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VOL. XIX

AMATEUR RADIO  
STATION W60TX

1975

# PAARA GRAPHS

PALO ALTO AMATEUR RADIO ASSOCIATION, INC.

MENLO PARK CIVIL DEFENSE RADIO CLUB, K6YQT

June 75

OUR NEXT MEETING: will be on Friday, June 6, 1975, in the beautiful and wonderfully exciting Menlo Park Recreation Center, over there by the Library and of course the Police Department. The meeting starts at its usual 7:31 PM, pointy sharp.

AND THE PROGRAMME: is to be given by Jack Miller, WB6OEA, who works for the R.C.A. Land mobile Radio Equipment division in Palo Alto. Get a sneak preview of what's to come in 10 years or so in the commercial radio surplus market!! PAARA has foresight! Jack will be talking about land mobile radio equipment which is now available or is now being developed. He will have the latest Handie-Talkies and portable rigs so you can drool over this fancy new VHF and UHF radio gear. In addition, there will be a field engineer there so you can ask complicated questions.

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THE PAARA BOARD OF DIRECTORS: will work till the usual 10:00 PM or earlier on the usual Wednesday following the Friday of the meeting. This is to begin at the usual 7:30 pm in the equally usual SRI parking lot, 333 Ravenswood avenue, in Menlo Park. The only Un-usual thing about this whole mess is Our Friend the Trailer, the semi-structured, half-demolished, but 100% wholesome home of W6OTX and K6YQT. Come and help decide what in the world is happening with our micro-world of the ham radio club. (ours!)

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Speaking of meetings and such, our program 'way over there in September (holy mackerel, I'm just finishing this school year -- don't start talking about September!!) will be Win Wagener, W6VQD, speaking on his world cruise, and his maritime mobile operations. Preview lurks in February 1974 World Radio News. Plan Ahead!

\*\*\*\*-\*\*\*\*\*

We'll be using the W6OTX/6 call for Field Day this year-- It's June 28-29. Full Details next issue.....

PAARAGRAPHS IS THE OFFICIAL ORGAN OF THE PALO ALTO AMATEUR  
RADIO ASSN., AND THE MENLO PARK CD RADIO CLUB.

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June 1975

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\*\*\*PAARA PICKIN'S AND OTHER GOOD STUFF\*\*\*

Did You Know??? That the FCC announces special prefixes for the 1976 Bicentennial Year! The use of these special prefixes is completely voluntary. Prefixes only may be changed. (from May QST, page 89)

WA becomes AA		WD (??) becomes AE
WB AB	(This space for	WR AF
W AC	RENT.)	WN AK
KH6 AH6		KL7 AL7

Notice that W6OTX becomes AC6OTX (instant DX) and even K6YQT gets classy with AD6YQT. DON'T FORGET you've got to wait over 6 months before you mess with these!

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Congrats to Mel Cruts, who just became ex-WAØUMH and not only got a 6-land call WB6JST but also paid up his PAARA dues.

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USEFUL CLUB GEAR GIVEAWAY From our illimitable property custodian Ed Fairbanks W6AIN:

The following Good Gonk is up for grabs by our members and valued readers:

- A) RCA speaker, 8" diameter, Navy outdoor type.  
(translation: big, armored, battleship speaker)  
Has high and low Z connections.
- B) GE calibrated Precision Wavemnter. 3000-3700 megahertzes. That's 3.0-3.7 Gigahertz, son.
- C) Chassis Punches, 1 at 1-1/32 inches  
1 at 1 inch square.

Fone or telegraph Ed W6AIN at 322-0319 or drop a line to PAARA box 911 in Menlo Park 94025 if the item is worth anything to you. Offers taken on all!

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Don't forget that the EMARC group is having their annual Flea Market on Saturday, May 31, 1975, at the Foothill College, off highway 280 in Los Altos. It's located in parking lot T, by the museum. Starts at 8 AM for sellers, 9:30 for buyers. Sellers space is first come so get there early for first served. Costs \$3.50 per person for 2 parking stalls. Food will be available --come and sell your electronics.

