

**W6OTX**

**PAARA NEWSLETTER**  
VOLUME 54, NUMBER 3, March 2005

**K6YQT**

# PAARAGraphs



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

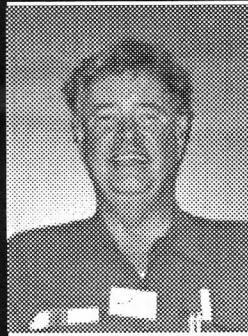


## CALENDAR

- Mar ..... 4 PAARA Meeting  
7:30-9:30  
Menlo Park Rec Center  
700 Alma Street  
Menlo Park, CA 94025
- Mar ..... 9 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)
- Apr ..... 1 PAARA Meeting, 7:30pm  
Apr ..... 6 PAARA Board Meeting, 7:30pm



## PRESIDENT'S CORNER



The Ides of March are upon us this month on the 15<sup>th</sup>. Not to be confused with ide which is used in the names of compounds, usually binary and attached to the electronegative element or radical, such as sodium chloride for example which we know to be a chemical name suffix.

The 17<sup>th</sup> is also the day for all good Irish PAARA members to celebrate St. Patrick's birthday by consuming various green things and wearing green clothing.

This is the last month for members to contribute to the Danny Rogers educational trust fund that has been established for him by PAARA to remember his father **Dave Rogers, K5DKR (SK)**. We will be presenting our donation to Dave's employer during March, so please send in what you can and ear mark it for this particular campaign.

I would like to thank **Pink, KG6ILA** for helping so much at the recent funerals for PAARA members by producing the small black call sign stickers that members wore on their PAARA name badges.

We are continuing with our efforts to streamline the Field Day operations and to give more members the opportunity to actually work as radio operators. Please give us your suggestions and speak with **Gerry Tucker, N6NV** or **Ron Chester, W6AZ** regarding this event and your availability.

~73: Terry Finn. AF6TF



## NEXT MEETING

Friday, March 4, 2005, 7:30pm

### Show & Tell & Test

The March 4<sup>th</sup> PAARA meeting is your chance to show off your latest or most favorite homebrew device, kit project, or other hack to the rest of the club. It doesn't matter how big or small your project is--you can bring antennas, transcievers, keys and paddles, or even software.

Even if you haven't built anything yourself, come see what others have built. For those that want to see if their homebuilt or factory-built radios and antennas are functioning properly, we will have a suite of test equipment, including a full service monitor, and antenna analyzers set up with experts to go along with them.

We will have time set aside for brief presentations in front of the whole club, followed by mingling time so you can see the homebrew projects up close, ask questions of their builders and designers, and take advantage of the test equipment. Please let Peter, K6WEB (at [k6web@arrl.net](mailto:k6web@arrl.net)) know by March 1st if you would like to show a couple of PowerPoint slides when describing your device (at least one photo would be great), to ensure we are prepared in advance.

~Peter K6WEB

## PAARA Membership Benefits

Dues are just \$18/year + \$6 per additional family member.

- Mailed and online versions of this newsletter
- E-mail notices about upcoming meetings & events
- Invitation to annual PAARA/FARS Winter Banquet
- Free ads in PAARA

# 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  
 Host: *Closed until Spring*.  
 Contact: <http://www.electronicsfleamarket.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 1<sup>st</sup> Friday 7:30pm each month, Net 145.230 each Monday 8:30,  
 contact: <http://PAARA.org/> or Terry Finn, AF6TF, 650-366-9111

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

**NCDXC** Northern California DX Club  
 meets 2<sup>nd</sup> 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 1<sup>st</sup> 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://specsmel.org/> or Tom Cascone, KF6LWZ, 650-688-0441

**SCARES** South County Amateur Radio Emergency Service  
 meets 3<sup>rd</sup> Thursday 7:30pm each month, San Carlos City Hall.  
 Net is on 146.445 [PL 114.8] & 444.50 (PL-100) 7:30 Monday evenings.  
 contact: <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 2<sup>nd</sup> Mon each month @ 7:30 PM.  
 contact: <http://www.qsl.net/seccara/> or Clark Murphy KE6KXO 408-262-9334  
 ARRL/VEC license testing contact 408-507-4698

**SVECS** Silicon Valley Emergency Communications  
 Operates AAGBT repeater (146.115 MHz+)  
 contact: <http://www.svecs.net/> or Lou Stierer WA6QYS 408 241 7999

**WVARA** West Valley Amateur Radio Association  
 operates W6PIY repeater 147.39+, 223.96, 441.875, 1286.2  
 WVARA now has a 6m repeater, linked to 440 and 1.2GHz  
 meets 3<sup>rd</sup> 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 3<sup>rd</sup> 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://santaclaravalley.redcross.org/> or Scott Hensley KB6UOO, (408) 967 7924  
 fshensley@Novell.com

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

**PAARAGraphs E-mail address:** [k6uro@arrl.net](mailto:k6uro@arrl.net)  
**Submit material for PAARAGraphs 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](http://www.paara.org)

## Palo Alto Amateur Radio Association, Inc.

PO Box 911 Menlo Park, CA 94026

### Officers

President.....	Terry Finn, AF6TF <a href="mailto:af6tf@arrl.net">af6tf@arrl.net</a>	650-366-9111
Vice President.....	Peter Sheerin, K6WEB <a href="mailto:k6web@arrl.net">k6web@arrl.net</a>	415-298-7383
Secretary .....	Adrianus Schrauwen, W6AJS <a href="mailto:w6ajs@arrl.net">w6ajs@arrl.net</a>	650-494-6256
Treasurer .....	Ron Chester, W6AZ <a href="mailto:w6az@arrl.net">w6az@arrl.net</a>	408-243 2221

