



# PAARAgraphs

Celebrating 62 years as an *active* ham radio club—*Since 1937*  
Newsletter for the Palo Alto Amateur Radio Association, Inc.



## CALENDAR

- Feb.....5, **PAARA Meeting**, 7:30  
Menlo Park Recreation Center  
700 Alma Street, Menlo Park
- Feb.....10, **PAARA Board Meeting**, 7:30  
Red Cross Bld., 400 Mitchell Ln., Palo Alto
- Mar.....5, **PAARA Meeting**, 7:30
- Mar.....10, **PAARA Board Meeting**, 7:30
- Apr.....2, **PAARA Meeting**, 7:30
- Apr.....7, **PAARA Board Meeting**, 7:30

## PROGRAM

February 5, 1999  
7:30 P.M.



Speaker:

**Terry Conboy, N6RY**

**“Digital Cellular”**

PAARA Radio NET every Monday evening at 8:30 P.M., local time  
on the 145.230 -600 MHz repeater, PL tone off

## PRESIDENT'S THOUGHTS

—Andreas Junge, N6NU



Dear Members,

Well, the January PAARA meeting certainly was a great one. I counted 58 attendees, more than I have ever seen at any PAARA meeting before. **Eric Schwartz** did a great job presenting the EleCraft K2 Transceiver Kit. I am one of the field testers and will keep you informed about my experience with the K2 as I put it together.

I was very pleased to see **Pat, KB6HZM** at the meeting. Pat has a severe case of MS and it certainly takes a lot of effort for him to get out of the house. Many thanks to everybody who lent a hand, especially to **Bill, K6TYO** and **Rich, W6APZ** for making sure he made it back home safe.

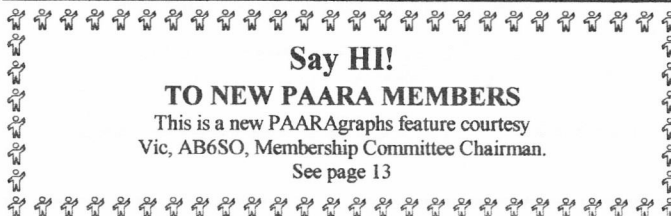
**Doug Mecham, KC6UKJ** brought a whole troop of Boy Scouts along. All of them are working on their Tech+ licenses and I am sure they will be successful. I think we need more “hands on” on-the-air events to attract young people to our hobby. I can picture all of them at our field day already!

**Robin McGlohn, KF6SRI** is also doing a great job at the Menlo High School. Maybe we will be able to tell next month how many of his students managed to pass their license exam.

I appointed **Vic, AB6SO** to be the chairman of our membership committee. Vic has been busy to contact new hams. He sent out 70 PAARAgraphs and membership forms in the last two months. I hope we will be able to get a lot of new members for our club. Nice job Vic!

That's it for now, see you at the next meeting,

73 es gud dx., **Andreas, N6NU**, [andreas@atitech.com](mailto:andreas@atitech.com)

  
**Say HI!**  
**TO NEW PAARA MEMBERS**  
 This is a new PAARAgraphs feature courtesy  
 Vic, AB6SO, Membership Committee Chairman.  
 See page 13

## Miscellaneous Dates

**Flea Market at Foothill** (info at: <http://joslin.com/FleaMarket>)  
Schedule will return in Spring '99

**PAARA** Palo Alto Amateur Radio Association  
meets 1st Friday 7:30 each month, Net 145.230 each Monday 8:30,  
contact: Andreas Junge N6NU.....(650) 233 0843

**EMARC** Electronics Museum Amateur Radio Club  
meets 4th Friday 7:30 each month,  
contact: Sheldon Edelman 650-858-2176, Edelman@richochet.net

**NCDXC** Northern California DX Club  
meets 2nd Friday 7:30 each month, repeater for member info 147.360, Thur  
8:00PM, contact: Bob Mammarella KB6FEC 408 729 1544.

**NorCalQRP** Northern California QRP Club  
meets 1st Sunday each month,  
contact: Jim Cates 3241 Eastwood Rd., Sacramento, CA 95821.

**Perham Foundation**,  
contact: Jerry Tucker WA6LNV 650-961-3266

**SPECS** Southern Peninsula Emergency Communication System  
meets each Monday 8:00PM on Net 145.27, 224.36, 440.80 MHz  
contact: Mike Hastings KB6LCJ, 408-243-6745 or 408-249-6909.