REPORT OF THE BOARD OF DIRECTORS MEETING, MAY 7, 1975....

de Hal W6DEF

Present were John WN6ATL, Ed W6AIN, Fred K6YT, Terry WB6GRZ, Jerry W6LNV, and finally Hal W6DEF.

Tentative Team Captains for Field Day: Novices: John WN6ATL, CW #1, Fred, K6YT, SSB for 40 and 15 meters, Lee WB6BJB, and for SSB 20 and 80 meters Rick WA6NCX. WE NEED more volunteers for these captains...

Our Field Day Hilltop site, off La Loma Drive (the hill we don't really know if we saved!) is our Field Day site again this year, at least by verbal agreement with its new owners. We should clean it up after we leave so other people can enjoy it later. We've done it before--and we'll clean it up again! rah! A written agreement will be forth-coming. A supplement to our insurance policy will be added to cover this event.

We need more information from our members before we decide on a club simplex FM frequency for Two Meters. It will be between 147.42 to 147.54 MHz. Think about it.

Plans were made for the two Exploratoriums, held May 16, at the Eastbrook School in Los Altos and at the Fremont Hills school in Los Altos Hills on May 20th.

Field Trips during the summer were discussed but no decision was made. Seems all the good places are too darn far away.

Meeting adjourned about 10:00 PM. (liberally edited)

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Hal Reports that we received two certificates in the mail, one for Jerry Starkey WA6LIJ, in the ARRL Sweepstakes, for garnering 39732 points for first place in phone in PAARA's own competition. Fred K6YT got the CW award for 26660 points, first place in PAARA's part of the competition. Hal will present the awards at the next meeting. Congratulations.

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Look Ahead! The ARRL Atlantic Division Convention for 1976 is July 23, 24, 25, 1976 at the Ben Franklin Hotel, only  $\frac{1}{2}$  mile from Independence Hall. It all happens in Philadelphia. (never mind what W.C. Fields said about THAT place!). -- de Ed W6AIN.

GOOD STUFF TO BUY DEPARTMENT:

FOR SALE: Beautiful, almost new Drake TR-4C with noise-Blanker, power supply and speaker model MN-4, and a Shure model 444 microphone. Was brand new in December. All for only \$550.00, worth much more. CALL Al Doty, at 327-8207. W6GAQ.

\*\*\*\*-----\*\*\*\*

Guess Who?? Once upon a time there were four men who belonged to the same club. Their names were Joe Somebody, George Anybody, Jacke Everybody, and Sam Nobody. Everybody thought that he would go to the meeting, but he figured that Somebody wouldn't be friendly to Anybody, so Nobody went. Everybody was asked to assist on a project, but he thought surely Anybody would want to assist, and at least Somebody would do it, but Nobody helped out. Whenever there was a job to do, Everybody agreed with Anybody that Somebody would do it, but Nobody did. These four men died and went to their reward. Guess who got all the rewards? You're right--Nobody did.

Via Russ WAØVEE & Ham Hum

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REPORT ON THE EXPLORATORIUM IN LOS ALTOS HILLS SCHOOL

De Hal W6DEF.....

The exploratorium was almost a one hundred percent success. We worked several fellows in the morning who we nice enough to hear and talk to all the kids. On board with our operators were Vance W6FLE, Ed W6AIN, and Hal W6DEF. Others were from clubs from the south Bay Area.

The reason why the thing wasn't a complete success was that no one would talk to us in the afternoon! About 25 or 30 boys and a few girls spoke into the mike and were able to carry on a short question-answer session with the other ham. The kids stated their name, age, and class, and when the other ham came back to answer their query big smiles were seen all around. We had a little QSB with an arizona ham but otherwise there was no QRM and little problem.  
next page...

Exploratorium report Con't....

Using the call W6OTX/6, we did have a little excitement when one mother, apparently interested in the proceedings, neglected to state her age when asked by the other ham. Needless to say, she never did!