### Directors

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

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

### Appointed Positions

Membership .....	Vic Black, AB6SO <a href="mailto:ab6so@srmn.com">ab6so@srmn.com</a>	650-366 0636
Membership .....	Lisa Rice, KG6KQS <a href="mailto:lisa.rice@sbcglobal.net">lisa.rice@sbcglobal.net</a>	650-851-2274
Database .....	Lisa Rice, KG6KQS <a href="mailto:lisa.rice@sbcglobal.net">lisa.rice@sbcglobal.net</a>	650-851-2274
Chaplin .....	Rev. Rick Line, KG6TMD <a href="mailto:kg6tmd@arrl.net">kg6tmd@arrl.net</a>	650 323 8544
Station Trustee .....	Gerry Tucker, N6NV	
Property Manager .....	Gerry Tucker, N6NV	
Badge Coordinator.....	Doug Teter, KG6LWE <a href="mailto:dteter@ewi.com">dteter@ewi.com</a>	650-367-6200
Sign Maker.....	Steve Brune, KG6OUB <a href="mailto:stevebrune@sbcglobal.net">stevebrune@sbcglobal.net</a>	650-740-4367
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 <a href="mailto:htakaoka@excite.com">htakaoka@excite.com</a>	650-856-9761
Webmaster .....	Peter Sheerin, K6WEB	

### PAARAGraphs Staff

Editor.....	Wally Porter, K6URO <a href="mailto:k6uro@arrl.net">k6uro@arrl.net</a>	650-494 7038
Photography .....	Steve Brune, KG6OUB <a href="mailto:stevebrune@sbcglobal.net">stevebrune@sbcglobal.net</a>	650-740-4367
Additional pictures.....	Dick Kors, KM6EP, John Larribeau, KR6MR, Wally Porter, K6URO	
Advertising.....	Terry Finn, AF6TF <a href="mailto:af6tf@arrl.net">af6tf@arrl.net</a>	650-366-9111
News .....	Terry Finn, AF6TF	650-366-9111
Member Profiles .....	Terry Finn, AF6TF <a href="mailto:terry@incognitoservices.com">terry@incognitoservices.com</a>	650-366-9111
Technical Tips .....	Vic Black, AB6SO <a href="mailto:ab6so@srmn.com">ab6so@srmn.com</a>	650-366 0636
Good Old Stuff .....	Andy Korsak, KR6DD <a href="mailto:kr6dd@arrl.net">kr6dd@arrl.net</a>	
The Satellite Beacon .....	Emily Clarke, W0EEC <a href="mailto:w0eec@arrl.net">w0eec@arrl.net</a>	



## **GOOD OLD STUFF** from PAARAGraphs' Past Andy Korsak

[PAARAGRAPHS History Andy Korsak KR6DD@arrl.net]  
**30 years ago February 1975 VOL. XIX No.2**  
NEXT MEETING February 7... Bob Melvin W6VSV, the UHF Society director, on antenna measurements and competitions  
WELL SIR Have you been checking into the PAARA net? Members who report a 32% increase in sleeping ability ... grip-to-gab AM (shoddier modes like FM sometimes allowed ...) ... Monday nights

on 145.24MHz ... around 8:07PM

### REPORT OF THE PARA/MENLO PARK CD RADIO CLUB MEETING 1/10/75

Gary Perazzo, K6LVJ, was the speaker ... movie "Earthquake" was shown by Jim Groenke, WA6ABQ. Gary introduced as the new **Assistant Radio Officer for the San Mateo Operational Area** ... emphasized the place for amateur radio operator in a disaster... S.M. County's Civil Defense Set-up... will monitor only 145.49 AM ... will only call on the 146.25/146.85 FM repeater... San Mateo County cities are **not set up to go on FM** ... Hal Moore, W6DEF, E.C., described the up-and-coming SET. Congrat's to Paul Thekan... now licensed as WN6IJP [currently N6FEG] PAARA ADVERTISEMENTS [10 listings] ... **Steve Stuntz, K6FS**, looking for an old SCR-522 VHF Radio Set [it seems we don't have as many wanted/sale items these days!] Lots of comments on the new proposed FCC Docket by Terry Conboy WB6GRZ Bob Wallace, K6OL, suggested a 75m net for PAARA members - perhaps the 3885 ASTRONET freq. SPARK annual Auction - 7PM Friday February 21 at Philco-Ford cafeteria behind Bldg 3 at 3825 Fabian Way in Palo Alto - registration 6PM - also a FLEA MARKET, \$3.50 per table Terry WB6GRZ submitted a circuit diagram for a "handy ten minute timer" using two 555 timers a few "glue" parts.

### **30 years ago March 1975 VOL. XIX No.3**

NEXT MEETING March 7 A guided tour into the world's largest and oldest Resonant Cavity! George Oetzel and Lambert Dolphin from Stanford Research Institute about their **Egyptian expedition into Cheop's tomb!** ... attempts to find the old king's burial site with HF radar W6QIE code practice 3590kHz Tue thru Sun 8:00PM ... thanks to Tiff W6GNX for donation of tri-band antenna for Field Day ... SET Jan 25-26, participation of K6YQT [Menlo Park CD Club (associated with PAARA)] by Bob K6OL, Chief Scientist of USGS, who toured the San Andreas fault with his mobile station. Also participants: Hal W6DEF, Andy VE3FZK/W6, "Tiff" W6GNX, Vance W6FLE, Ken K6DRN, Al W6TFT, PAARA Pres. K6WD, Jim WA6NIL.

