl.net
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 CoordinatorDoug Teter, KG6LWE 650-367-6200
dteter@cwci.com
Historian.....Christopher McIntyre, KG6SVI
Raffle Coordinator.....Jim Rice, K6AK 650-851-2274
Ticket MasterKyle Rice, KG6MSK
Field Day Coordinator.....Gerry Tucker, N6NV 650-326 4908
ASVARO Rep.....Rolf Klibo, N6NFI 650-856-2748
n6nfi@arrl.net
Webmaster.....Peter Sheerin K6WEB 415 298 7383
k6web@arrl.net
Technical Coordinator.....Joel Wilhite. KD6W..... 650-325-8239.
joel.wilhite@gmail.com
QSL ManagerRob Riley, KG6HVW (cell) 650 799-1607
kg6hvw@arrl.net
Speaker Coordinator Joel Wilhite, KD6W 650 325 8239
joel.wilhite@gmail.com

PAARAGraphs Staff

EditorWally Porter, K6URO 650-494 7038
k6uro@arrl.net
Guest Editorials.....Terry Finn, AA6T 650-366-9111
Photography: Bill Young K6VWO, kc6vwo@sbcglobal.net
Dick Kors KM6EP, Al Montoya WB6IMX, John Larribeau KR6MR,
, Mark Cohen K6EF, Andy Korsak KR6DD
Advertising.....Terry Finn, AA6T 650-366-9111
aa6t@arrl.net
NewsTerry Finn, AA6T 650-366-9111
Member Profiles Terry Finn, AA6T 650-366-9111
Technical Tips Vic Black, AB6SO 650-366 0636
ab6so@smrn.com

BOARD OF DIRECTORS MEETING.

~David Ungar W6DH, PAARA Secretary



Meeting was held at the Palo Alto Red Cross on 9/10/08 at 7:21 pm. Present were: **Kristen McIntyre K6WX** (Pres.), **Doug Teter KG6LWE** (Dir.), **Gerry Tucker N6NV** (Dir.), **Ron Chester W6AZ** (Treas.), **Rick Melrose K6RDM** (Membership), **Rob Riley KI6INR** (Dir.), **Joel Wilhite KD6W** (VP), **Byron Beck KG6UOB** (Dir.), **Peter Sheerin K6WEB** (Web) and **David Ungar W6DH** (Sec.).

The minutes from the August meeting were approved with a minor correction by acclamation.

Joel KD6W reported on upcoming speakers, and we kicked around some ideas that. **Ron W6AZ** reported on the flea market, and said that we made an overall profit of about \$1600. We expressed our appreciation to all the volunteers. Joel started a discussion about having a PAARA auction sometime during January or February.

Peter K6WEB reported on the web site. Some new photos are up, but some old info needs to be removed. We also discussed adding repeater fund information and directions to the board meetings. Peter will be getting our tax ID number from **Ron W6AZ** for Cafe Press. **Joel KD6W** suggested adding something to the web site about ARRL renewals. **Peter K6WEB** will also work on membership cards and will get database info from **Rick K6RDM**, who also gave a brief membership report.

Joel KD6W then spoke about the repeater, but I'll let the repeater committee report on details. Suffice it to say that **Joel KD6W** and others are making amazing progress on lining up the equipment!

We next discussed progress on finding an alternate storage location for the club trailer. **Gerry N6NV** has been replacing the wheels so it will no longer have the more dangerous split rim type. He has also been working on finding another location. **Ron W6AZ** will check on its registration.

After a brief discussion of the upcoming PAARAFest—**Joel KD6W** will get the word out—we continued on to new business. We discussed repeater funding. **Kristen K6WX** pointed out that the board will need a budget proposal and a funding proposal from the repeater committee. **Gerry N6NV** suggested putting the funding vote, when it occurs, before the whole membership instead of just the board. **Kristen K6WX** suggested that the repeater committee work out several scenarios and put forth 2 or 3 different funding proposals. **Joel KD6W** spoke of doing the repeater in multiple phases.