Ed W6AIN demonstrated the code with his key and audio "howler". Vance took care of the briefing during the afternoon sessions. Hal had his Comcraft with a 5/8 wave antenna so he could work into the K6QFO and WR6ADY repeater to demonstrate that part of the spectrum. The kids learned some new words, to say the least. All had a good time. de Hal W6DEF

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MORE EMERGENCY AND DISASTER COMMUNICATIONS NEWS from our illimitable E.C. and traffic man, Hal W6DEF

From the NPEC bulletin "Active Keys" for May 1975, comes this item: "Jim Knockenhauer, K6ITL has been elected chairperson of the Regional Disaster Communications council which coordinates various emergency communications groups in California."

'Amateur Radio is very much a part of this disaster planning and various sections and radio clubs are already involved. Charlie Weber WB6RPK has done much of the organizational work on this project. Charlie is the SEC of the East Bay Section of the ARRL."

Jim, K6ITL lives at 133 Sylvan Avenue, San Mateo 94403. His land-line number is 345-9511. Hope to hear from him soon for planning future disaster communications.

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Wednesday, May 14th saw the Marin County RACES "Bay Shake" drill. WR6ADC, 147.84 and .24 was used. We also used the Red Cross frequency of 47.42 MHz. The poor switchboard operator had a big scare when the Red Cross radio station operator announced that there had been a Richter 8 earthquake and THEN announced it was a drill! Oh well, next time the procedure should be reversed.

For some time the squelch at the Sequoia Region center was not working so the switchboard operators had to turn off the radio to hear their telephones. However, next page....

DISASTER NEWS, con't....

the squelch was soon repaired and Marin County now breaks it at 47.42 Mhz quite nicely. But if there was a local disaster other Red Cross services would be using the frequency and mess things up. Perhaps K6OTR would be called upon to get local traffic through. Right now W6DEF is the only available op. Could someone volunteer for duty there on Monday nites? The equipment is available--and if we could get TWO operators they could divide up the time.

Hal reports that he sent some "health and Welfare" priority messages via the NTS to Omaha (where he comes from) to inquire about some relatives and friends. Seems everyone is OK despite severe winds in that area.

The U.S. Postal Service-American Red Cross Cooperative Agreement was signed on March 20, and provides for the sharing of information on the whereabouts of persons displaced by disasters. The Postal Service will maintain a special file of change of adress made out by displaced people, and Red Cross members can use the USPS information in its relief contacts and reply activities. The agreement formalizes a long-standing practice by the two agencies.

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FLASH--Ye noble editor goes Whole Hog (as opposed to Half-Arse) FM. Yes, listen, fondle, or otherwise carp around 147.45 mHz (an official simplex channel) for my 1-watt Big Signal from an old General Electric Transistorized Progress Line portable xmtr-rcvr. Maybe the PAARA gang can get on 147.45 or thereabouts in the near future. Narrow band of course.

See elsewhere for more simple Dumb conversion data for your clunker AM rig.

\*\*\*\*\*-----\*\*\*\*\*

Ye noble editor looks with great amts. of horror on an article which appeared in the May-June edition of Elementary Electronics, page 77. It's called "Kathi's CB Carousel" and features among other things a picture of some Sweet Young Thing with a suitably constipated  
con't...



## Editorial Ravings con't...

expression on her face and an attendant article which is almost total nonsense, assuming the same old thing about how the Communicator license will almost certainly pass, how easy it is to get one, (and I quote "In short, the communicator license will be yours for the asking."), and the statement that the "communicator class is, if read carefully, CB." Holy schmolinks!

The CB service was never meant to be a communicator type of operation since it was primarily for personal business use. Furthermore, there is no basis for assuming this proposal will pass at all, let alone make the two-meter band another CB fiasco.

Another statement makes one's blood boil..."The FCC then looked at the amateur FM'er and realized (as I have from listening to them, says miss Kathi), that many are basically interested in CB-type operations".

I think this verbal hogwash typifies the uninformed and rather immature attitude of much of the sort of person one encounters on the CB band---NOT our own complex and well-planned repeater systems. Then again, I suppose immaturity and sensationalism sells magazines.

Tnx to Jim WA6QCX and  
Hal W6DEF for the info.