"**HOW HAM RADIO GOT ITS NAME**" (1/4 page article by Rick WA6NCX /now W6NIR/ subtitled "A Preposterous Piece of Picturesque Prose" by R. Louis) [Rick, who WAS that?] [A very funny story!]

"**A LOW-NOISE TWO METER PREAMP**" Article with circuit diagram by Terry Conboy W6GRZ – used a dual-gate MOSFET for a low noise figure

### **20 years ago February 1985 Vol.27 No.2**

Meeting Fri. Jan 4 1985 7:30PM Speaker: **Howard Nurse WD6A** (ex-W6LLO), "Image Communications with the APPLE II Computer" – demo of "PHOTOCASTER" and talk on **application to ham slow scan TV** Rob KA6NAN set up a digipeater KA6NAN-1 at 2400' overlooking Palo Alto ... used the GLB controller ... highest level serving Bay Area packet community ...

President's Corner ... encouraged members to remember the Monday night net on 147.45 MHz at 8:30PM

Contest Corner ... January VHF Sweepstakes ... Bob Gallagher KA6IRT and Ala Larson WA6AZP joined a team to operate NU6S on a mountain south of San Jose .. appreciated hearing from PAARA members... February will include the North American Sprint, which Tom Schiller N6BT described in his talk to PAARA a couple of years ago ...

220 MHz Digipeaters Scott Miller WB6QPM is establishing two new 220 MHz digipeaters in the San Francisco Bay area ... 223.58 MHz ... intended to serve RACES

### **20 years ago March 1985 Vol.27 No.3**

Speaker will be Willie Nelson, a Geologist, on "Antartica"

Article "PACKET NETWORK COORDINATION" by KA6M

Letter from Vance Wardlow W6FLE, regarding where the call sign W6OTX came from and why was it assigned to PAARA. It was the call sign of the first member of PAARA who lost his life in WWII. His name was Wilbur Lauridsen. He lived in Palo Alto and was a member of the **Naval Reserve Security Group Number Five**. I [Vance] was the C.O. of this unit, we had headquarters at Stanford old "Wood Perker Hall" (ex womens Gym). In early 1941 Wilbur was called to active duty and was assigned to a Naval Security Unit stationed on Corregidor, P.I. He was there at the time of the Japanese invasion. He escaped by ship to Indonesia. From there he was assigned to a Unit in Australia but **his ship was sunk by the Japanese in Suribya Straights**. It was a Dutch cruiser. The Club asked to be assigned his call sign after the war and FCC agreed.

The Foothill Flea Markets will soon be here again. Starting in March, every second Saturday, running from about 8 to 2. Location: parking Lot C, near the Electronics Museum.

A report on **FOURTH COMPUTER NETWORKING CONFERENCE** via KA6M

### **10 Years ago February 1995** [only a single sheet titled **PAARAPhrases**]

Friday, February 3rd Our new Santa Clara Valley Section Manager, Kit BLANKE, WA6PWW, will be our featured speaker ... VHF contesting and Earth-Moon-Earth (EME) contacts ... thanks to our Secretary Vic BLACK, AB6SO, for arranging Kit's appearance.

Temporary editor Bill KE6CHQ wrote: PAARAGRAPHS is the 'public face' of our club. I think everyone was (or should be) proud of **Lily N6PGM**'s publication. Once could hand a copy of it to a new ham, a government official or anyone else and be assured of a **proud, competent and capable organization**. ... PAARAPhrases wasn't meant to be. It is a stopgap measure, meant to fill a gap until a new Editor can be recruited ... I [Bill] agreed to produce a one-page newsletter for **ONE MONTH** ... My duties as a Red Cross disaster worker ... impossible ... to assume such critical functions for long. Be a hero and save our club!

### **10 Years ago March 1995 VOLUME 44, NUMBER 3\***

Meeting March 3, Speaker: Glenn Cohen, KD6ITC of Scanners Unlimited, "Recent advances in Scanner Techniques"

**Directors Note:** Koert Koelman (KC6WCI) ... a few words in a reborn PAARAGraphs. Thanks to Wally Porter (K6URO), your publication will take on new life. Support Wally with your input ... Vic Black (AB6SO) will soon conduct a survey ... to determine what ... activities .... speakers [etc] ... PAARA sponsors the March 11 flea market. Dave Bailey (WS6S) and Gerry Tucker (WA6LNV) have been busy putting a PAARA SWAT team together to make this flea market a big success.

\*Thanks to PAARA membership for the wonderful support you have given me the past 10 years. PAARAGraphs was my first publication experience. I learned a little with each issue due to help from many members. It has been an enjoyable experience.....K6URO.ed

## SISTER TONI. KG6RVS (SK)

PAARA member Sister Toni, KG6RVS (SK) passed away peacefully in her sleep at the age of 67 on Thursday, January 20, 2005 at the Dominican Sisters Motherhouse in Fremont.

Her full real name was Sister Antonine Viegas (OP). She was born on October 25, 1937 in San Francisco. She attended the St. Elizabeth High School in Oakland (class of 1956) before her entrance into the Dominican Sisters of Mission San Jose in 1956. Sister Toni's ministry of teaching included elementary schools in San Francisco (St. James; St. Anthony and Immaculate Conception). In beth); Ukiah (St. Mary); San Jose Cabrini) Los Angeles (St. Ignasita); Portland, Oregon (St. Jo-Catherine) and Fremont (St. Leo

PAARA members Stan Towle, Gavin, W6WZ first met Sister San Jose during a lunch visit. The radio and Sister Toni was able to by their call signs. As it turned out, scanner as she had always wanted license. The rest is history, as they Mike helped the Sister earn her issued call sign KG6RVS, which to as "the reverend sister".