**SCARES** South County Amateur Radio Emergency Service  
meets 3rd Thursday 7:30 each month, San Carlos City Hall.  
Net is on 144.45 & 444.50 (PL-100) 7:30 Monday evenings.  
contact: Dick Collins K6ANN 650-593-8952

**SCCARA** Santa Clara County Amateur Radio Association  
Operates W6UU repeater 146.385+ Nets: 2m, W6UU, 7:30 Mon; 10m,  
28.385, 8:00 Thur. meets 2nd Mon each month.  
contact: Jack Ruckman AC6FU

**SVECS** Silicon Valley Emergency Communications  
Operates WB6ADZ repeater (146.115 MHz+)  
contact: Lou Stierer WA6QYS 408 241 7999

**WVARA** West Valley Amateur Radio Association  
operates W6PIY repeater 147.39+, 223.96, 441.875, 1286.2  
meets 3rd Wed every month.  
contact: Glen Lokke Jr. KE6NBO at 408 971 8626, or glokke@pacbell.net

### Disaster Services,

**PALO ALTO CHAPTER**, American Red Cross  
Meets 3rd Wed. each month 7:30PM,  
HF, packet, BBS, ATV, OSCAR Gateway, NASA satellite,  
contact: Alan Ball 650-688-0423.

**SAN JOSE CHAPTER**, American Red Cross  
contact: Scott Hensley KB6UOO, 408 249 7093, fsh@richochet.net

**VE Exams**, 3rd Saturday each month, 11AM, 145.23- PL=100Hz  
American Legion Hall, 651 El Camino Real, R.C.  
contact: Joe KB6OWG.

## Palo Alto Amateur Radio Association, Inc. PO Box 911 Menlo Park, CA 94026

President Andreas Junge N6NU.....(650) 233 0843  
Vice President Jon Zweig, AD6FX (650) 324 8751  
Secretary Dave Rice, W6NUC  
Treasurer.....Doug Schliebus, K1DIT.....(650) 851 0727  
Membership\*.....Vic Black, AB6SO.....(650) 366 0636  
Trustee/Property/Badges..Fred Canham, K6YT .....(650) 948 9238  
ARES Officer.....Lily Anne Hillis, N6PGM .....(650) 325 5484  
Club Historian.....Steve Stuntz, K6FS.....(650) 322 4952  
Advertising.....Bob Korte, KD6KYT.....(650) 595 1842  
Webmaster ...../Andreas Junge AD6FQ.....(650) 233 0843

\*New Committee 12/98

### Board of Directors

Charles Grandjean, WD6FAF (408) 739 5185 '00  
John Buonocore, KD6ZL (650) 366 1658 '99  
Terry Conboy, N6RY (510) 944 5388 '99  
Steve Stuntz, K6FS (650) 322 4952 '99  
Doug Schliebus, K1DIT (650) 851 0727 '00  
(see "Calendar" for Board meeting times, visitors welcome)

### PAARAgaphs Staff

Editor.....Wally Porter, K6URO.....(650) 494 7038  
Database.....Don Trask, KF6JMQ.....(408) 251 6494

**PAARAgaphs e-mail address:** [wmpor@aol.com](mailto:wmpor@aol.com)

Submit material for PAARAgaphs by the 15th

**PAARA Website** <http://www.qsl.net/paara/>

## PAARA BY-LAW AMENDMENT

At the January 8 PAARA General meeting a motion was made and passed to amend PAARA By-Laws as follows: (changes are underlined)

### Amendment 1

Article II, Second sentence, shall read:

Five members of the Board of Directors shall constitute a quorum for the transaction of business.

Article III, shall read:

The Board of Directors shall consist of the officers, four directors and the immediate past president.

(January 8, 1999)

## 1999 PAARA DUES

Some members still owe '97, '98 dues. See your PAARAgaphs mailing label.

**\$12 for full membership**

**\$6 each for additional family member same address**  
One copy of newsletter

payable to PAARA and mail to:  
**PAARA, Box 911, Menlo Park, CA 94026**

or to:

**Treas. Doug K1DIT**  
(be sure to include names and calls of all members)

PLEASE include a completed copy of  
**MEMBERSHIP FORM**

(The form was in Oct. PAARAgaphs and available at PAARA meetings)

62 years

## Daily Palo Alto Times February 15, 1937

(Page 2)

### "Radio Association Elects -

Ted Peixotto is the president of the newly organized Palo Alto Radio Association, members announced today. Other officers are Charles Camp, vice-president; and L.M. Van Eaton, secretary-treasure. The association is composed of local amateur radio operators."



# WEB WANDERINGS

de Vic Black, AB6SO

Why do we emphasize web sites so much? Recent polls show that Northern Californians spend at least three times the national average on consumer electronics and seven times the national average on computers and software.

After touring the valley's surplus shops plus Fry's Electronics and HRO one eastern ham was overheard exclaiming, "I couldn't live here. I'd die from sensory overload!"

One of the really fun things about Ham Radio is that you can easily travel all over the world by radio without leaving home. For an example, try the web site located at <http://qth.com/ka9fox/index.html> by **Scott Neader KA9FOX**. It's useful to both Contesters and DXers, but also to anyone who needs information about setting up and operating an efficient station. Scott takes contesting seriously and has photos of his DX contest operations from Guatemala, Puerto Rico and St. Maartens.