Gerry N6NV is thinking of working on Field Day shirts, and **Peter K6WEB** mentioned that our score is now listed by the ARRL.

Meeting adjourned at 8:23 pm.

Addendum: Meeting approved with corrections by the Board October 8, 2008.

My Radio's ON, But It's OFF!

Otherwise known as:monitoring for a little while.

~de Rich, W6APZ

Heard on a local repeater: "...monitoring for a little while." Who was "monitoring for a little while?" I never heard the call sign, yet my radio was ON. What was happening? We have all become used to our semiconductor rigs, turn them on, push-to-talk and we are "on the air"..... or are we?

We have become so accustomed to instantly being able to communicate that we tend to forget what's really happening. Yes, our HTs come on the instant we turn them on, and yes, they transmit the instant we press the PTT, but sometimes we are not being heard. The answer lies in the word "instant." When you are talking through a repeater, the repeater's receiver has to pick up your signal and then turn on the repeater transmitter. While this seems to happen in an "instant," there is a finite time delay between the time the RF hits the receiver front end and the transmitter RF that comes out the antenna. Granted, that amount of time is generally small, but *it is finite*.

There is an even bigger reason for hearing only part of a call, or as in the above case, missing the call sign entirely. In an effort to make HTs smaller and lighter weight, manufacturers have made the battery smaller. Normally, that would mean that the battery would not last as long, but knowing that the average HT spends most of its time on receive-standby, the manufacturers have developed a circuit that puts the radio "to sleep" for part of every second. This circuit "wakes up" the radio for a small fraction of each second to listen for calls. If a person simply states their call sign quickly, part of that call sign may be missed if the HT has just "gone to sleep." By the time the HT wakes up, the caller has finished, so no audio is heard.

I have an old ICOM 2AT that I use as a monitor receiver. It was designed before the implementation of the battery saver idea (putting HTs to sleep). There have been times when I've had both my Kenwood TH-F6 HT and the ICOM turned on. The audio out of the ICOM speaker announced a call sign while my Kenwood was asleep. If the station was speaking rapidly, I might hear the transmission only on the ICOM. At other times, I've heard the whole transmission on the ICOM, but heard only the last part of the transmission coming out of the Kenwood speaker.

What's the solution? There are several ways to solve this problem. On some radios the "sleep" time is adjustable. One *could* make that time shorter, but usable battery time would decrease. If your radio came with a particularly long sleep time, you may wish to make this adjustment to a more optimum compromise between usable battery time and missing a call. Consult your radio's User's Manual to find out how to adjust the sleep time.

On the transmit side, one could press the PTT button and wait a second before stating your call sign. This will help. Another is to say your call sign slowly, giving time for those two delays to enable an HT to hear at least part of your call sign. This is a much better solution to this problem. I usually say: "This is W 6 A P Z" or "This is W 6 Alpha Papa Zulu listening". The spaces in my call sign above indicate that I say my call slowly.

Use one or more of these approaches and I'll bet you'll get more responses next time you sign on to a repeater.



The PAARA Repeater Project - Part 1

by Joel Wilhite KD6W

A simple description of a repeater is a system used to receive a specific signal from a remote transmitter and retransmit the received information on another frequency with more power. Now consider the fact that there are 100s of repeaters filling frequency pairs from Santa Cruz to Sacramento. Most of them are sadly under used, unused or worse, closed to just a few. Why would we want another repeater? Many of these machines provide spectacular coverage while others are linked together, some now using IRLP. In any case, some of the new systems reach beyond the state and now beyond our political borders. But in our area alone, the two meter and seventy centimeter bands are choked full of machines with very rare new coordination's being granted, so no NEW machines. The situation in our area is made worse with PAVE PAWS darkening the best and most useful machines on 440 MHz. Considering the lack of space on 2 meters and the 70cm band not coordinating any new machines, which band would we put one on?