Sister Toni came to many was always so kind and pleasant to across. You may recall that she winning prize tickets at last years winter banquet. She was planning banquet. Sister Toni was so proud of the fact that she had been able to obtain her amateur radio operators license. She was instrumental in helping Sister Jean earn her license as well. Sister Toni and the radio station at the Mission San Jose was elmered by many PAARA members who were thoughtful enough to donate equipment and expertise in station building.

The service for Sister Toni was attended by many of her friends and relatives. There was a large turn out by PAARA members who wore the little black call sign stickers on their PAARA name/call sign badges. It was a very nice service. We said 73 to Sister Toni. Thank you for your time with us at PAARA.

~Terry Finn. AF6TF.

### New Location!

PAARA member Sister Tony, KG6RVS passed away on Thursday, January 20, 2005 at the Mission San Jose, Dominican Nuns. Services were held on Monday, January 24, 2005 at 17:00 (5pm), with a viewing at 16:00 (4pm) at The Holy Family Sisters Chapel, 159 Washington, 510-657-2468.

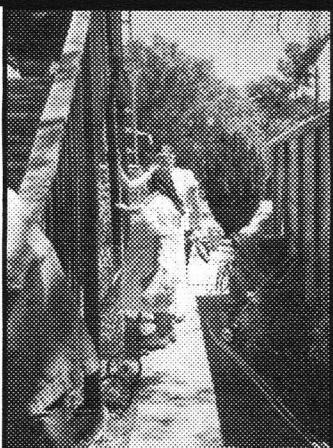
**Sister Tony, KG6RVS—Silent Key Thursday, January 20, 2005** Mission San Jose, Dominican Nuns.



Oakland (St. Eliza-  
(St. Francis  
tius; Santa Tere-  
seph); Anaheim (St.  
nard).

**WA6ZGI and Mike**  
Toni at the Mission  
conversation turned to  
identify Stan and Mike  
the Sister listened to a  
to obtain her ham radio  
say, because Stan &  
license and she was  
many people referred

PAARA functions and  
everyone she came  
pulled many of the  
joint PAARA/FARS  
on coming to this years



## GERRY TUCKER, N6NV WINS AWARD.

Our very own PAARA member was presented with the special, coveted Award of Recognition at the joint FARS/PAARA winter banquet in January.

**Gerry Tucker, N6NV**, a current PAARA Board member, received the honor and accompanying wall plaque for his extensive efforts over the years in many areas of PAARA operations. He is known to be an excellent fund raiser and has been the Field Day Coordinator for as long as many of us can remember. Gerry is a past President of PAARA and is the custodian of PAARA owned property. Let's face it folks, Gerry is a member who gets things done. The PAARA President stated during the presentation that N6NV was most deserving of this special award for his long time beneficial efforts on behalf of our radio club.

Gerry received a really nice, professionally built wooden wall plaque award that was appropriately engraved with his name, call sign and description of the things he has been responsible for over the years. On the bottom of the award was the actual manufacturers metal name tag from the old green former SRI trailer that Gerry has been taking care of for so long. This tag had been removed surreptitiously from the trailer by the PAARA Vice President for inclusion on the award. Please make sure that you congratulate Gerry when you speak with him. He is truly the epitome of what a PAARA member can and should be doing for their very own radio club.

~Terry Finn. AF6TF.

---

## Announcing An Introduction to Amateur Radio & Emergency Communications Class and Hands-on Exercises

It's a 3-hour introduction for new hams which includes: terms used in amateur radio, operating protocols, the different ham bands, and setting up your radio to access a repeater. You will learn how to participate in a directed net and handle emergency radio traffic.

Flier and registration form at <http://tinyurl.com/68wvo>  
Bring your radio (and instruction manual) if you have one. If you don't have one, come anyway; we'll have a portable radio you can borrow.

**WHEN:** Saturday, February 26, 2005, 1:00 - 4:00 PM

**WHERE:** Cubberley Center, Palo Alto,

**FEE:** \$5.00 to cover handouts

**REGISTER:** [K6PML@arrl.net](mailto:K6PML@arrl.net)

Reservations are required.

**QUESTIONS:** Paul Lufkin (Palo Alto ARES/RACES)

VOICE: 650-494-1316

E-MAIL: [K6PML@arrl.net](mailto:K6PML@arrl.net)

Be an emergency communicator! Sponsored by SPECS Southern Peninsula

Emergency Communications Systems

Visit us at <http://www.specsnet.org/>



## FEBRUARY BOARD MEETING MINUTES

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** AF6TF

Vice President: **Peter Sheerin** K6WEB

Secretary: **Adrianus Schrauwen** W6AJS

Treasurer: **Ron Chester** W6AZ

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

Membership: Vic Black AB6SO

PAARAGraphs Editor: **Wally Porter** K6URO

Members: **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

~Secretary: **Adrianus Schrauwen** W6AJS

# MEMBER PROFILE

## IS THIS THE REAL "Q" ?

### N2RAG. ROB GOODSON.

**Robert Alan Goodson, N2RAG** (formerly KG6QQC) was born in Amarillo, Texas in 1962. His father, Bob Goodson was a Presbyterian Minister who was active in the civil rights movement and actually knew and worked with Dr. Martin Luther King. His mother, Jean McLean met Bob at the Southwestern University of Memphis, Tennessee, where they both worked in various campus ministries. Rob has a sister, Karen, who was born in Austin, Texas in 1964.

