

PAARAgraphs



Celebrating 68 years as an *active* ham radio club—*Since 1937*
The Palo Alto Amateur Radio Association, Inc.



CALENDAR



June..... 3 **PAARA Meeting**
7:30–9:30
Menlo Park Rec Center
700 Alma Street
Menlo Park, CA 94025

June..... 8 **PAARA Board Meeting**
7:30pm
Red Cross Bld., 400 Mitchell Lane Palo Alto
(due to Parking Lot problems location may change, check net before Bd. meeting)

July..... 8 **PAARA Meeting, 7:30pm**



NEXT MEETING

June 3, 2005

Field Day Preview & Training

This year's Field Day will be awesome, with more HF stations, bigger antennas, and more demonstrations for visitors and the media.

We will be operating in the 4A category—four HF stations, one Get On The Air station, a VHF/UHF station, satellite, and perhaps even HSMM—something for everyone.

So come to get a preview, and find out how you can help make this the club's best Field Day ever.

Gerry, N6NV will introduce you to our grand plan, our station captains will tell you about their equipment, and then we'll show you how to operate our new networked logging system.

~Peter Sheerin, K6WEB



President's Corner.

June has always been a big & exciting month for PAARA because it is Field Day month. Preparations are well in

hand for yet another outstanding event during the last weekend of this month at the Bayfront Park in the City of Menlo Park. A review of the PAARAsite at: www.paara.org will acquaint the reader with many of the activities planned and communications operational modes that will be available. Please note that station operator positions are still available for the actual contest portion of the event, simply by asking **Ron Chester, W6AZ**. Those members who want to help in other ways are encouraged to contact **Gerry Tucker, N6NV**, who is the overall commander of the PAARA Field Day event. I know that **Kathy Erken** is still seeking assistance with the food & beverage preparation and service for Saturday evening. She can be reached at: 650-222-6500. We should be having a mini field day equipment testing event in conjunction with the AmTech Day just a few weeks before the actual contest.

We are going to miss **Steve Brune, KG6OUB** and his son **Ian, K6IAN**, our assistant ticket master, as they leave the area and move to Boise, Idaho. They have been very active members of PAARA over the years. We gave them a warm farewell at the last PAARA meeting with a huge cake provided by **Jim, Lisa & Kyle Rice**.

Please keep your call sign & address information up dated on the PAARA master membership list by simply sending an e-mail to Lisa Rice. We are especially interested in knowing your ARRL membership expire date.

Thank you. I will look forward to seeing you at the Field Day event.

~73: Terry Finn. AA6T (formerly AF6TF)

Miscellaneous Info

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/>

LARK Swap meet
 LosPositas College, Livermore, 1st Sunday each month.
 Contact: Cliff Kibbe (209) 835 6715 or Eliot Ross (925) 606 7710
<http://www.livermoreark.org/swap/swap.html>

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://nedxc.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 Phil Stripling, KG6ILU, 650-342-6648, <http://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

DISASTER SERVICES

American Red Cross, PALO ALTO AREA CHAPTER
 400 Mitchell Lane
 Meets 3rd Wed. each month 7:30PM
 HF, packet, BBS, ATV, OSCAR Gateway, NASA satellite.
 contact: <http://paarc.org/> or Mac Millian 650-688-0423. MACM@paarc.org

American Red Cross, SANTA CLARA VALLEY CHAPTER
 contact: <http://santacalaravalley.redcross.org/> or Scott Hensley KB6UOO, (408) 967 7924
fhensley@Novell.com

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

PAARAgaphs E-mail address: k6uro@arrl.net
 Submit material for PAARAgaphs by the 15th
 Text: WORD, MS Publisher, RTF, or ASCII
 Photos: JPEG, PNG, or TIFF raster images
 Diagrams and ads: AI, EMF, or EPS vector files
 PAARA Web/WAP site: www.paara.org

Palo Alto Amateur Radio Association, Inc.

PO Box 911 Menlo Park, CA 94026

Officers

President Terry Finn, AA6T 650-366-9111
aa6t@arrl.net
 Vice President Peter Sheerin, K6WEB 415-298-7383
k6web@arrl.net
 Secretary Adrianus Schrauwen, W6AJS 650-494-6256
w6ajs@arrl.net
 Treasurer Ron Chester, W6AZ 408-243 2221
w6az@arrl.net

Directors

Past President Andreas Junge, N6NU 650-233-0843
n6nu@arrl.net
 Director ('05) Gerry Tucker, N6NV 650-326 4908
n6nv@arrl.net
 Director ('05) Rolf Klibo, N6NFI 650-856-2748
n6nfi@arrl.net
 Director ('05) Bob Korte, KD6KYT 650-595 1842
kd6kyt@arrl.net
 Director ('06) Kristen McIntyre, K6WX
k6wx@arrl.net