You got comments??

\*\*\*-----\*\*\*\*

HAM TINKERNEERING by Jerry WA6LIJ

We have all seen the hand-held 110 volt hair dryer (contains a heating element and a fan) in the bathrooms of YL's, XYL's, and some of our more modern OM's, but these dryers have important applications in the ham shack. They make excellent xcvr dusters, great for making shrink tubing pucker, and tremendous for trouble shooting. In the latter application Bob Stein, W6NBI, uses the hair dryer to heat an electronic system and then cools individual components with a freon spray to isolate defective parts. They can also be used for "enlightening" charcoal in hamburger grills on the patio. Hair dryers sell for 50 ¢ and \$1.00 at Goodwill stores. Cont next pg...

## Ham Tinkerneering Con't....

Frequently they need new cords or malfunction because they have been dropped on the floor. The latter problem is easily solved by removing a cover and straightening the motor mounts. Do you know of any other applications??

Take some of the pain out of static charges by discharging body static through a knuckle (e.g. second joint of index finger) of the hand instead of a finger tip. It doesn't hurt so much. Try it you'll like it--Maybe! Learned this from a medical doctor while flying zero G missions at 40,000 feet in a KC135 airplane some years ago. Even hams generate static electricity.

Static is produced when dissimilar substances which were in contact are separated. People with dry skin are more likely to accumulate these charges. Where humidity is low people can accumulate a potential of several thousand volts. Experts tell us that one in every ten static fires are caused by body static.

Bonding, grounding, and artificial humidification are typical solutions to static problems. Another less common solution is to ionize surrounding air by heat, high-voltage, ultraviolet light, or radio activity. Sparks are not generated because the ionized air conducts the charge safely to ground potential.

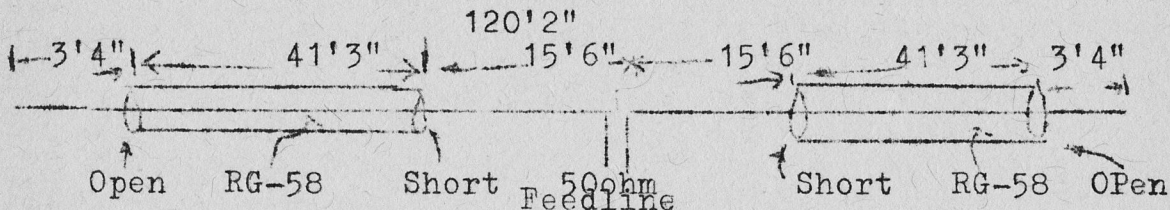
Flash bulbs carried loosely in pockets or gadget bags can cause burns. Friction of one bulb rubbing on another can set a bulb off, while its heat can set a whole lot off. Just walking across a nylon carpet can ignite a bulb in a camera. Radio transmissions and other discharges can ignite bulbs in aircraft. Be careful with loose bulbs! 73, Jerry WA6LIJ....

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TERRY'S TOP-FLITE TECHNICAL TOPICS de Terry WB6GRZ  
The mainstay of operation at my QTH has always been 80 meters. Wanting full coverage of the band for CW, RTTY, CW, and SSB has always been a problem. Having the largest fractional bandwidth (14.3%) of any amateur band is Excedrin headache #80 when you try to build an antenna. Having a normal postage stamp size city lot makes it even harder.  
con't next pg....

## Tech topics con't:

The bazooka antenna works better than a straight wire for bandwidth, but it doesn't allow paralleling dipoles for other bands (in theory or in practice). What I now use is an inverted vee with in-band traps made of shorted  $\frac{1}{4}$  wavelength stubs. you can add parallel wire elements for 40 meter operation (not shown).



With the center at 30 feet and the ends at 5 feet, VSWR is:

f	3.5	3.6	3.7	3.8	3.9	4.0
SWR	2.9	1.6	1.2	1.7	2.2	3.0

A wire inverted Vee in the same position exceeds 4.5:1 and that's at the band edges.