Rob lived in Hays, Kansas from age four through eight. Growing up with his family allowed him to live in various geographical areas including San Marcos, Texas; St. Louis, Missouri; Denver, Colorado; and Rohnert Park, California. During the summers, his parents would teach or take classes at various schools and ministries so they would "farm out" Rob and his sister to relatives and friends. As a result, Rob experienced a wide variety of activities which included picking tobacco in Tennessee; commercial fishing in Scotland; restoring a Ford model "A" in Alabama, etc.

Rob was kicked out of the family home in Rohnert Park, California. So he quit school and traveled to the Los Angeles area at 16 years of age. He was able to obtain a job at Disney Studios as an intern where his first job in the movie industry was as a floorsweeper. He can recall being asked to clean out a couple of storage rooms and dump all of the contents into an outside dumpster. The items being discarded were actual old Hollywood films and out takes, etc, that today would probably be worth a fortune.

At 17 years of age, Rob became a member of a theatrical group which toured through Ontario, Canada and Florida. They put on shows at various dinner theaters in these areas. He had a great time, however, they did not pay very well at all. Rob then took a job as an intern with the Metropolitan Museum of Art in New York where he worked in the arms and armor department. It should be noted that this experience started him in a hobby that he still has today of collecting, designing and building specialty arms and body armor. You should ask him about this.

Rob moved on to Denton, Texas, at age 19 and earned the FCC General Radiotelephony Operators License and took a job with a commercial broadcast radio station in Tyler, Texas as the on-call radio engineer. Sadly, Rob's father passed away that year. As Rob wanted to move away from the area, he obtained a reciprocal work permit in Canada and earned the Canadian equivalent of the FCC license. He



took a job at a broadcast radio station in Kapuskasing, Ontario, where he worked as the chief radio engineer. However, after one harsh, cold winter in Ontario, Rob realized that he did not want to shovel any more snow, so he moved to Fayetteville, Arkansas. He took a job as the on-call radio engineer for the University of Arkansas (KKEG) and attended classes where he studied film making. About the same time, Rob earned his FAA private pilot's license. He bought one of the newest VHS video editing devices available at the time and offered his professional services as a videographer. He made several commercial movies and training tapes, most notably for his client, Wal-Mart.

At age 24, in 1986, Rob joined the U.S. Army in Kansas City. He took the infantry training at Fort Bragg and the airborne training (parachute) and became Army Ranger qualified. In 1987 Rob was transferred to the 75<sup>th</sup> regiment in Fort Lewis, Washington, where he was the regiment scout sniper as he was considered an expert rifleman and marksman. He was honorably discharged in the summer of 1988.

Rob took a specialists job with the Wells Fargo Security Services operation based at Informix in Lenexa, Kansas, while waiting to become a State Game Warden in Douglas County, Kansas in 1989. He also had an extra job of short order cook in the Mexican Restaurant located in Eudora, Kansas, during those years of "living lean".

From 1989 through 1992 Rob was a "roadie", traveling with several well known bands around the country putting on musical performances or concerts, most notably with "The Rolling Stones" and "AC/DC". He was part of the technical stage staff handling audio, video and special effects. Rob earned the coveted explosives manufacturing permit from the ATF during this time and became the qualified pyro techniques engineer.

In 1992, Rob became heavily involved in movie production again and was hired to be the special effects person for various production companies. He was responsible for much of the excitement that you see in movies such as: "Born on the 4<sup>th</sup> of July"; "JFK"; "Any Given Sunday"; "RoboCop" and a number of other feature films. He was also responsible for a PBS children's show known as: "Wishbone" and another well known program that spotlights a large purple creature known by many children. (We are not allowed to use the name due to contractual agreements that Rob still maintains). It should be noted that during the years that Rob worked in the movie industry, his nickname, given to him by his peers and directors, was "Q". You may recall this was the name given to the special effects and equipment person in the James Bond movies. Rob was known to be able to create just about anything they needed. Not only special effects to be filmed but special equipment, for example: the

(N2RAG Continued on page 27)

(Continued from page 26 N2RAG)

guns of the Robocop. Ask Rob to explain the problems he had transporting and securing these weapons during filming sessions in Canada. His first amateur radio call sign was QQC, so it becomes clear that Rob may now have a new nickname at PAARA. Should it be "Q" ??

In 1998 Rob became a DVD author and worked at "Vision Wise" doing DVD production for DVD discs. His clients were in Hollywood, the Silicon Valley and major corporations. At a technical convention in the Silicon Valley in 1999, Rob was offered a job on the spot as a sales representative for a digital video broadcasting equipment manufacturer, so he took the job and moved to the Bay Area.

Rob was lucky again, this time it was lucky in love, when he met Elena from Russia. She had been working in the Beverly Hills area as a professional, specialty hairdresser. After much courting via instant messaging and e-mail, Rob convinced her to marry him in 2000. In 2001, Rob took a job with "Brother International" as their international sales manager for the MPEG-2 products which involved video encoding. During one of his trips to Singapore, Rob earned the Singapore general class amateur radio operators license.

In 2004, Rob became the business manager for a company known as "Leivio" which was involved in video over IP. That company has now gone the way of many start-ups in the Silicon Valley, so Rob is considering his many options at this time and is actually working on earning his State of California Bail Agent License from the Department of Insurance.

Rob and Elena were blessed with "Sofia Lucille" in October of 2004, so they have their hands full now with another huge responsibility. Rob is a Free Mason and member of the San Mateo Lodge as well as being active in several ham radio organizations.