I can think of several reasons for making our own machine but the one most obvious to me is having a machine we can call our own. This is not to say the N6NFI machine isn't a worthy and trusty servant for our needs. It will likely continue to be a valuable resource to PAARA, however, N6NFI is not our machine (1). It's also worth noting how popular it is too. And though N6NFI isn't linked, N6NFI is not in need for range of coverage either. But wouldn't it be nice to provide a companion resource for having fun and talking to people around the state or around the world? The most important thing to remember is the service aspect of having a resource available for assisting others in a time of need. No one will argue the value for having a state of the art system for helping our communities during times of great need.

Many of the machines that sprung up around us were installed during the first heyday of commercial two way commercial service upgrades back in the late 60s, early 70s. Police and fire wanted more and reliable and in some cases, secure communications. Machines popped up like weeds and the portable radio market soon bloomed afterward. Since then, the state of the art has moved on considerably with the advent of digital technology. The early commercial machines were the first workhorses and continue to thrive as they were built to survive, but the available parts to repair them become scarcer. Having the opportunity to travel as I do, I'm intrigued by the different machine technology around the United States and abroad. With satellite QSOs using a handheld becoming commonplace, the prospect of operating a new innovative system design is tantalizing.

If for nothing more than providing an outlet for our creativity while practicing our craft in our great hobby a new machine using the latest technology would be warmly welcomed to the bay area. After all, we are living in Silicon Valley. The only remaining question to be answered is which band (or bands) to use and what technology to deploy?

I envision system requirements to include a design which starts out modest to get started to provide control infrastructure and provide hooks to allow other layers to be added later to either improve reliability, flexibility or to extend the capabilities. The design should have simple, easy to repair elements in the critical paths and spare parts for everything else.

The 33cm Band

A quick scan of all the band coordinations on the www.narcc.org (2) website shows a green field of openings in the 33 and 23cm bands. The 33cm band is not without its challenges and likely to be the only reason why most hams aren't there now, we hams share it with baby monitors, cordless phones and wireless microphones (3). The ISM band or part 18 devices (4) are shared amongst many numerous operators of devices including the military. But since ISM band devices tend to be mostly transmitters (5), the main criteria for the ham community is to tolerate interference from them and not cause harmful interference to them. With careful attention to detail, I believe we can coexist.

You might ask why we don't consider using the 23cm (1240-1300 MHz) band. It's a simple matter of economics. There are no commercial equivalent radios that can operate in the 23cm band since it is ham exclusive, and those ham radios that do operate in 1.2 GHz band are very few and very expensive. The only other option is to make a transverter to convert the output from an existing rig. Sadly the prices for those kits will set you back more than a store bought 23cm rig and then they are limited to the performance restrictions of the IF rig as well. The bottom line, the 23cm band has higher costs associated with it to launch a repeater when compared with the 33cm band.

So where do you get 33cm band equipment and how do you support it? You may have noticed the lack of 33cm rigs down at the candy store, ever wonder why? A quick scan on EBay™ using the search string "Motorola 900 MHz" (6) found nearly a dozen radios ranging in prices from \$30 to \$130 with various options for chargers and extra batteries. At the last De Anza flea market I saw a few handhelds on tables as well. It seems as though other hams are not active on 900 as much as they could be in other parts of the US. Better for us I suppose.

The reason these radios are seemingly everywhere is they were dropped from commercial service literally overnight when the new cell phone service showed up in the early 90's. The low side of their band split disappeared when cell phone carriers and NexTel™ services swallowed up (7) one half of the band the 2 way commercial radios were designed for. The 900 MHz radios original design had a wide range split that allowed them to operate above and below the ISM band, but not receive and transmit on one side alone. Hams familiar with the high band Motorola radios discovered they could be reprogrammed into ham radio band. Reprogramming them is a little tricky but once the combination of software and hardware is put together, the radios can be repro-

(Continued on page 119) PAARA Repeater Project

(Continued from page 118) PAARA Repeater Project

grammed to operate inside the ham band plan using the 25 MHz split.