In my installation the traps resonate at 3870 kHz with a dipper, and without the 3'4" end sections the whole antenna resonates at 3870 kHz also.

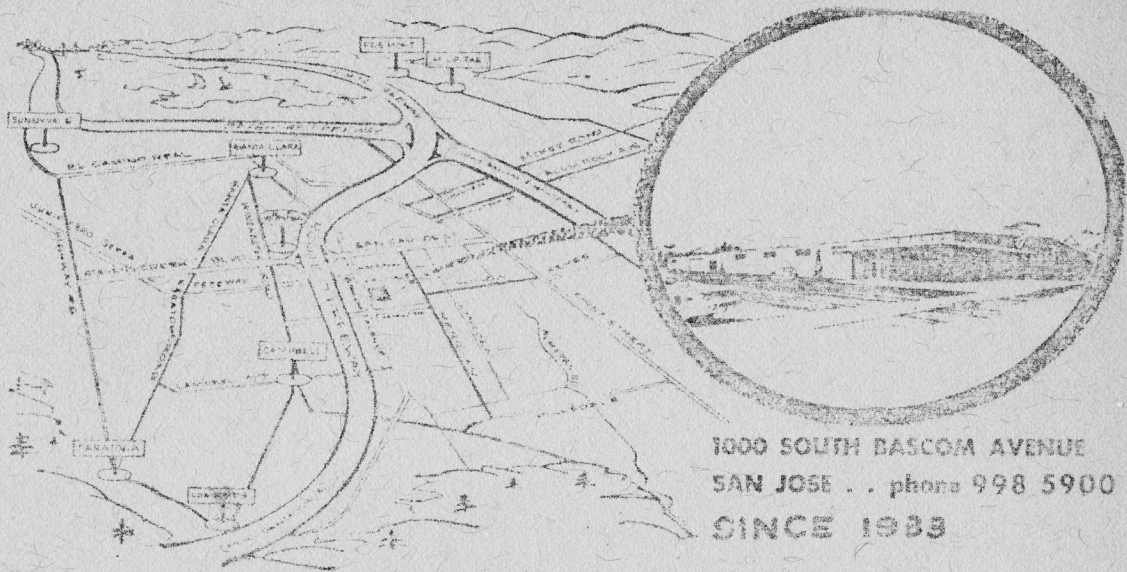
Several Changes could make the bandwidth even greater.

Being about  $\frac{1}{8}$  wavelength above ground makes the radiation resistance low--raising the antenna will lower its Q. The RG-58 could be changed to RG-8, 59, or even to low loss twinlead to improve the Q of the stub...lossy traps prevent complete decoupling of the end sections, at the high end of the band, and "fatter" conductors lower the antenna Q as well.

Remember, though, just because the SWR is low, it doesn't mean an antenna will radiate...bad ground systems in verticals are infamous for improving SWR and bandwidth at the expense of efficiency. Feedline loss at 3.5 MHz is almost insignificant at any reasonable SWR (up to 10:1). The only need for low SWR is so the crummy pi-network in you xmtr can accommodate the impedance. Good luck...Terry WB6GRZ

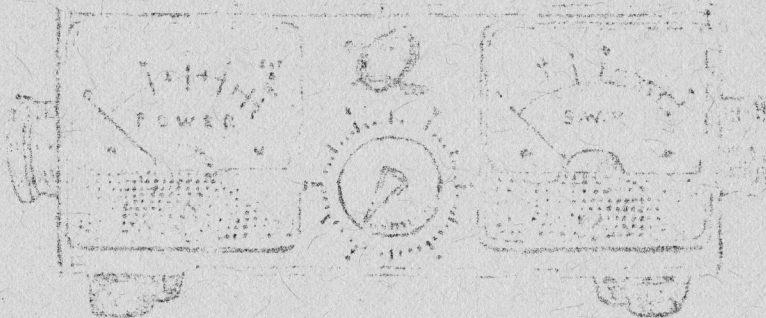
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Join the PAARA net, Mondays at 8:07 pm, 145.24 MHz. Typed while  $\frac{1}{2}$  asleep and simultaneously studying for finals...



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