In 2004, Rob earned his technician license and was issued call sign KG6QQC. He still holds a MARS license of AT9AAT. He recently was issued a new call sign of N2RAG, which of course are his initials, not the long time ham term for people who rag chew on the radio. Rob owns and operates an FT-847; an Icom 2200; a Yaesu VX7R and the PC black box Icom PCR 1000. He uses a horizontal loop antenna up at 30 feet from his QTH in Burlingame and his favorite mode is voice at this time, although his interests include APRS, HF and he continues to play around with learning CW. His many PAARA and FARS friends are helping him with the code.

So, let's give a big hello to "Q", or should we say Rob, the next time we chat with him on the air or see him at the PAARA functions or the am-tech day. Thank you Rob for being an active member of PAARA.

~Terry Finn. AF6TF

## Icom 703/706 Users Group.

For those PAARA members who follow the up-dates to the PAARAsite, [www.paara.org](http://www.paara.org) you will note that several interest or users groups are being developed to provide members with specific experience or knowledge. The members who are actually involved in these activities could be referred to as Elmer's as they share their personal abilities and skills.

Another interest group is being formed for those who own and operate the Icom 706 or the 703 QRP version. The following PAARA members have offered to be Elmer's with these rather fancy, powerful transceivers. Andreas Junge, N6NU. Terry Finn, AF6TF.

Please keep an eye open for any announcements regarding a training seminar for this interest group. If you feel you can be an Elmer or just want to learn more of what the radio has to offer please meet with the others.

~Terry Finn. AF6TF.

## CALL FOR PAPERS

Project OSCAR, the world's oldest amateur radio club devoted exclusively to amateur satellites, in partnership with the Electronics Department of the College of San Mateo, is pleased to issue a call for papers for its 2005 West Coast Space Symposium. The Symposium is devoted to a broad range of topics that range from current satellite construction projects, satellite operations and general technical discussions.

The Symposium will be held on May 7<sup>th</sup>, 2005 at the College of San Mateo in San Mateo, California. The College of San Mateo is located off the 92 freeway, ½ way between the 101 and 280 freeways. It is approximately 10 miles south of San Francisco International Airport, 12 miles west of Oakland International and 25 miles north of San Jose International.

The Symposium will begin with registration, coffee and donuts at 8:00am. Presentations will start promptly at 9:00am and run until 5:30pm. Registration cost is \$15 which includes lunch and parking. Cost for students is \$8.

We are particularly interested in any presentations that might address the following topics:

- Software Defined Radio
- Amateur Radio on the ISS (ARISS)
- Digital (packet) Operations
- C-Band Groundstation Constructions
- Dish Feed Designs
- 10 GHz and Above
- Linear Transponder Design Techniques
- Telemetry and Sensor Design
- Orbital Debris Mitigation Techniques for Small Satellites\*
- Future Launch Options and Costs
- Battery and Charging Technology
- Amateur Satellites' Role in Emergency Communications\*
- Youth and Amateur Satellites\*
- Improving Field Day for Satellite Operations\*

\* Possible panel discussion topics

The Symposium has been moved to a different facility on campus that will also allow us to have room to put up antennas for live demonstrations.

For additional information please visit the Project OSCAR website at:

<http://www.projectoscar.net>

or contact the co-chairs

Emily Clarke, [W0EEC@projectoscar.net](mailto:W0EEC@projectoscar.net)

Alan Bowker, [WA6DNR@projectoscar.net](mailto:WA6DNR@projectoscar.net)

# **PAARA March 4<sup>th</sup> Meeting and Raffle**

**PAARA “The Friendliest Club Around”**

**Palo Alto Amateur Radio Association, Inc. [www.paara.org](http://www.paara.org)**

**Date and Time: Friday, March 4<sup>th</sup>, at 7:30 p.m.**

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

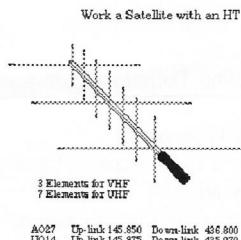
**Welcome Members and Visitors / Raffle Prizes:**

## **FIRST PRIZE: Kenwood TH-K2AT / 2m / HT**

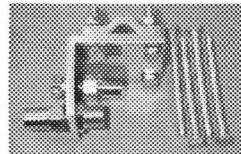


**Weather Alert  
Internal VOX  
High-Capacity Ni-MH Battery  
PC Programmable  
Large Speaker, Loud Audio  
Auto Power Off  
\$159.95 Value**

## **SECOND PRIZE: Arrow 3EL VHF, 7EL UHF Yagi**



**Portable Satellite Operation  
Maximum Gain and Efficiency  
Separate BNC Connectors  
Strong and Lightweight**



## **THIRD PRIZE: Six Foot PortableAntenna Tripod with Dipole Adapter**

**Holds Up To 75 Pounds  
Easily Collapses  
Legs Fold In  
Great For Camping, DXpeditions, Hiking**

## **FOURTH PRIZE: Powerex World Wide Travel Charger with 4 AA NiMH Batteries**

## **FIFTH PRIZE: MFJ 12/24 Hour Desk Clock / Large Display / 9V Battery Back-UP**

## **SIXTH thru EIGHT PRIZES: ARRL RFI Book, AC6V's FM 101x Book,**

**1-year subscription to World Radio**

Since February 2003, 61 Radios, including a YAESU FT-847, an ICOM 706 MK IIIG, 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*



## THE SATELLITE BEACON

A monthly article presented by the  
Project OSCAR Amateur Radio Club

**This Month's Topic – APRS® Satellites for Everyone**  
*By: Eric H Christensen KF4OTN, Project OSCAR Member*

Satellite communications has become open to most, if not all, Amateur Radio Operators around the world using simple equipment that some already have in their personal inventories. Low Earth Orbit (or LEO) satellites are being built with increasing numbers that are carrying FM repeaters and FM digital equipment that operate in the common 2m uplink and 70cm downlink or Mode-J. Because these satellites are in lower orbits amateurs with handheld and mobile radios can use these satellites as repeaters in the sky.