There are a lot of links to other web sites dealing with QSL routes, DXpedition rentals, and sources of information for contesting rules, schedules and scores. Scott also maintains the QTH.COM Free Ham Radio Classifieds, which has become the largest ham radio swap ad system on the Internet. Over 27,000 ads were placed in the last year. Go to <http://www.qth.com/classifieds>. In December 98, he had close to 230,000 page views.

HAM LINKS galore!! No, we're not talking about breakfast sausage, but links to Ham Radio web sites. That's what you'll find at [http://users.accessus.net/~dwentz/kb9jja/jja\\_ham-links.html](http://users.accessus.net/~dwentz/kb9jja/jja_ham-links.html), the web page of **Dale Wentz KB9JJA** of Belleville, IL. Dale has over 1200 links to sites about General Information, Technical Information, Clubs, Personal Pages, Operating Modes, Swap Pages, Software, Manufacturers and Dealers. There's information for just about everyone from new hams to old hands. I found sites for QSL routes, callbook servers, news and ham statistics, lists of reflectors and nets, lots of radio history and radio museums.

There's info about time, location and propagation. Contesting, DX and DXpeditions are covered along with a RF safety. Technical information includes lots of antenna pages, rig modifications, home brew construction articles, tubes, RFI and transistor cross references. Operating modes covered include VLF, CW, balloons and rockets, QRP, ATV, SSTV, RDF, satellites and EME, VHF/UHF, digital, WEFAX and a section on 6-meters. Besides a large collection of club sites, there is info about MARS and ARES/RACES.

Dale brags that his Heathkit page is the world's largest. For nostalgia sake, I looked up the DX-35 which I used during the 1957 sunspot high. The crystal controlled transmitter ran 65 watts on CW or 50 watts on AM. The original ad touted it as "A remarkable power package for the price." What ham could possibly pass that up?

What is perhaps the world's largest ham station is featured

with photos at <http://www.qth.com/w0aih>. Located on 120 acres near Eu Claire, WI, the contest station is easy to see from I-94 by hams traveling between Chicago and Minneapolis. The main building, "The Chalet", originally housed a commercial broadcasting station. It now houses 5 HF operating positions. The 20-meter station resides in its own separate building. In addition, there are two mobile homes at the site, one used for food preparation and the other to house VHF/UHF stations. A 20-foot Airstream trailer is used for sleeping quarters between operating shifts.

The buildings are surrounded by an enormous antenna farm. There are more than 50 towers festooned with antennas of every description. Some examples will provide a good idea of the immensity of the antenna farm. On ten meters, the main stack is made up of (4) 5-element yagis stacked on a 180 foot tower. 160 meters features (11) beverages 1000+ feet long for receiving. Besides full wave 160-meter loops, there are 2 double extended Zepps 170 feet above ground. The main 40 meter antenna consists of (3) 3-element yagis stacked between 90 and 180 feet. Big signal? You bet!

January's PAARA Guest Speaker, **Eric Swartz WA6HHQ** from Elecraft, forwarded the following message: From [N7YA@aol.com](mailto:N7YA@aol.com) "Hey gang, I just created a new e-mail list devoted to my 2 favorite things. It's called Low Power DX. Its main objective is the discussion of DXing using power outputs ranging from barefoot (100 watts) down to milliwatts or less! My vision of the list is a place where the inventive minds of QRP-L mix with DXers looking for a challenge. All topics dealing with this subject are welcome. All I ask is that we keep it clean, no flame wars and please, no whining! Aside from those small requirements, come sign up and let's talk about low power DXing. To subscribe, send an email to: [LowPowerDX-subscribe@egroups.com](mailto:LowPowerDX-subscribe@egroups.com). I hope to see you all there. 73, **Adam, N7YA.**" Notice that Adam, as a DXer, considers 100 watts as low power. Hard core QRPers consider 5 watts low power whereas the EME group considers 500 watts into a single yagi to be low power.



## NEW PAARA MEMBERS

1/14/99

Jeff Wheldon, KF6PDF,

151 Tierra Del Sol, Hollister, CA 95023  
[jeff.wheldon@adept..](mailto:jeff.wheldon@adept..)

Sherman Duck, KF6TCH,

P.O. Box 345, Redwood City, CA 94064,  
 650-261-0406 (H) 650-366-8220 (W) 650-366-0634 (FAX)  
[sduck@alliancelabs.com](mailto:sduck@alliancelabs.com)

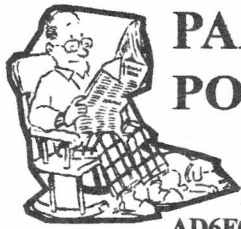
Pamela Duck, KF6TCG

Same as above except: [pduck@alliancelabs.com](mailto:pduck@alliancelabs.com)