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

Appointed Positions

Membership Vic Black, AB6SO 650-366 0636
ab6so@smrn.com
 Membership Lisa Rice, KG6KQS 650-851-2274
lisa.rice@sbcglobal.net
 Database Lisa Rice, KG6KQS 650-851-2274
lisa.rice@sbcglobal.net
 Chaplin Rev. Rick Line, KG6TMD 650 323 8544
kg6tmd@arrl.net
 Station Trustee Gerry Tucker, N6NV
 Property Manager Gerry Tucker, N6NV
 Badge Coordinator Doug Teter, KG6LWE 650-367-6200
dteter@wewi.com
 Sign Maker Steve Brune, KG6OUB 650-740-4367
stevebrune@sbcglobal.net
 Raffle Coordinator Jim Rice, K6AK 650-851-2274
 Ticket Master Kyle Rice, KG6MSK
 Ticket Master Assistant Ian Brune, K6IAN
 Field Day Coordinator Gerry Tucker, N6NV
 ASVARO Rep Howard Takaoka, KG6GRO 650-856-9761
htakaoka@excite.com
 Webmaster Peter Sheerin, K6WEB

PAARAgaphs Staff

Editor Wally Porter, K6URO 650-494 7038
k6uro@arrl.net
 Photography Steve Brune, KG6OUB 650-740-4367
stevebrune@sbcglobal.net
 Additional pictures
 Dick Kors, KM6EP, John Larribeau, KR6MR, Wally Porter, K6URO
 Advertising Terry Finn, AA6T 650-366-9111
aa6t@arrl.net
 News Terry Finn, AA6T 650-366-9111
 Member Profiles Terry Finn, AA6T 650-366-9111
terry@incognitoservices.com
 Technical Tips Vic Black, AB6SO 650-366 0636
ab6so@smrn.com
 Good Old Stuff Andy Korsak, KR6DD
kr6dd@arrl.net
 The Satellite Beacon Emily Clarke, W0EEC
w0eec@arrl.net



PAARA HONORS

DAVID UNGAR., W6DH

by Terry Finn AF6TF

PAARA HONORS A DISTINGUISHED ENGINEER.

PAARA's own **David Michael Ungar, W6DH**, a distinguished engineer at Sun Microsystems Laboratories in Mountain View was born in Brooklyn, New York, on March 19, 1954 at the Maimonades Hospital. His happy and proud parents were, and still are, Alan John Ungar and Ramona Audrey Ungar who now live in Rockville, Maryland. The senior Ungar had taught high school mathematics in the New York area before becoming a computer analyst for IBM in their Federal Systems Group. David's mom had been an elementary school teacher and reading specialist who earned a Ph.D. later in her life. Ramona had met Alan at a birthday party for a girlfriend that was held at Alan's apartment. They were both twenty years old when they were married in 1950, during the Korean War. David's sister Elizabeth was born in 1960 and now lives in Lexington, Kentucky where she works as an assistant Attorney General for the State of Kentucky.

As a child, David was rather curious about things and enjoyed dismantling items, especially anything electronic. At age six, David's father built a stereo radio amplifier and record player. This home brew project was rather exciting for David and he played with it frequently as it was his first exposure to electronics. It was at this time that David considered becoming an electrical engineer. For a real treat, David's father would take him to Lafayette Electronics near Paramus, New Jersey, to purchase things. Over the years David learned math from his father and reading skills from his mother. During high school he served with the Audio Video Club, the Debate Club and was captain of the math team during his senior year. In fact, David was a TV star during this period of time as the Academic Team from various high schools would debate on a televised program handled in a game show format and shown on local TV.

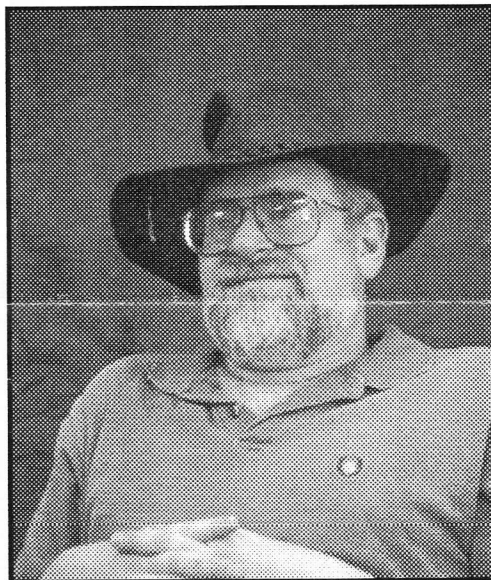
APL program was a new computer language that David mastered in high school. He then learned Fortran, so he was proficient in the use of computers. He also used assembly language to program an IBM 360 and used an IBM 1130 to conduct tests of the students for physics and other academic exams. He was so experienced with the

use of these new languages and computers that he actually played practical jokes on others by programming specific words into the systems to confuse or alarm some of the other users. David graduated from Albert Einstein High School in Kensington, Maryland in 1972. David mentioned that Albert Einstein was someone who he admired from afar for his genius. Through much of his high school experience, David drove a 1965 V/W Beetle, however in 1972, a wealthy relative purchased a 1971 Audi 100 LS for him as a gift. During the 1971 high school year, David took a test known as JETS for possible engineering aptitude and he placed first, at the top of the list, for the whole country. David admits that during this time of his life, "he was a real nerd, or geek with no social skills". As a result of his efforts he was awarded two academic scholarships. One was the IBM National Merit Scholarship and the other was a full four year engineering scholarship at Washington University in St. Louis, Missouri, where he registered for classes when

he was eighteen years of age. Although David had applied at four schools, including MIT, and was accepted by all of them, he chose Washington University. His summer job that year was working in the Government Printing Office processing orders.