One new technology being implemented is the Automatic Position Reporting System or APRS®. This allows the amateur to send a short burst of data that includes the station's callsign, position, type of station, and some text up to the satellite. There it will be received and digipeated (digitally repeated) back to Earth for many other satellite operators to receive. APRS makes it possible to have simultaneous "conversations" going on over the satellite, simultaneously, without disrupting the rest of the operators.

With the equipment that is available today, there really isn't any excuse why more amateurs aren't out there enjoying these resources. Newer radios including handhelds that will interface to both mobile and handheld GPS units, and will automatically update their position. Digital messages have been sent to and from stations using this simple setup allow amateurs who are hiking, camping, or have antenna restrictions to join in and exchange messages with other hams hundreds or thousands of miles away. One ham even used APRS to beat a speeding ticket by showing the judge she couldn't have speeding because APRS recorded her speed over that stretch of road as many miles per hour less.

Currently there are two satellites active that support APRS; NO-44 (PCSAT) and the ISS, both of which can easily be used with mobile and handheld radios. At the time of this being written, both satellites are orbiting the earth listening to 145.825 MHz and waiting to hear an APRS formatted packet. Using a handheld such as a Kenwood D7A(G) dual-band handheld radio will allow amateurs to transmit position information packets up to the satellite or ISS and monitor messages from other users. The stock antenna will work, higher-gain antennae will add to your fun! Antennas like the Arrow (or similar) and the Pryme AL-800 make excellent satellite antennas for not only APRS but for voice communications too. Unlike other satellites both NO-44 and the ISS work on 2M only, so a dual band radio is not required for APRS.

NO-44 orbits at approximately 750km about the earth. With a digipeater up that high you can expect your packets to be heard for thousands of kilometers. Usually you can operate on this satellite for about ten minutes per orbit. Bulletins are transmitted on the terrestrial APRS frequency (144.390 MHz) when the satellite is overhead and in good working order. See the AMSAT Website for more information.

The International Space Station is also available for APRS. Orbiting at approximately 350km above the Earth, the ISS doesn't have as big of a footprint as NO-44. The ISS digipeater is shared with the ISS BBS so it is a little more difficult to use as there are more users on the uplink.

APRS is a fun mode to use but why not take it to the next level and utilize equipment for a completely different experience. If a one-hop QSO that would land your packet over 3000km away doesn't sound like fun, then I don't know what does!

For additional information on Amateur Satellites, check out the following websites:

Project OSCAR – [www.projectoscar.net](http://www.projectoscar.net)

AMSAT – [www.amsat.org](http://www.amsat.org)

ISS APRS Log – <http://www.findu.com/cgi-bin/ariss/index.cgi>

PC Sat APRS Log - <http://www.findu.com/cgi-bin/pcsat.cgi>

WB4APR's Website - <http://web.usna.navy.mil/~bruninga/>

### Congratulations: Feb 4th 2005 Raffle Prize Winners

- 
- 1<sup>st</sup> Prize: Jean-Claude Guillon W6JVG/ Uniden Bear Tracker BCT8 Scanner**
  - 2<sup>nd</sup> Prize: (not available) / Icom IC-7000 / 2m / 5.5W / H.T.**
  - 3<sup>rd</sup> Prize: Lily Suzuki W6LIL/ Kill A WattAC Electricity Usage Monitor**
  - 4<sup>th</sup> Prize: Paul Jemelian KG6JLÉARRL 2005 Handbook with CD**
  - 5<sup>th</sup> Prize: Orlando Huembes KG6VXW/ Ultimate DX World Map**
  - 6<sup>th</sup> Prize: Clark Murphy KE6KXO/ DX World Atlas**

**7<sup>th</sup> Prize: Robert Fishman K6FSH/ CQ 05-06 Amateur Radio Calendar**

**8<sup>th</sup> Prize: Andrew Gonzales KG6RWO/ 1 year subscription to World Radio**

**PAARA Members and Visitors: THANK YOU FOR YOUR SUPPORT of the exciting monthly raffles! Since Feb. 03, 61 Radios, including a YAESU FT-847, an ICOM 706 MK IIIG, and TWO Elecraft KX1's have gone to Fellow Hams, THANKS TO YOU!**

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 is soliciting donations of equipment for our annual Field Day emergency-preparedness exercise. PAARA is a 501 (c) (4) tax-exempt club, and will either use donated equipment directly, or sell it to raise funds if it's not quite something we can use.

- A replacement for our 1952 30-foot travel trailer, which has been attacked by rust and termites.
- 10'×10' or 10'×20' E-ZUP or MASTERTENT shelters.
- Five or six roughly identical, reasonably rugged laptop computers, just fast enough to run Windows XP.
- Folding chairs and tables for operating stations.

Donations are not tax deductible, but larger donations will garner you a company logo emblazoned on one or more of our trailers, tents, or other equipment.