—Thanks to Vic, AB6SO







## PAARA PONDERINGS de VIC BLACK, AB6SO

PAARA President Andreas Junge AD6FQ has been at it again. He's now

N6NU as of 30 December. That one should be easier to send in CW and short enough to drop between other call signs in DX pile-ups. Also, the South County Amateur Radio Emergency Services (SCARES) has a new club call sign K6MPN. Look for new call signs from Canada later this year. Radio Amateurs of Canada, the Canadian equivalent of ARRL, has announced a new Canadian call sign prefix for use in the newly created Nunavut Territory. "On this occasion, we are delighted to assign a new distinctive call sign prefix. Prefix VY0 (Victor Yankee Zero) becomes effective 1 April, 1999 to the territory of Nunavut to ensure a unique identification for the new territory. The Prefix VE8 (Victor Echo Eight) will remain for the use of the western North West Territories."

Vice President and Program Chairman "Dr. Jon" Zweig AD6FX has some really exciting speakers lined up for us this year. Some will explain technical ham radio topics while others will involve ham radio history, travelogues, contesting and DXpeditions. A special treat will come from a ham hero who traveled to the edge of space and involves foreign intrigue and spying. Be sure to attend the meetings so you won't miss out. Be there or be square!

The winter party was a success. We had a very good turnout of about 35 members and guests. Everyone who attended received a gift from the club of a new ARRL Repeater Directory or a box of chocolates.

The Awards Committee reports that 30 awards were issued in 1998 for checking into the Monday night net 20 or more times. This compares to 21 certificates issued in the previous year. The net meets at 8:30 p.m. local time each Monday on the W6APZ repeater, 145.230 MHz. The PL is turned off for the net to accommodate operators whose rigs don't have PL tones. After the check in, there is a call for station-to-station traffic, operating news and a swap net. Be sure to check in to receive your award this year. This is a good way to keep informed about club activities on a weekly basis.

The newly created membership outreach committee is sending club information packets and sample PAARAgaphs to newly licensed hams in the area. As a result, the membership is beginning to grow. So far, this pro-active stance has garnered 6 new members this year. Many of the newcomers will need help in learning about ham radio. Others will bring new ideas and enthusiasm to the club. Still others will be able to teach current members with their spirit of cooperation and knowledge. This is pre-

cisely what happened when we had a special event station that attracted the attention of some local hams. The result? Three of this year's officers came from those new members that came out to see what we were doing. We're witnessing the renaissance of PAARA as one of the premier clubs in Northern California. Please welcome the new members to the club. ©©© —Vic Black, AB6SO

### Bring a Show & Tell to the next PAARA meeting

### Lockheed Skunk Works

—Don Trask, KF6JMQ

I'm reading a book about the famous Lockheed Skunk Works. In a chapter about the first flights of the U2 spy plane over the USSR in 1958, a few pages are written by a U2 pilot named Marty Knutson.

"But the most exciting mission I ever flew was out of a small landing field at Peshawar in Pakistan, where we had a support unit set up in late 1958. The flight was so long range that there was no way for me to get back to the base. My main target was in Kazakhstan, a radar and missile test center, then on to a nuclear test site near Semipalatinsk and finally an overflight of a main ICBM launch test facility. By then I would have stretched the airplane's range to the limit and would be nearly out of gas. The plan called for me to glide over the Urals to save fuel and land at a tiny World War II airstrip near Zahedan, in Iran, right in the triangle where Afghanistan, India, and Pakistan converge. The agency would send in a C-130 with agents armed with grenades and tommy guns to secure the base from mountain bandits who controlled the territory. If I made across the border and saw a cloud of black smoke, it meant that the field was being attacked by bandits. If that happened, I was supposed to eject and bail out. I crossed the Russian border with only a hundred gallons of fuel remaining. Really getting hairy. I didn't see any smoke, so I came in and had less than twenty gallons left in the tank. One of the agents had a six pack of beer icing. They had an antenna set up and were supposed to send a coded message that I was safe. One of the guys came to me and said to me 'Our equipment is down. I know you are a ham operator. Do you, by any chance, know Morse code?' I'm sitting there under the blazing sun still in my pressure suit, sipping a beer in one hand, and with the other, tapping out the dots and dashes."

I decided to see if I could find Marty Knutson. He popped up in the World Radio web site as W0BBV with an address in Los Altos Hills. I tried for an email address and got one at Ames Research. It didn't work, so I called him at home. Bingo, it is the same guy. He is retired from Ames now. He might be an interesting speaker some time.





## PROGRAM NOTES:

### PAARA Program, January 8, 1998

— Steve Stuntz, K6FS

Chaired by our new president. **Andreas, N6NU**, the new year of PAARA meetings got off to a rousing start with a brilliant presentation by **Eric Schwartz, WA6HHQ**, cofounder with **Wayne Burdick, N6KR**, of new startup EleCraft. Aptos, California, and codesigner of a state-of-the-art HF QRP kit-form transceiver. Despite a late start due to bureaucratic scheduling foul-up, the meeting room was jam-packed by hams, would-be hams, and non-hams eager to get the authoritative latest word about this new rig. which had caused a heart-stopping sensation at Pacificon in October.