This was his first time away from home, living in the campus dormitories. As a result he and several other engineering students became rather friendly and formed a group that they referred to as "El Destructos". This loosely administered group of self proclaimed nerds were all amateur locksmiths and ended up fabricating their own working set of master keys which allowed them access to everything on campus. They especially enjoyed riding on top of the elevators, through twelve stories, and making

sounds for the unsuspecting elevator passengers. They would kill fly's with de-greaser that they obtained, etc. One must think of the movie, "Revenge of the Nerds", to fully appreciate what this group was capable of doing. David maintained an analog computer on campus and worked as a movie projectionist. He also supervised the electronics training lab for the new students and made sure they knew where the fire extinguishers were located at all times. In 1975 David became the first Unix operating system administrator and user in the State of Missouri. In fact, for his bachelors thesis, he designed and built a video ping pong game from a micro processor design. He graduated in 1976 with a BSEE and a BSAMCS (applied math & computer science). The Washington University extended his scholarship for another year so he could stay and work on his Masters Degree in computer science and electrical engineering. He earned that new degree in 1977.



(Continued on page 60) DAVID UNGAR., W6DH

(Continued from page 59) DAVID UNGAR., W6DH

David married his first wife, Jane, in 1975 while attending University. They were divorced in 1978 and she took all of his assets including his cherished Audi and the pet kitten. From 1977 through 1980, David worked at Bell Labs in Holmdel, New Jersey, in Unix operating system development. He was now driving a 1976 V/W Rabbit, yellow in color.

In 1980, David was accepted at U.C. Berkeley for work toward a Ph.D. in computer science. He worked extensively in high level language computer architecture and wrote his thesis entitled: "The design and evaluation of small talk on a RISC". He was responsible for the first 32 bit small talk system. He graduated in 1985 and was immediately hired by Stanford University as an assistant professor in the computer architecture and programming languages department. He taught at this outstanding, world renowned University until 1991 when he was lured away by Sun Microsystems as a senior staff engineer. It should be noted that David was known as a professor of electrical engineering at Stanford. He was also able to take on special consulting projects which he did for such well known organizations such as: Xerox PARC;

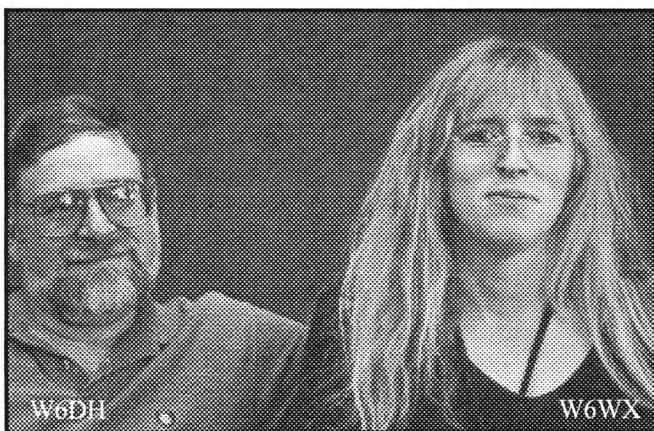
ParcPlace Systems; Apple Computer, advanced technology group, etc. By the way, just for coming over to Sun, David was given a signing bonus which allowed him to purchase his Porsche 914. He now drives a Porsche Boxter, S model. During David's tenure at Stanford, he was awarded the Presidential Young Investigator award for promising young professors to fund their research to the tune of fifty thousand dollars annually for five years. This helped him develop a program algorithm known as a garbage collector which is used in JAVA today. (We suspect it also helped him with his series of V/W rabbits that he personally maintained for transportation.) David invented the techniques used to run JAVA efficiently. In fact, every time you use JAVA on a Sun system or a Mac, you can think of David as it was he who actually designed it and made it work. David's personal belief is that he should design and make things that are easier for the human to work with, not more difficult and time consuming. David married again in 1984. His son Leo was born in 1986 and currently attends Princeton University in Princeton, New Jersey. He is very proud of his son. In 1993, David and his wife adopted a small child, however in 1994 they were sued by the real father who wanted custody of the child returned to him. It was a nightmare of emotions and legal battles. They lost and the child had to be returned to this man who had given up the child initially. David was divorced again in 2001. In 2004, David was presented with the coveted award for the most important and influential paper ever presented at the annual conference of the Association for Computer Machinery. This was something that David had developed and prepared while working with the graduate students he was supervising at Stanford. It was provided to the User Interface Science & Technology Conference. David's official designation at Sun is now, "Distinguished Engineer". This title is only bestowed on the

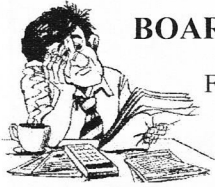
most deserving candidates and only by their engineering peers. David is currently working on a dynamic metacircular object-oriented virtual machine architecture at Sun. The name of this secret project is KLEIN. Just for the readers information, David has presented over forty papers and talks on object oriented virtual machine technology and has fifteen patents granted for the same thing and other user interface technologies.