### PAARA Web/WAP site

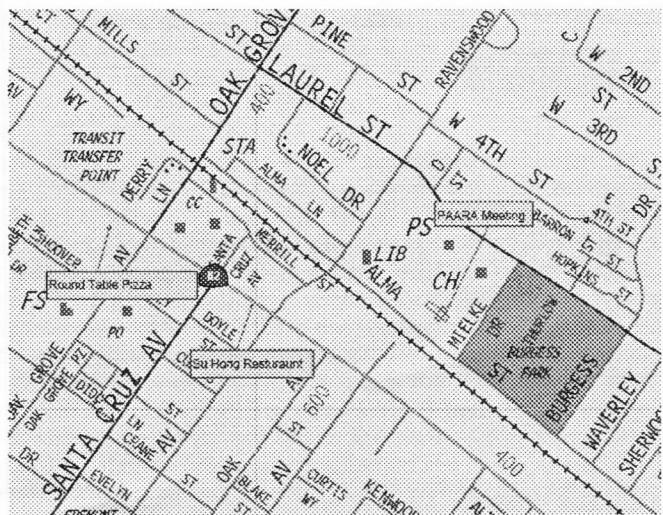
<http://paara.org/>



## PAARA BADGES

To order one, contact our Badge Coordinator:

**Doug Teter, KG6LWE**  
 dteter@wewi.com



### 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 PAARAGraphs \$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.

## 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 <sup>st</sup> Mon.	Pink Foster, KG6ILA
2 <sup>nd</sup> Mon.	Peter Sheerin, K6WEB
3 <sup>rd</sup> Mon.	Peter Sheerin, K6WEB
4 <sup>th</sup> Mon.	Bill Rausch, AA6PA
5 <sup>th</sup> Mon.	Volunteer!



*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

CAPPUCCINO • 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 discount

A SMALL CHURCH WITH A BIG HEART



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 PAARAGraphs  
 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®

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 Rice, W6NUC  
 Owner

## Jefferson Plaza Barber Shop



3135 Jefferson Ave.  
 Redwood City, CA 94061

(650) 599-9664  
 No Appointments

T. FINN & ASSOCIATES -- State License #1 9298  
**INCOGNITO SERVICES**  
 COMPREHENSIVE PROFESSIONAL INVESTIGATIONS

**TERRY FINN — AF6TF**

Legal Investigations • Surveillance • Covert Video Installations  
 Electronic Countermeasures Equipment & Services  
 Phone: 650-363-9100  
 web site: www.incoognitoservices.com  
 E-mail: terry@incoognitoservices.com

Mailing: P.O. Box 189 • San Carlos, CA 94070-0189  
 Office: 234 Marshall Street, # 3 • Redwood City, CA

## MADONNA'S BAIL BONDS

Ayudamos a la Comunidad Hispana   
 REDWOOD CITY — 650-366-9111  
 SAN FRANCISCO — 415-495-2245  
 SAN JOSE — 408-266-2245

TERRY FINN — AF6TF  
 234 Marshall Street, UPSTAIRS #3 Redwood City, CA 94083-1550  
 CA license # 1A38065

## PAARAGraphs Ad Rates

PAARAGraphs accepts paid advertisements from non-members. (short personal ads remain free for members in good standing). All ad rates listed are per issue only.  
 1. 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).

2. 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 PAARAGraphs editors reserve the right to reject any ad deemed to be not in the best interest of the Association.

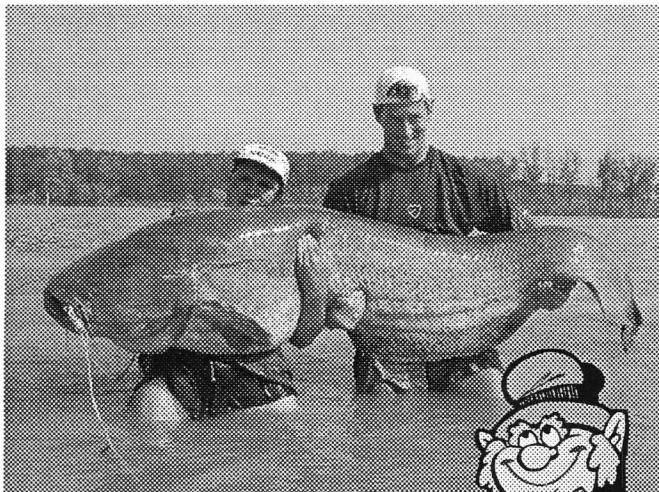
All fees payable in advance by the year with "scanner-ready" copy or text-only ads. Give payment and copy to Terry Finn, AF6TF

# PAARAgaphs—March 2005

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



## FIRST CLASS MAIL



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

**12 STORE BUYING POWER**

**TAKE OVER**  
WORLDWIDE DISTRIBUTION

<b>MR. RIBBON</b> <small>Radio Distributor</small> • 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!	<b>TH-TECH</b> <small>Radio</small> • 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!	<b>KENWOOD</b> 2210 Livingston St., 94606 (510) 534-5737 (800) 854-6046 NBS, 9177 N. Reg. 1820 22nd Ave. Camp eastbay@kenwood.com  Low Prices!	<b>SUNNYVALE, CA</b> 510 Lawrence Exp. #102 94085 (408) 736-9496 (800) 854-6046 NBS, 9177 N. Reg. 1820 22nd Ave. Camp eastbay@kenwood.com  Low Prices!
<b>VE-TECH</b> <small>Radio Distributor</small> • 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!	<b>E-TECH INC.</b> <small>Radio Distributor</small> • 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!	<b>ICOM</b> 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!	<b>BL-1981</b> <small>Radio</small> • 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!
<b>FT-1000</b> <small>Radio Distributor</small> • 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!	<b>FT-1000M/MKII</b> <small>Radio Distributor</small> • 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!	<b>ALLIED</b> 2000+ Stock Items • 1000+ New Items • 1000+ Used Items • 1000+ Hamfest Items  Low Prices!	