A ham since age 10, now a professional electronics engineer and entrepreneur, Eric described in detail the Innovative approach he and Wayne are taking toward popularizing all-mode low-power operation on the HF amateur bands. Their soon to be released inaugural venture, K2, started more than three years ago and will be a long step into the future, at the same time harking back to the halcyon days of kit-building (Heathkit, Eldico, Allied, etc.) (Note: at this writing, five PAARA members have signed up to participate as pre-production "field testers", assembling K2 kits and evaluating the experience - including instruction manual - to help EleCraft refine K2 into its ultimate form. Stay tuned for further details as we get deeper into this project.)

Using computer controlled projection slides, Eric thumb-nailed his own adventures with low-power (5 watts and less) HF operation, emphasizing portability and power-economy. He then laid out the principles governing design of K2 - fun to build, fun to use, high performance on both transmit and receive, minimal consumption of battery power, modular and upgradable layout, physical compactness and sturdiness, easy access for subsequent modification - and clean "no wires" construction, i.e. freedom from ponderous multi-wire harnesses, achieved by mounting components on circuit-boards which plug together. The overall objective is to provide the builder with a learning experience culminating in a finished, versatile advanced technology radio, capable of performing at state of the art levels in all contemporary modes.

Eric then projected views of K2's individual subassemblies, and of the complete package, noting that its overall size and weight (including an internal 3 Ah gelcell battery) make the radio brief-case portable. Several optional features, builder-selectable after completing the basic unit, enable K2 to perform comparably to the most advanced amateur transceivers now on the market. Significant attributes are the use of front panel push switch controls, finger accessible and plainly marked, and an LCD panel for showing frequency and other-

operating data. Ten frequency/mode memories are provided.

Most impressive were the receiver performance figures, showing sensitivity, intermodulation, adjacent channel rejection, etc. equaling and in some instances surpassing those of present day top of the line "big rigs".

While the basic transmitter output of the present design is 10 watts, there is planned an accessory power amplifier that will increase this to 50 or 100 watts.

Asked about possible transverters for other ham bands (6,2, even higher), Eric remarked that these will likely be future add ons.

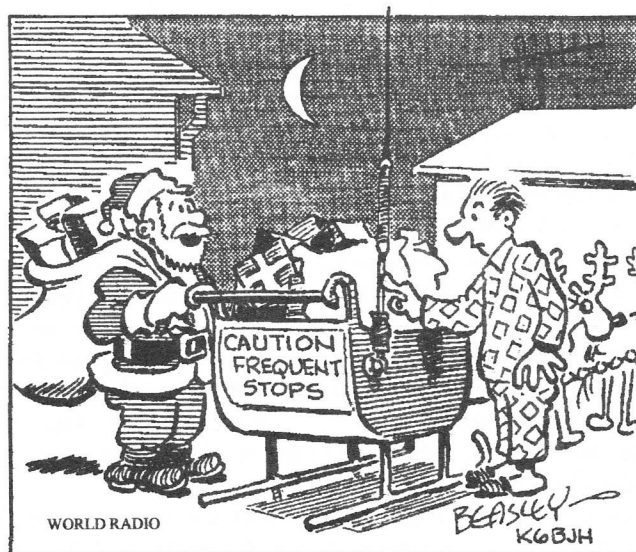
As a wind up, the completed (factory assembled) K2 was displayed and demonstrated before adjournment to Applewood pizza parlor for the customary after-meeting ragchew and brain-picking, where Eric laid open the demonstration unit for all to examine at close range, subassembly by subassembly.

Delivery of the 100 "field test" K2 kits is scheduled to start January 14\*, to hams around the world who signed up early. On and after January 25 orders will be accepted for the first post trial production run. International distribution is imminent; EleCraft has arranged with a Japanese importer/distributor for penetration into the Asian market - an interesting reversal of events, considering the long-standing trend of ham related products eastward from the other side of the Pacific.

It looks as if this rig, and upcoming others like or near it, will continue to stimulate low-power operation on the HF bands. The timing is most apt, considering the present and future state of the solar cycle.

—30—

\*(last word is a one week delay)



THOSE WORK SO GOOD I DECIDED TO KEEP THAT ONE FOR MY OWN MOBILE --- YOURS IS ON BACK-ORDER

## AMATEUR CODE

*In the 40's and 50's, the following "Amateur's Code" was promoted. This particular version was written by Paul M. Segal and appeared in the 1950 Radio Amateur's Handbook. It's reprinted with the permission of the ARRL. Out of date - maybe a little. But it does contain some good observations on what Amateur Radio was supposed to be at some point in our past - and just maybe what it should be today.....ARNS*

1 - **THE AMATEUR IS GENTLEMANLY...** He never knowingly uses the air for his own amusement in such a way as to lessen the pleasure of others. He abides by the pledges given by the ARRL in his behalf to the public and the Government.