In 2003 David walked away from a rather serious car crash on Highway 85. His Mercedes Benz SLK 230 was a total loss. It was at that time that he considered going to the Porsche vehicle, which he continues to drive today. He interviewed another PAARA member, Kristen MacIntyre, K6WX, when she applied at Sun and subsequently recommended her for the available job as senior staff engineer. Kristen had a hobby of amateur radio and thus David began his new deep rooted interest in ham radio. He earned his technician license in June 03 and was issued call sign KG6RWP. He took the test after studying on line just so he could surprise Kristen when she was the net control operator on the 9am talk net. He up graded to general and extra class by taking the written exams and subsequently took the PAARA code class that was taught by PAARA members: Stan Towle, WA6ZGI; Mike Gavin, W6WZ and Terry Finn, AA6T. David is quoted as saying: "I would still be a technician if it wasn't for the code class and the instructors". Thank you David, we needed that. His new call sign is W6DH. David currently operates a Kenwood TS-480 SAT with a Buddipole, multi band portable antenna and a Kenwood D700 for APRS and an Icom ICT 90a with a J-pole antenna. His Elmer is Kristen, W6WX. David is an ARRL member and an active member of PAARA. He enjoys jazz and big band music and has been a solo jazz singer. He plays bridge (a card game) with a video link over the internet with friends and his parents. (We hope this isn't the same computerized bridge bidding system that he designed as a teenager, because it didn't work well at all). David is quoted as saying: "I love the people in the ham radio world. They are the most generous and reliable folks I have ever known".

Please say hello to David, W6DH, on the air, at the meetings and especially at Field Day. PAARA is happy and proud that you are one of our members.

~Terry Finn. AA6T. formerly AF6TF.





BOARD OF DIRECTORS MEETING.

February 9, 2005

The PAARA Board of Directors meeting was held at the Palo Alto Red Cross bldg despite the parking inconvenience because of construction work at next door transportation Center and started at 19:30 hours.

In attendance were:

President: **Terry Finn AA6T**

Vice President: **Peter Sheerin K6WEB**

Secretary: **Adrianus Schrauwen W6AJS**

Treasurer: **Ron Chester W6AZ**

Boardmembers: **Gerry Tucker N6NV, Rolf Klibo N6NFI and Kristen McIntyre K6WX**

PAARAGraphs Editor: **Wally Porter K6URO**

Members: **Vic Black AB6SO, Dave Unger W6DH, David Cooper KE6PFF, Mark Cohen KR1PTO**

SECRETARY and TREASURER REPORTS:

Adrianus Schrauwen reported the status of the membership (he filled in for **Lisa Rice** membership coordinator during the PAARA meeting on February 4, 2005). There still a lot of members that have not renewed.

Ron Chester reported on the status of club finances. He was pleased to see the number of members that had renewed so far. A reminder should be put to the members that renewal is now **\$18.00** instead of \$12.00.

OLD BUSINESS:

Bylaws revisions: **Peter Sheerin** reported on progress of the bylaws revision. The revisions need more research before final draft. It was estimated the bylaws committee need about 2 more months until presentation to the members.

Field day: **Peter Sheerin** showed Field day assignment roster and a map of the field sites; **Gerry Tucker** reported on the 3 various sites we were on. He will be talking to the people in Menlo Park; **Ron Chester** reported on the survey, 28 people signed up for operator. There were various discussions about field procedures and the use of login software. **Peter Sheerin** suggested to have the operator candidates work with the software. **Gerry Tucker** suggested to have a training session on Saturday. Both former items remained unresolved.

NEW BUSINESS:

Peter Sheerin issued a motion to pursue the Homeland Security Grant Application. **Adrianus Schrauwen** seconded it, **motion passed**. An issue of the new trailer to possibly outfit it with a foldaway tower, need to look into cost.

Ron Chester moved to investigate the antenna setup, **Rolf Klibo** seconded, **motion passed**.

Donation for **Dave Rogers K5DKR** was discussed, but not finalized

The meeting was adjourned at 21:35 hours

~*Adrianus Schrauwen W6AJS, Secretary*

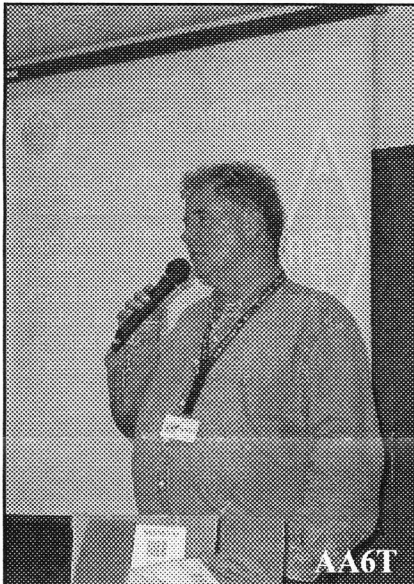




The Hot Dog Fiasco.

Several days before PAARA was to sponsor and operate the annual electronics flea market, as part of the ASVARO group, club fund raising project, we were advised that we could NOT sell hot dogs !!! This completely bizarre and extremely unfair, arbitrary ruling was ordered by the DeAnza College Administration for no justifiable reason. As a result PAARA lost our ability to generate a lot of our annual radio club funds. It is rather amazing how much money can be brought in through the sale of cooked hot dogs at this event.