Since the radios were designed for commercial service they have very few options like the rigs we see in the store. But as radios go, they are workhorses as was required by fire, police, taxi and tow truck services. The huge benefit of these radios is their ruggedness and ability to operate at the narrower 15 kHz spacing making them highly desirable. Otherwise, they operate exactly like any other radio you have ever used. You turn it on, select a frequency (preprogrammed of course) and push-to-talk, the radio couldn't be simpler to use.

New Old Radios?

When compared to their original source, radios from the commercial side of the 2 way communication industry are new to us. For example, our new machine is an old Motorola MSF 5000 that was pulled out of service from the UNOCAL refinery in the East Bay. I didn't buy it new but in the 90's, this was a state of the art trunking 75 watt repeater.

Trunking is a system technique used to maximize the users across fewer frequencies instead of having unique channel assignments for each group. For more information about trunking radio systems, these sites have a fairly comprehensive overview (8, 9). The trunking aspect of this repeater has no value in our design but the other parts of the radio have great value.

These radios were designed to operate in fairly hostile environments. These systems have unique features and specifications that allow it to operate in harsh RF environments. Specific to this repeater are the front end preselector filters built into the design.

Unlike the older crystal bound radios of years past that didn't have a concern for crowding on the bands, the new synthesized radio designs of more recent vintage are optimized specifically to operate in as little as 12.5 kHz channel spacing. This technique allows more channel utilization in a band plan. You will notice in the bay area, many of the repeater channels spacing in the 2m and 70cm bands have not been moved to 12.5 kHz spacing. Mostly technical reasons are cited for not moving the existing machines to open more room for new machines, while others claim it would cause a financial burden.

You can instantly recognize any machine set up on the narrow spacing if the frequency allocation has 4 digits after the decimal point like 146.5375. Any of the new radios you own likely have IF filters good enough to allow 12.5 kHz spacing operation. Another clue is if your radio allows the step size control to step at 2.5 or 12.5 step sizes as a choice. Older equipment can work a 12.5 stepped frequency as the 2.5 kHz step offset is close enough to work through a wide IF. You know how you can tell when you are 5 kHz off frequency, but being 2.5 kHz is barely noticeable. The older radios have problems when the machines on either side of the frequency you are running are transmitting as their IF can't tolerate the narrow band plan. The Motorola radios were designed to operate in 12.5 kHz spacing to support digital trunking which packed them in together very tightly and moves them around according to utilization.

The Next Big Step

In the chart below, the Motorola radio model numbers indicated in the table are the popular models and are prevalent online and at the flea markets. (10) There are other 900 MHz radios around but we don't know as much about them and or how to reprogram them.

M11WGD4CB1AN	GTX	10 ch conventional	mobile	Ham=yes	900 MHz
H11WCD4CB1AN	GTX	10 ch conventional	handheld	Ham=yes	900 MHz

If you see a radio for a price you can afford, then you want to examine it for heavy wear and tear. If the online picture is poor, ask the seller to check for scratches in the display. The risk is pretty low but it is always reassuring to see the radio run and be able to verify the model number. Even better if the radio turns on and finishes self test without errors. If it doesn't power up, I wouldn't be too surprised as the battery maintenance was likely not maintained. Fortunately, replacement handheld batteries are available online at very reasonable prices. Don't worry about the programming in the radio, it will all have to be changed anyway. Good luck and good hunting.

Summary

The Motorola radios are easy to get and fairly inexpensive, they operate in conventional mode like any other amateur radio you have ever operated, and they are built very well. Documentation for these radios is online and the programming tools are in our hands. I have programmed three radios so far and now have the ability to clone radios. At the last board meeting we discussed the possibility of purchasing radios in bulk and offer them to the club preprogrammed and bundled with a fresh battery and desk charge stand. Either way, if we buy them or you find a better deal, PAARA will soon have the ability to offer up the first repeater in the clubs 73 year history, EVER. It's up to you if you wish to join the fun of operating and discovering a new band.