2 - **THE AMATEUR IS LOYAL ...** He owes his amateur radio to the American Radio Relay League, and he offers it his unswerving loyalty.

3 - **THE AMATEUR IS PROGRESSIVE ...** He keeps his station abreast of science. It is built well and efficiently. His operating practice is clean and regular.

4 - **THE AMATEUR IS FRIENDLY ...** Slow and patient sending when requested, friendly advice and counsel to the beginner, kindly assistance and cooperation for the broadcast listener; these are marks of the amateur spirit.

5 - **THE AMATEUR IS BALANCED ...** Radio is his hobby. He never allows it to interfere with any of the duties he owes to his home, his job, his school, or his community.

6 - **THE AMATEUR IS PATRIOTIC ...** His knowledge and his station are always ready for the service of his country and his community.

## Rugged 2-meter Antenna

*Submitted by Jim Varner-AE6N. This appeared in the November 1998 issue of "Static", the newsletter of the London Bridge ARA, Bob Triggs-KC7UTK Editor. This appears to be a "standard" 2-meter dipole with the feedline parallel to the dipole, instead of at right angles to it. ARNS*

Here is a simple, rugged 2-meter antenna that needs no ground plane and which can be used almost anywhere. It is an ideal antenna for fiberglass boats, bicycles and emergency communications. I have seen this antenna called by several names, but I like to call it a coaxial antenna. If you like you can call it a modified ground plane.

The antenna is mounted on a fiberglass bicycle flagpole, which can be purchased at Wal-mart or K-Mart. The pole is flexible and allows the antenna to be mounted almost anywhere. To construct the antenna remove the braid from some RG-8 coax, about 20-24 inches should be sufficient. You will need two sections of this braid for the upper and lower half of the antenna. Slide one of the sections over the fiberglass pole. Then work a piece of RG-58 coax under this section of braid. The RG-58 will be your feed line to the transceiver. Tape the upper and lower sections to hold the braid and coax in place temporarily.

Now slip the other braided section over the pole to within an inch or less of the lower braid. Don't let them touch. Now temporarily tape this section in place. Now solder the inner conductor of the RG-58 to the upper braid and the shield of the RG-58 to the lower section. Remember the two sections can't

touch each other.

Pull the braid of the lower and upper sections tight and tape firmly in place. At the same time measure and trim the length of the upper and lower braid so that they are each 19.5 inches. If you have access to an antenna analyzer use it to be sure the antenna resonant to your desired frequency. If you don't have an antenna analyzer don't worry about it, as the dimensions given will be close enough to the 2-meter band.

Once your antenna is working satisfactory, place heat shrink tubing over the braid and heat to tighten and hold everything in place. I have had very good results with this antenna and it has taken a lot of abuse. You can build this antenna in an hour.

## The Electron

*This was reprinted in the September 1998 issue of "The Electron", the newsletter of the Sterling-Rock Falls ARS, Lunda Bramm-KB9CZD Editor. The author of this article is Larry Waggoner-W0KA and it originally appeared in the Bulletin of the Kansas ARPSC. ARNS*

Any important instruction or operating manual will have been discarded.

Original drawings will be destroyed in the process of copying them.

Any wire, cut to length, will be too short.

Identical units tested under identical conditions will not be identical in the field.

The availability of any component is inversely proportional to the need for that component.

If a project requires X components, there will be X-1 in the junk box.

If a particular resistance is needed, that value will not be available. Further, it cannot be developed with any possible series or parallel combination.

A dropped tool will land where it can do the most damage. (Also known as the law of selective gravitation.)

A device selected at random from a group having 99% reliability, will be a member of the 1% group.

The probability of a component value being omitted from a plan or drawing is directly proportional to its importance. Interchangeable parts won't.

Components that cannot and must not be assembled improperly will be.

Any circuit that cannot fail will.

A fail-safe circuit will destroy others.

A transistor protected by a fast-blowing fuse will protect the fuse by blowing first.

A self-starting oscillator won't.

A crystal oscillator will oscillate at the wrong frequency - if it oscillates.

A PNP transistor will turn out to be NPN.

A failure will not appear till a unit has passed final inspection.

If an obviously defective component is replaced in an instrument with an intermittent fault, the fault will reappear after the unit is returned to service.

After the last of 16 mounting screws has been removed from

*(Continued on page 17) Electron*

## AUTODIAL UP ON 523 REPEATER

de Rich, W6APZ

The emergency autodial has been reactivated on a trial basis on the 145.230 (- 600 offset) repeater. A 100 Hz subaudible tone is required for access to the machine except for some nets. The emergency autodial provides access to the police and fire/paramedics departments of 42 Bay Area cities from San Francisco and Berkeley on the north to San Jose on the south. In addition, access is provided to 14 agencies such as AAA and Allstate road services, San Mateo and Santa Clara Sheriff's departments, PG&E, telephone repair, CHP, etc. The security services of 9 Bay Area colleges are also included in the autodial.