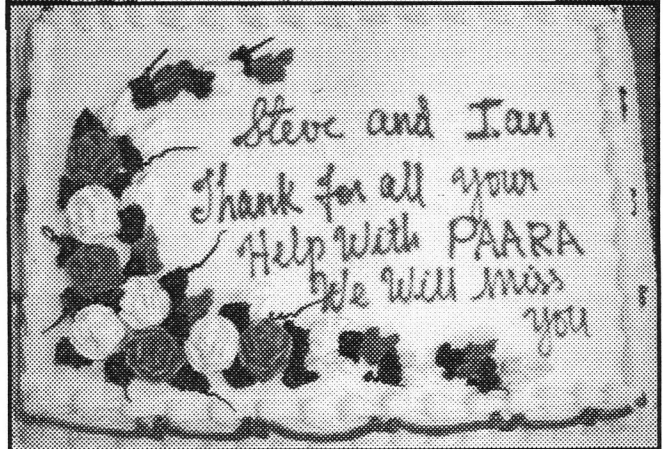
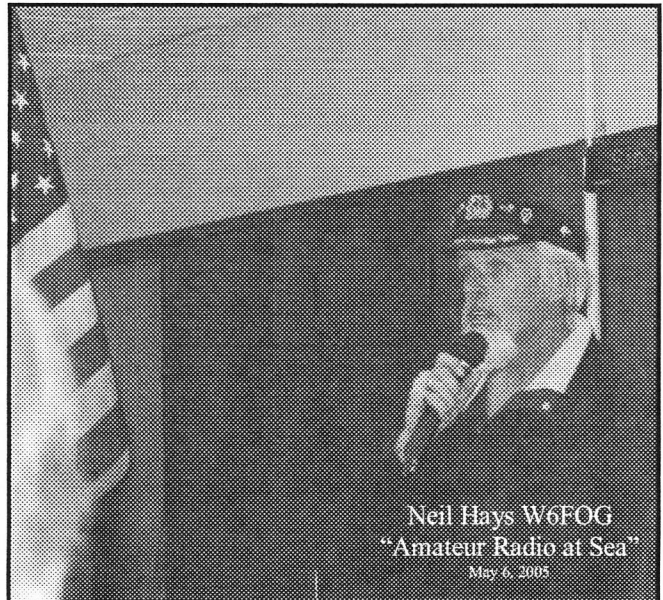
It is our understanding that someone from the DeAnza College administration toured the first ASVARO electronic flea market event last month and apparently decided that the hot dog & beverage sales appeared so busy and lucrative that they wanted a piece of the action. Therefore, they decided that the participating radio clubs



would have to hire one of their Food Service people from within the DeAnza College administration (at \$500.. per 6 hour event) to oversee the preparation and sale of any cooked item including hot dogs, hamburgers, etc. Obviously, this was ludicrous as it far exceeds the budget of any one radio club, let alone ASVARO itself. So, these people who operate the community college known as DeAnza, have literally taken it upon themselves to stop helping or providing a service for the community they serve based on simple greed.

We, the members of PAARA, were the first club faced with this huge problem. Our biggest hurdle was the lack of early information as we did not know about this situation until the 11th hour, after we had all the plans made and the hot dogs ordered. However, we were able to pull off the flea market event by selling only donuts and beverages. Needless the say, there will be meetings in the future regarding this problem and it will eventually be sorted out, as usual. In the interim however, should you know of a large area with ample parking that might be available for the monthly flea market, please contact Howard Takaoka, KG6GRO.

~Submitted by: Terry Finn. AA6T. formerly AF6TF.



Steve Brune KG6OUB

&

Ian Brune K6IAN

THE SATELLITE BEACON



A monthly article presented by the
Project OSCAR Amateur Radio Club

This Month's Topic – Improving Satellite Reception, Part 1

By Emily Clarke, W0EEC – VP of Project OSCAR

When investigating people who are unintentionally “jamming” a satellite (transmitting but unable to hear someone respond) the first thing we hear is “everything works fine – I used a repeater just before the pass.” Following up we usually discover that the ham is using antennas designed for terrestrial use, or using receivers such as scanners that do not have good specifications. When we tell the ham that the repeater 40 miles away is transmitting 100w or more, and the satellite 1200 miles away is transmitting 0.5w, the ham is usually surprised. So what makes a good satellite receiving subsystem?

Receivers

Receiver specifications are important and the primary number to look at is **receiver sensitivity** as this is the number that will tell you how strong a signal must be before the receiver can detect it. Sensitivity is measured in microvolts (μ volts), and is usually rated for 10 db signal to noise for SSB/CW, or 12db SINAD (signal + noise + distortion) for FM. An excellent satellite receiver will have a sensitivity rating of 0.11 μ volts on SSB/CW but under 0.14 μ volts is adequate. FM sensitivity should be 0.22 μ volts or better (lower is better, higher is worse.) For example, the Yaesu 847, Kenwood TS-2000 and Icom 910H all meet or exceed these figures.

If you are only interested in using FM satellites there is an important caveat that you should consider, and one I was surprised to learn while researching this article. If you check the specifications for some full duplex dual band rigs (including hand-helds) you will see that one band (Icom calls these left and right, others may refer to them as main and sub) may not be as sensitive as the other band. For example, my Icom 2720H mobile rig has a sensitivity of 0.2 μ volts on the left band, but 0.45 μ volts on the right band.

The important point to note here is that you should know your receiver specifications and make choices wisely when choosing a radio, and a radio's band.