But wait, we aren't stopping at building one 900 MHz machine as we have a complete D-STAR system to put up too but we'll

(Continued on page 120) PAARA Repeater Project

(Continued from page 119) PAARA Repeater Project

provide more information on that later. Until then, we have a fair amount of work to complete before our first machine is on the air. We have achieved critical mass and now only require the time and effort it takes to get the machine installed and signed off for coordination. There will be a few items to discuss during general business that require funding. To get our budget formalized, we will have a few items for discussion to bring up as a topic of new business at the next meeting. I hope to see you there. Until the next time, 73.

References

http://www.fars.k6ya.org/repeaters/n6nfi_r
<http://www.narcc.org/> Northern Amateur Relay Council of California, Inc.
<http://www.scrba.org/Announcements/1990/33cmBandPlan.htm>
<http://www.tscmplus.com/FCC47CFRpart18.pdf>
<http://www.qsl.net/kb9mwr/projects/wireless/ism.html>
http://shop.ebay.com/?_from=R40&_trksid=m38.11313&_nkw=Motorola+900+MHz&_sacat=See-All-Categories#item180287801124
<http://www.criterioncellular.com/antennas/nextel.html>
<http://www.police-scanner.info/scanning/trunked-radio-systems.htm>
<http://www.radioreference.com/>
<http://www.batlabs.com/gtx.html#model>

(Continued from page 115) Pres Corner

member, the weekend after Thanksgiving. If you have a station and are licensed for HF, I encourage you to get out there and have some fun in the 'TEST'. You might even be able to score some rare DX.

Speaking of HF, propagation is finally beginning to look up a bit. We have seen a significant increase in solar activity despite continued strings of zero sunspot numbers broken by an occasional small cluster. A number of small sunspot groups have appeared recently. These groups have only made a relatively brief appearance and many of them have been at high latitudes. At times there are only magnetic field concentrations on the surface that do not make it to the level of sunspots, but this is still significant. The good news is that most, if not all, recent activity has had a magnetic polarization that is characteristic of the new solar cycle, cycle 24. In addition, the geomagnetic field has been relatively quiet and this, along with the slightly increased UV flux, has enabled propagation to work a bit better

than before. I have heard reports of some nice openings into South America and the Pacific on 17 meters. As time goes by we should see an increase in solar and geomagnetic activity. It will probably still be a year or two before 10 meters will be significantly active, but all signs point to us finally coming out of the bottom of solar cycle 23.

I quickly want to remind everyone that PAARA officer elections are getting closer. Nominations close at the end of the November PAARA meeting so time is drawing short to be involved in the PAARA leadership team. I will make an announcement at the general meeting about the nominations and we will prepare for our own election.

Thanks for reading, if you got this far, and I hope to see all of you for our November meeting. I will be glad to be back to finish out 2008 and look forward to 2009.

CUL ES 73 DE K6WX.



photo K6WX

PAARA “The Friendliest Club Around”

Palo Alto Amateur Radio Association, Inc.

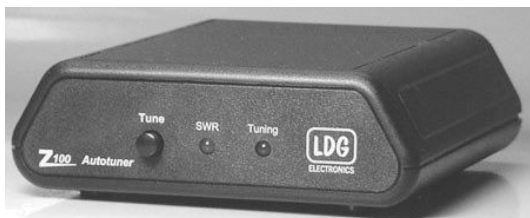
www.paara.org

Date and Time: Friday, November 7th at 7 p.m.

Menlo Park Rec. Center, 700 Alma St., Menlo Park, CA.

Welcome Members and Visitors / Raffle Prizes:

FIRST PRIZE: LDG Z-100 Antenna Tuner



- Tunes From 0.1 to 125 Watts
- Latching Relays
- Current Draw Is Nearly 0 When Tuner Is Not Tuning
- 200 Fast Memories / Decreases Tuning Time Up To 95%
- Optional Interfaces Available For Popular Radios
- Operating Range Is 1.8 To 54MHz

SECOND PRIZE: Yaesu VX-150

5 Watt 144 MHz HT with Charger and Ni-MH Battery

- 1400mAh Ni-MH Battery Pack
- VX-150 or Battery Pack Drops Into Charger
- Exceptional Receiver Performance
- Clear Transmit Audio
- Illuminated Keypad
- Die-Cast Aluminum Housing