There are two non-emergency agencies that can be used for test purposes. These are the US Geological Survey recording that provides information on earthquakes in the last 24 hours, and the Sunnyvale VEC recording which tell when and where amateur license exams will be given. It is a good idea to dial up one of these numbers when the repeater is not busy to ensure that the autodial instructions work for you and you will be able to dial an emergency agency should you need it.

Mobile stations have been heard requesting someone to dial up a particular agency. They have been heard to say: yes, they have the autodial codes, but the codes are in the glove compartment, left at home, etc. While it is best to call the agency in the area where you are, it is not practical to memorize all the codes or to dig them out of the glove compartment at 65 MPH. I have solved that problem by memorizing the access code for my city's police. Fortunately when I have had to call the Palo Alto police, upon explaining the situation, most of the dispatchers have either relayed a message or patched me into the needed agency.

While all the agency phone numbers were checked to verify that they were correct at the time of programming the repeater, numbers do change from time to time. If you dial an agency and do not reach that agency or get a recording saying the number has been changed, PLEASE let me know by email (w6apz@svpal.org), phone (650-494-0128) or snail mail (840 Talisman Drive, Palo Alto, CA 94303-4435) so I can make the appropriate corrections. We assume all numbers in the autodial are correct unless we are otherwise notified.

Access to the emergency autodial is available to all licensed radio amateurs. Please remember to identify yourself with your call sign prior to accessing the autodial. **To obtain a copy of these codes, send a Self Addressed Stamped (33 cents) Envelope (SASE) AND a photocopy of your ham license to:**

523 Repeater,  
P. O. Box 391288,  
Mt. View, CA 94039-391288.

If there are several hams in the family, only one SASE is needed. You will receive as many copies of the codes as valid ham licenses enclosed.

There is no charge for the use of the emergency autodial. It is a public service of SARS (SRI Amateur Radio Society) and SPARK (South Peninsula Amateur Radio Klub) who sponsor

the repeater. The emergency autodial codes currently in use are dated 3/97 in the lower right hand corner with the exception that the ARRL VEC number is no longer in use and disabled transportation services for San Mateo and Santa Clara Counties, Ready Wheels and Outreach, respectively, have been added. If you need those numbers, please call or email Rich, W6APZ.

### Separate item:

The 523 repeater used to have the ARRL VEC telephone recording as a test number, but as noted above that number has been disconnected. Upon communicating with Shorty, who runs the ARRL VEC, he informed me of the following.

### ARRL VEC TEST INFORMATION

Shorty, AE6Z, who is in charge of the local ARRL VEC testing program is happy to provide information about when and where the ARRL VEC test sessions will be held if you email him at: [me-ae6z@worldnet.att.net](mailto:me-ae6z@worldnet.att.net) If you have questions about the email information posted, or do not have email, Shorty is willing to accept calls at home: 408-243-8349 concerning the test sessions.

(Continued from page 16)) Electron

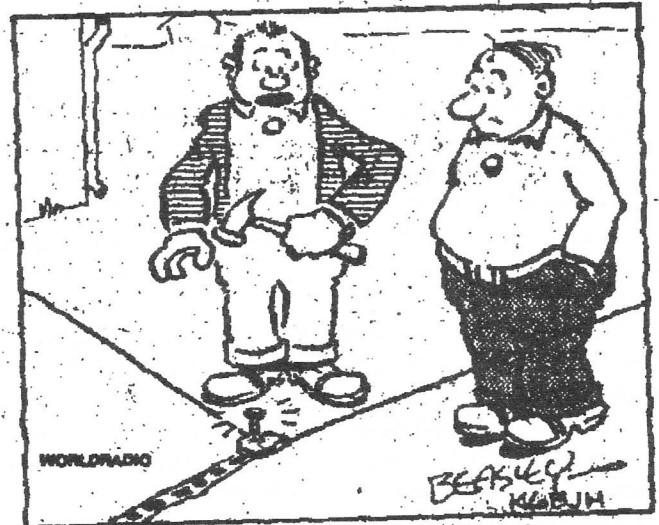
an access cover, it will be discovered that the wrong access cover has been removed.

After an access cover has been secured by 16 hold-down screws, it will be discovered that the gasket has been omitted.

After a rig has been fully assembled, extra components will be found on the bench.

Regardless of what the club's newsletter editor sets as a deadline, the President will submit his article two days later.

If there are only three places to look for an item, you'll find it on the first try. If there are more than 10 places to look for it, you'll find it in the last place.