Coaxial Cable and Connectors

At UHF and above frequencies, standard coax for HF and even VHF doesn't always work very well. If we were to use an example of 50 feet between your receiver and antenna, at 436 MHz (AO-51's downlink) RG-58 will have a loss of about 6db. This means that the signal will be only 25% as strong at the receiver as it is at the antenna. Replacing RG-58 with RG-8X may help, but you will still lose 4db or more than half the signal.

Replacing RG-58 or RG-8X with LMR-400 or 9913 will get the losses below 2db, which make a huge difference. For example, LMR-400 at 436MHz will only lose about 1.3db. So the rule of thumb is “Use the best coax you can afford.”

If there were ever to be a Murphy's law about amateur radio it's that the connectors on the cable and the connectors on the thing you are attaching it to will not be the same. My rig has type-N connectors but the antenna has a UHF connector on it. The first reaction is to use an adapter, and while this will make the connection, it will introduce additional loss. So it's a good idea to build cables that match up with connections.

Antennas

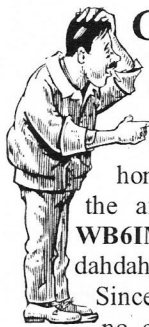
There are a number of factors here to consider about antennas and it isn't just gain. Gain is good but radiation pattern (and it's inverse, the receiving envelope) is equally important. One mistake we see is that the type of antenna being by our jammer is a 5/8 wave collinear, which has very good gain (typically 8db or better) and a narrow envelope. The problem is that the antenna is mounted vertical and the radiation pattern is horizontal, so 50% of the envelope is under ground. This is good for ground based repeaters, but really defeats the purpose for satellites as it will only receive the satellite when it is very low on the horizon.

One solution is to use an antenna that raises the envelope above ground and is rounder. Eggbeaters, quadrafillar helix and discone antennas work, but the tradeoff is gain. The rounder the pattern, the lower the gain and pattern is omni-directional. So in addition to receiving the satellite an omni will receive noise from other sources. In a suburban neighborhood this can be a problem. While an omni-directional antenna may eliminate the need for rotators, one should really consider the best solution.

A yagi antenna with an az-el rotator is always the best solution because the antenna is pointed directly at the satellite, but may not always work depending on where you live. If you absolutely have to be omni-directional make sure you have one that has a pattern that is higher than ground level, not below it.

Next Month – Part 2, Pre-Amplifiers.

CHAPLAIN'S CORNER



A few months ago our club president, **Terry Finn AA6T**, ask me if I would accept an appointment as the PAARA Chaplain. I was honored to be asked and immediately answered in the affirmative. A few days later **Al Montoya WB6IMX**, asked me "do you know dahdahdit dahdahdah dahdidit?"

Since I'm a new HAM with a technician license and no code experience of course my answer was a straightforward "What?"

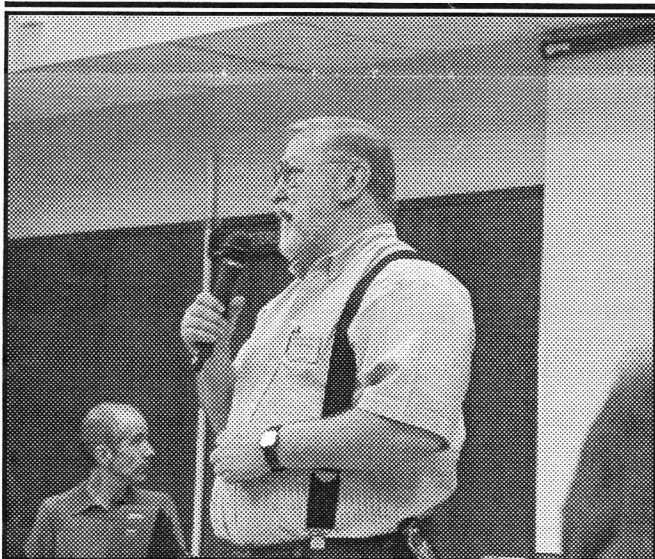
Then Al mentioned that although he wasn't an authority on the subject, he wasn't sure the club should have a Chaplain that doesn't know dahdahdit dahdahdah dahdidit. I was relieved to realize he was using a three letter word, but it still really took me back!

Well, now, after a bit of code study I can tell you that I do in fact know dahdahdit dahdahdah dahdidit.

By the way, if YOU don't know dahdahdit dahdahdah dahdidit, you might start with a bit of code study. After that, I'd sure be happy to talk with you about what I've learned over the years.

Blessings,

~Rev. Rick Line KG6TMD



Two antennas meet on a roof, fall in love and get married. the ceremony wasn't much, but the reception was excellent. ~Jobe

Skyline Drive Antenna Site ???

Near Redwood City, California

May 2005

Just out of general curiosity, I am seeking information about what appears to be a long horizontal V shaped HF antenna. It is situated west of Redwood City, California, on top of the coastal mountain range between San Francisco Bay and the Pacific Ocean. It looks like a commercial site. There are no houses nearby. It is located along Skyline Drive, also known as State Highway 35, which runs north and south through the area. The antenna is close to Skyline Drive on the west or Pacific Ocean side of the road about 1.9 miles south of the junction with State Highway 92. It is easy to see. San Francisco Bay is toward the east. San Francisco is to the north. The town of Half Moon Bay is on the west. There are several wooden poles on the site. Three of them support the V antenna. The apex is near the road and the antenna opens west toward the Pacific Ocean, away from the road. Each leg of the V has three wire strands of about equal length. However, the far end of one of the strands of the north leg has fallen and is dangling from the apex.