THIRD PRIZE: Heil “The Traveler” Headset

Heil ‘iC’ Boom Mic Element
Pendant Switch / PTT & Up/Down Frequency Control

FOURTH PRIZE: CQ Amateur Radio Calendar / 15 Month / 2009-2010

FIFTH PRIZE: Sterling Deluxe Wire Stripper

SIXTH PRIZE: ARRL Minilog

SEVENTH PRIZE: Icom Grid Square Map & Icom Key Chain Pig

Since Feb. 03, 131 Radios, including an Elecraft K3, 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 Bob, Howard, Rick, Mark, and everyone at HRO for their continued SUPPORT!

~K6AK Jim

Canadian Amateur Radio Operators Provide Communications as Hurricane Kyle Hits the Maritimes.

Canadian Amateur Radio operators provided information to the U.S. National Hurricane Center (NHC) who provided the Canadian Hurricane Centre (CHC) in Dartmouth, Nova Scotia, on Hurricane Kyle as Kyle made landfall in New Brunswick/Nova Scotia on Sunday. Most of the contacts were made through the NHC VoIP Hurricane Net network which uses interlinked IRLP and Echolink nodes connected to WX4NHC, the official Amateur Radio station of the NHC. In addition, there were Amateur radio stations from Australia and Germany assisting in net activities.

ARRL Emergency Preparedness and Response Manager Dennis Dura, K2DCD who was also Net Control for the VoIP Hurricane Net praised Canadian Amateurs for the information provided to the NHC.

Much of this operation was coordinated to RAC via the RAC ARES e-mail reflector on Saturday through Dennis, K2DCD and direct contact with VP-FS Bob Cooke, VE3BDB on Sunday.

~Terry AA6T

**Making major lifestyle changes -
downsizing ham station.**

FOR SALE:

**KENWOOD TS-2000 with digital recorder
 KENWOOD TS-2000 30amp power supply
 TIGERTRONICS *Signalink* USB Multimode
 digital converter**

**GAP TITAN ANTENNA complete, unassembled
 RADIOSHACK 2-m handheld**

All in excellent condition.

Contact Steve by email or landline:- k6fs@arrl.net or
 (650) 322-4952

WEB's

Recommended by PAARA Members
(Do you have one or more?)

check this out for a great list of free, downloadable old electronics books! www.pmillett.com/ ~Gerry Tucker N6NV

<http://www.n7yg.com/propnetpsk/index.html>

QST March page 95 and the above URL discusses an internet based beacon system that we'll all enjoy!

~Jay WA6SBO/VE7 wa6sbo@arrl.net

P.S. If you are using this for propagation data, you should also consider:

<http://hfink.com/>

You can run the software in receive-only mode and get the propagation info or join the group. It uses 160 through 2 meters and you really need an antenna that is resonant on all the bands you use/monitor.

~Orval Chadsey N6OZI San Francisco, CA

CQ Ham friends de WA6SBO

jMelvin <jMelvin@infoPATH.com>

AddWednesday, April 23, 2008 4:06:18 AM

navbits_finallink_ltr.gif (1KB)

Haven't had opportunity to use this but it seems inevitable, i.e.,

digital sound card phone.

Let me know of any results. - 73, Jay

from: QRZ.COM

[QRZ Forums](#) > [QRZ Newsroom](#) > [Ham Radio News](#)

Congratulations: October 3rd 2008 PAARA Raffle Prize Winners

1st Prize: Joel Wilhite / KD6W / Yaesu VX-150 / 5W / 144 MHZ HT

2nd Prize: Dave Crocker / W6VYC / Heil "The Traveler" Headset

3rd Prize: Mark Meltzer / AF6IM / Arrow Yagi / 3 Element VHF / 7 Element UHF

4th Prize: John Larribeau / KR6MR / Deltran Battery Tender

5th Prize: Bernard Van Haecke / KI6TSF / 2008 ARRL Handbook with Searchable CD

6th Prize Dave Platt / AE6EO / Pak-Lite LED Flashlight

7th Prize: Gary Barnes / KI6HIG / World Radio 1 Year Subscription

8th Prize: Doug Teter / KG6LWE / Sterling Deluxe Wire Stripper

PAARA Members and Visitors: THANK YOU FOR YOUR SUPPORT of the exciting monthly raffles!