I'LL BET YOU'RE RIGHT-- THAT'S SUPPOSED TO BE AN INVERTED VEE!





From ARRL Headquarters  
 Newington CT January 14, 1999  
 To all radio amateurs

SB QST ARL ARLB004

ARLB004 FCC official meets hams on their own turf.

The FCC's Amateur Radio enforcer, **Riley Hollingsworth, K4ZDH**, turned up in an unexpected place January 13--75 meters. In what could be an unprecedented move, Hollingsworth, legal advisor for amateur enforcement within the FCC's Compliance and Information Bureau, showed up at around 3894 kHz to discuss enforcement and encourage compliance.

"A couple of them were pretty shocked," he said. "This has never been tried before," Hollingsworth said the next morning. He said he broke in on an argument that was growing increasingly nasty in an effort to settle things down, then stayed to discuss enforcement with the hams on frequency.

Hollingsworth says he thinks one key to compliance is just getting people to listen to what he has to say. "Most people, if you can just get to them on a one-to-one basis, they'll listen," he said, reflecting his overall enforcement approach to attempt to reason violators into voluntary compliance rather than writing them up. During his time on the air, Hollingsworth confronted one individual he'd already been in touch with about alleged on-air misbehavior.

Among other things, he told those on hand that noncompliance and inappropriate on-air behavior could even threaten the hobby's HF allocations. Hollingsworth advised hams to be more tolerant and patient and to avoid confrontation or retaliation.

"We all have to realize we're on a mission here: to save Amateur Radio," he said the day after his 75-meter appearance. "There are going to be licenses lost and fines owed." The jammers already are well on their way to "hanging themselves" right now, he said.

Even as he preached better behavior, Hollingsworth says he understood from the others on frequency that someone was attempting to jam his signal. "I hope the monitoring folks were on the frequency too," he said.

Hollingsworth advised the hams on 75 to contact him with enforcement problems, and he gave out his e-mail address and telephone number, [rholing@fcc.gov](mailto:rholing@fcc.gov), 717-338-2502. "I don't know what effect it will have," he said of his on-air foray. Hollingsworth says he'll "do what it takes" to improve amateur compliance, and that could include future on-air visits with amateurs.

"I've gotten a lot of feedback this morning by phone and e-mail asking me to do it more often," he said. "We'll be listening more and asking to be allowed in QSOs more."

Hollingsworth, who's based in Gettysburg, Pennsylvania, took over the FCC's most recent Amateur Radio enforcement initiative last September. NNNN/EX

(thanks to **Don Trask, KF6JMQ**, for relaying the above)

*Politicians are like ships: noisiest when lost in the fog.*

—Bennett Cerf



VE

VE session of Saturday, January 16th was held at the American Legion Hall at 651 El Camino Real in Redwood City. On hand was the veteran honcho; **Joe**

**Horne Sr. KB6OWG**, (Joe Jr. also there to keep an eye on Joe Sr.) and the excellent workers: **Al Montoya WB6IMX**, **Dan Curry WB6STW**, and **Ron Panton W6VG**. Very good turnout of applicants, including 5 young Boy Scouts under the tutelage of PAARA member **Doug Mecham KC6UKJ**. Wonderful to see young applicants, with one being 11 years old. Once again the session was held in the bar, with no hard drinks available of course. We look forward to the return of our friend **Gene Irazzary KK6LO**. No CW exams were given due to the absence of **Bill Sooman WB6UVO**. —Ron, W6VG

## THE WAY IT WAS

□ **Charlie Grandjean, WD6FAF**



A ham who captured my attention when I was a SWL in the mid 30's was **D. REGINALD TIBBETTS, W6ITH** of Berkeley. As a ham, as a manufacturer's representative, and as a communications contractor and consultant, he had the necessary knowledge, experience and business acumen to provide a radio net vital to the builders of the San Francisco-Oakland Bay Bridge. Due to atmospheric vagaries rendering optical surveying equipment difficult to use over the distances involved during daylight hours, points of light guided by transmitted voice directions at night replaced the usual visual methods employed by civil engineers and surveyors. My recollection is that the net frequency at that time was somewhere in the vicinity of 5 meters. The net equipment with REG as the operator was used also for the general communications requirements of the construction crews working over the miles of the bridge as it evolved. As heard by me on 75 meter phone, REG would boast that he didn't have to get out of bed to go to work - all the switches, the knobs and the microphone were there within easy reach at his bedside. After many other interesting activities, REG became a silent key a couple of years ago.



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Join us for pre-meeting eyeball

**QSO February 5th**

**gab & gobble**

6 pm— at Su Hong Restaurant  
 1039 El Camino Real, Menlo Park  
 —across from Kepler's Book Store—

**PAARA** (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 Recreation Center, 700 Alma Street, Menlo Park, CA. •
- Radio NET every Monday evening, at 8:30pm, on the 145.230-600 MHz repeater, PL tone off. •

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