From previous observations I recall that at the apex, each leg of the V had a taut feed wire diagonally tapering down to a junction box that was mounted roughly half way up the wooden pole, but that box is gone now. Only these three wooden poles seem to be in use; the remainder of them do not seem to support any antennas. There is also a broad based metal tower on the side of the site that is farthest from the road. A single story blockhouse style building is near the tower. Apparently there was at one time radio equipment in the building and antennas were mounted on the tower. It looks like a typical cellular telephone cell site. The tower has no antennas on it now. The entire site appears to be abandon. It is overgrown with chaparral and probably with poison oak. As for my curiosity, I am wondering about all the usual questions. Who operated the site? When was it constructed? When was the V antenna erected? What was it used for? What other antennas were mounted on the other wooden poles? What antennas were mounted on the tower? When was the site abandon? Who owns it now? What personal experience have you had with the site? If you have any information about this antenna site, please send it to me by e-mail. My address is KR6CD@arrl.net. Thanks

Jack Daane KR6CD, San Mateo, California

Congratulations: May 6th 2005 Raffle Prize Winners

- 1st Prize: Mark Cohen KR1PTO / Heil Clear Speech DSP Speaker
- 2nd Prize: ?? / Yaesu VX-150 / 2m / 5W / HT
- 3rd Prize: Mike Gavin W6WZ / Grundig FR-200 AM/FM/SW Emergency Radio
- 4th Prize: Mike Gavin W6WZ / MFJ Dual Band Antenna
- 5th Prize: Pat Gormley KB6HZM / Ni-MH Battery Charger with Four Batteries
- 6th Prize: John Larribeau KR6MR / 1,000,000 Candle Power Spotlight
- 7th Prize: Byron Beck KG6UOB / ARRL 05-06 Repeater Directory
- 8th Prize: Seth Mallory KF6UZX / Bullfrog Electronic Cleaner
- 9th Prize: Paul Williams KG6YQY / 1 year subscription to World Radio

PAARA is having a remarkable year in 2005! If you aren't a member, please join PAARA now, and experience fun 2005 events with the "friendliest club around."

~K6AK Jim

PAARA June 3rd Meeting and Raffle

PAARA “The Friendliest Club Around”

Palo Alto Amateur Radio Association, Inc. www.paara.org

Date and Time: Friday, June 3rd, at 7:30 p.m.

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

Welcome Members and Visitors / Raffle Prizes:

FIRST PRIZE: YAESU FT-2800M, 2m / 65W / Mobile



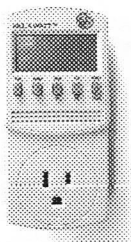
Huge Easy To Read Display
One-touch WIRES Internet Linking Access Capability
Special Memory Bank For NOAA Weather Broadcast Channels
Backlit Microphone Keypad
Smart Search Loads Active Frequencies

SECOND PRIZE: Garmin eTrex

12 Parallel Channels
6 Ounces
Completely Waterproof
500 User Waypoints With Graphic Icons
TracBac Reverses Track Log For Return Trip
22 Hours Operation on Two AA Batteries



THIRD PRIZE: Kill A Watt AC Electricity Usage Monitor



Displays: Volts, Current, Watts, Frequency, Power Factor, and VA.
After Power Is Applied Accumulates KWH And Powered Duration Time (Hours)
Press The Money Button, All Of The Factors Are Figured, And The Results Are Displayed

FOURTH PRIZE: Powerex WorldWide Travel Charger

FIFTH PRIZE: Ultimate DX World Map / Laminated 36”

SIXTH PRIZE: Gordon West 0 to 5 wpm Morse Code / 2 CD Set

SEVENTH PRIZE: Northern California Repeater Directory

EIGHT PRIZE: 1-year Subscription to World Radio

Since February 2003, 66 Radios, including a YAESU FT-847, an ICOM 706 MK IIG, and Two Elecraft KX1's have gone to Fellow Hams.

Enjoy our fabulous speakers, free refreshments, chatting with your friends, and the chance to take home an unbelievable prize. See you at Round Table after the meeting!

Contact: Kyle, KG6MSK and Ian, K6IAN, “Two of PAARA’s youngest members”
for tickets at the meeting.

Special Thanks to Bob, Howard, Mark, Rick, and everyone at HRO
for their continued SUPPORT!

~K6AK Jim

TRUCKS FOR SALE.

One 1932 Ford model BB, 1 and one half ton, dual rear wheel, four cylinder model C engine drivable truck. Requires aesthetic restoration of cab interior and a box or bed for the rear.

One 1932 Ford model BB, 1 and on half ton, dual rear wheel, eight cylinder engine, van style, drivable truck. Complete restoration almost finished with new wood, rubber, glass and interior.

Both vehicles have clean California titles and historical license plates and the ownership history is known. Both are located in Redwood City and available for inspection by request. These are the perfect advertising platforms, parade vehicles, mobile ham stations or items for your collection.

Contact: Terry Finn. AA6T. 650-366-9111.