Since Feb. 03, **131 Radios**, including an Elecraft K3, a Yaesu FT-847, an Icom 706 MK IIG, a Yaesu FT-897D, and TWO Elecraft KX1's have gone to Fellow Hams, THANKS TO YOU!

PAARA had a remarkable year in 2007! If you aren't a member, please join PAARA now, and experience fun 2008 events with the "friendliest club around."

~ K6AK Jim




www.CustomAerialPhotos.com



**Rick and Connie Line
 Photography**

(650) 996-2166
 A Picture Worth
 MORE
 Than 1000 Words



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

Name & Call Badges
 Now available with your QTH



To order contact our Badge Coordinator
Doug Teter, KG6LWE
 At any meeting or kg6lwe@arrl.net

PAARA Radio NET
 and Swap Session
 every Monday evening
 8:30pm local time
 on the
145.230 –600 MHz repeater
 PL tone off

control operators:

Week	Operator
1 st Mon.	Pink Foster, KG6ILA
2 nd Mon.	Peter Sheerin, K6WEB
3 rd Mon.	Doug Teter, KG6LWE
4 th Mon.	Terry Ridgeway, N6ZAG
5 th Mon.	Doña Kerns, KI6DAR



Directions to PAARA meeting:
<http://paara.org/meetings/>

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 Menlo Park Rec Center, 700 Alma Street, Menlo Park, CA.


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

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.

Join us for pre-meeting eyeball

QSO
Nov 7th
gab & gobble



Food will be served at 6:00 sharp, so guests will be on time for the PAARA meeting. Those arriving late will be responsible for their own food order.

5:30 pm—at Su Hong Restaurant
1039 El Camino Real
Menlo Park

across from Kepler's Book Store
on El Camino Real
Walking distance from Caltrain!

**PAARA
 Radio
 NET**

**every
 Monday
 evening
 at 8:30
 P.M. local
 time
 on the
 145.230
 –600 MHz
 repeater,
 PL tone
 off**



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
 Jack Of All Trades, Master Of Some.
 Freelance Photographer
Bill Young
 PO Box 471
 Mountain View, CA
 94042
 408-245-1161
 jdsinger@sbcglobal.net

View Photos.
http://www.slide.com/r/PZHjUev0D-CcHE_Gt6m6rdKbPtUyz6m?previous_view=next&reloaded_url&view=original

**MADONNA'S
 BAIL BONDS**

MasterCard VISA
 Ayudamos a la Comunidad Hispana

REDWOOD CITY — **650-366-9111**
 SAN FRANCISCO — **415-495-2245**
 SAN JOSE — **408-266-2245**

TERRY FINN CA Insurance License # 1A38965, AA6T
 234 Marshall Street, UPSTAIRS #3 Redwood City, CA 94063-1550



PowerFlare® safety lights:
 Ultra-rugged 360 degree LED beacon
 for your emergency kit, car, home ...
Order on eBay or call 650-322-2476
 (search for "PowerFlare")

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

Vladimir Vladimirovich
 SHKURKIN

Editing and Translation Services
 English-Russian-English

shkurkin@ix.netcom.com

PAARAgaphs E-mail address: k6uro@arrl.net
 Submit material for PAARAgaphs by the 15th

Text: WORD, RTF, or ASCII
 Photos: JPEG or TIFF raster images

Missing PAARAgaphs, too many copies, wrong name or
 Call on label? Contact Database Manager:
 Rick Melrose K6RDM, 1-888-725-1895, k6rdm@arrl.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 only.

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

These fees may be reduced or waived in exchange for a valuable consideration that is given to the Association or its general membership. Such consideration must be in addition to any existing arrangements with the association. The 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 Terry Finn, AA6T