HAM FEST

at

ANGELINO'S RESTAURANT

3132 Williams Road, at Winchester Blvd.

2:00 PM

Second Sunday each month, starting April 10.

www.Angelinosrest.com

PAARA BADGES

To order one, contact our Badge Coordinator:

Doug Teter, KG6LWE

dteter@wewi.com

PAARA Radio NET

and Swap Session
 every Monday evening
 8:30pm local time

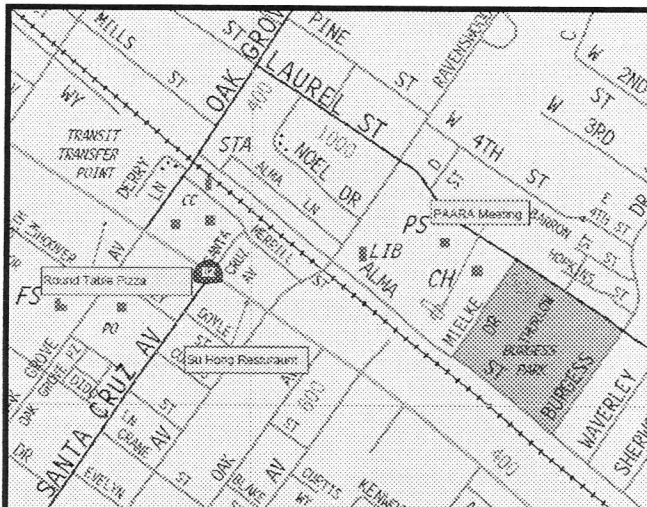
on the

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.	Peter Sheerin, K6WEB
4 th Mon.	Bill Rausch, AA6PA
5 th Mon.	Volunteer!



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, 7:30pm 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 \$18.00 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
June 3rd
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.



6 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!



VENUS CAFE
 CAPPUCCHINO • LATTE • MOCHA
 CROISSANTS • MUFFINS • PASTRIES
 BREAKFAST • SANDWICHES • BURGERS
 ICE CREAM • SHAKE • FLOAT

2655 Broadway Ave (At El Camino Real) • Redwood City • Ca. 94063
 • Telephone: (650) 368-9200

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

Tax Preparation & QuickBooks Consulting - Ham discounts

A SMALL CHURCH WITH A BIG HEART




FBC
 FIRST BAPTIST CHURCH
 OF MENLO PARK

FRIENDLY • BIBLICAL • CARING

REV. RICK LINE, KG6TMD
 SENIOR PASTOR
 PASTOR@FIRSTBAPTIST.COM

1100 MIDDLE AVENUE
 MENLO PARK, CA 94025
 TEL: 650-323-8544
 FAX: 650-323-8546
 WWW.FIRSTBAPTIST.COM

Want and For Sale ads in PAARAgaphs
 are **FREE** to members




Howard at HRO says: "HAM accessories and gift certificates are available at HRO. Congratulations to PAARA on a successful year."



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")


David Rico, W6NUC
 Owner



Jefferson Plaza Barber Shop

3125 Jefferson Ave.
 Redwood City, CA 94061

(650) 599-9664
 No Appointments



Ayudamos a la Comunidad Hispana

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

TERRY FINN — AA6T CA License # 1A28965
 234 Marshall Street, LPSTARS #3 Redwood City, CA 94063-1650



Mitchell Cipriano
 mich@hamstop.com

467 Reynolds Circle
 San Jose, CA 95112-1119

888.676.4426 / 408.453.6007
 408.453.6014 fax
 www.hamstop.com



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, AF6TF

PAARAgraphs—June 2005

Palo Alto Amateur Radio Association, Inc.
 PAARAgraphs Newsletter
 P.O. Box 911
 Menlo Park, California 94026



FIRST CLASS MAIL

FIELD DAY June 25 Menlo Park's Bayfront Park

PAARA's 2005 Field Day operations will be at Menlo Park's Bayfront Park, located at the east end of Marsh Road, just off of U.S. 101. Drive through the park entrance and follow the signs out to the North-East corner of the park

Korsak, Andy KR6DD
 504 Lakemead Way
 Emerald Hills, CA 94062-3919

94062-3919 27



12 STORE BUYING POWER

WORLDWIDE DISTRIBUTION

12 STORE BUYING POWER

KENWOOD

TS-2900 40W/50W/100W 20M

- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M

See Info Priced!

OAKLAND, CA
 2219 Livingston St., 94606
 (510) 534-5757
 (800) 854-6046
 Mark, W7YV, Mgr.
 1-800 at 23rd Ave. ramp
 oakland@hamradio.com

SUNNYVALE, CA
 510 Lawrence Exp. #102
 94085
 (408) 736-9496
 (800) 854-6046
 Howard, KR6VW, Mgr.
 50 Ford Hwy, 101
 sunnyvale@hamradio.com

ICOM

IC-7000 40W/50W/100W 20M

- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M

See Info Priced!

ALINCO

DL-1981 40W/50W/100W 20M

- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M

See Info Priced!

YAESU

FT-1000 40W/50W/100W 20M

- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M

See Info Priced!

ICOM

IC-7000 40W/50W/100W 20M

- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M

See Info Priced!

YAESU

FT-1000 40W/50W/100W 20M

- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M

See Info Priced!

YAESU

FT-1000 40W/50W/100W 20M

- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M
- 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M, 20M, 15M, 10M, 5M

See Info Priced!

Sunnyvale, 510 Lawrence Exp. #102 (408) 854-6046