

MAY 1993

PAARA

PICNIC

W6VG QTH

SAT. MAY 22nd



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PAARA POLICIES

MEMBERSHIP IN PAARA IS \$6.00 PER CALENDAR YEAR WHICH INCLUDES A SUBSCRIPTION TO PAARA/GRAPHS. MAKE PAYMENT TO THE PALO ALTO AMATEUR RADIO ASSOCIATION, P.O.BOX 911, MENLO PARK, CA 94026.

CLUB NET 147.45 MHZ MONDAYS 8:30 PM

MEETINGS: 7:30 PM ON THE FIRST FRIDAY OF EACH MONTH AT THE MENLO PARK RECREATION CENTER, 700 ALMA STREET.

SEND PAARA/GRAPHS CORRESPONDENCE TO:

CHUCK JOHNSON N6VFH, EDITOR

3309 MT. LOGAN DRIVE

SAN JOSE, CA 95127

VOLUME 36

MAY 1993

FROM THE EDITOR'S DESK

SEE YOU AT THE PAARA PICNIC ON
SATURDAY MAY 22 !

TIL NEXT MONTH, 73 DE YOUR EDITOR.

SPEAKER OF THE MONTH SPECIAL FEATURE PAARA HOMEBREW NITE !

*
* PAARA meeting Fri. May 7 will feature a "HOMEBREW NIGHT" *
*
* It's been a while since those of us that are building any *
* kind of a radio project have had a chance to show it off, *
* so bring whatever you can demonstrate or tell about (if it's *
* something like an antenna, but then maybe bring a picture!) *
*
* No particular speaker dinner is being planned, but many of us *
* usually show up at 6PM at the restaurant no matter what. *
* Someone suggested that we try another place for a change, but *
* before we confuse everybody, we'd better make it the same old *
* place for now, i.e. the SU HONG on El Camino, west side, just *
* south of Santa Cruz Ave. From: VE3FZK@NOARY *

ACTING PRESIDENT'S CORNER

DE LILY N6PGM
(QST'S FROM LILY N6PGM)



PICNIC TIME!

SATURDAY, MAY 22 IS TIME ONCE MORE FOR PAARA'S ANNUAL SPRING PICNIC AT HELGA & RON PANTON'S HOME IN MENLO PARK. WE WILL CONVENE ANYTIME AFTER 11AM. ALL PAARA MEMBERS, FRIENDS & FAMILY ARE WELCOME. PLEASE BRING SOMETHING TO BAR-B-QUE, A DISH TO SHARE, OR JUST YOUR SMILE. DRINKS WILL BE SUPPLIED BY THE CLUB & THERE WILL BE, OF COURSE, FABULOUS DOOR PRIZES.

NEW BOARD MEMBERS

CONGRATULATIONS & WELCOME TO OUR 2 NEW APPOINTED BOARD MEMBERS:

J. GOLDBERG KD6PBH &
DAVE MEACHAM W6EMD

WELCOME

ON BEHALF OF THE ENTIRE CLUB I'D LIKE TO WELCOME

AL MONTOMA WB6IMX
DICK KORS KM6EP

PAARA PICNIC SAT. MAY 22nd

#5 CEDAR COURT, MENLO PARK

RON & HELGA PANTON'S ESTATE

11 AM - 3 PM

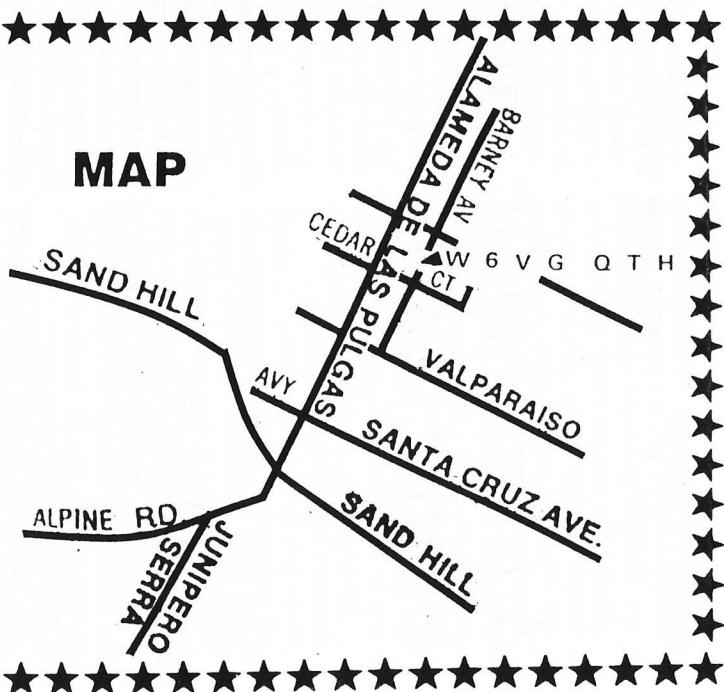
CLUB WILL SUPPLY BEER, COLD DRINKS & CHARCOAL.

BRING YOUR OWN BAR-BE-CUE GOODS. IF YOU WISH TO
BRING EXTRA SALAD OR DESSERT TO SHARE, FINE,

BUT IT IS NOT AN ORGANIZED POTLUCK. IF WIVES WISH
TO COORDINATE SOMETHING, FEEL FREE TO CALL HELGA
AT (415) 854-4814.

CALL-IN ON 145.23/R OR 147.45/SIMPLEX

MAP



By Avery Comarow
W4OGK

VIA RON W6VG

A techie's toast: 'Here's looking at you, kit'



It was 1958 and my 13th birthday was coming up.

"I want a VTV-M," I said.

My father's forehead furrowed. "A Heathkit vacuum-tube voltmeter, for measuring voltage and resistance. I'd build it. It's \$24.95. Maybe a couple of dollars more for shipping."

My father can handle a hammer and straightedge with alacrity and skill, but there were no Heathkits or vacuum-tube voltmeters when he was a kid. Sure, he said, perplexed. OK.

I plugged in my soldering iron, sorted out the resistors and capacitors, and plunged in. Some instructions I read. Others I ignored. My eyes swept back and forth across the chassis, and my fingers would fumble to clutch tiny 5/16" nuts and turn them

the static crashes. Sweet radio mystery! The Heath Company and I worked out a relationship: I supported them, if not lavishly; they kept introducing new kits. I lost count at 40 or so. Stereo systems. Tuners. Amplifiers. Receivers. Speakers. A bizarre record changer that hissed to a stop during the changing cycle to keep the records from grinding together (years later I learned that all LPs have raised rims to prevent just that). Signal generators. Oscilloscopes.

Night after night my little 30-watt soldering iron sent pungent rosin smoke curling ceilingward. The hour would grow late, and my fingers would fumble to clutch tiny 5/16" nuts and turn them

Back then, electronics also constituted Art for persons inclined to slide rules and horn-rims. Brightly banded resistors and fingernail-size ocher capacitors neatly laid out in rows on translucent green circuit boards, multicolored cables tying the boards together into a pleasing whole, constituted a techie esthetic. At one point, Heath promoted the "beautiful birch cabinet" of one of its lab instruments, and the "attractive two-color panel" of a tube tester.

I was not alone in my admiration. Heath prospered during its quarter-century heyday that spanned the 1950s, '60s and at least part of the '70s, selling hi-fi

Heath's poster-size diagrams showing the exact placement of each tiny part on the circuit board. Intuition told me to stick the tips of the wire leads into the board and solder everything in place. A rain forest of vividly-hued componenry trembled on skinny wire stalks above the circuit board when I was done, and the VTV didn't work.

I took it to a friend who fixed radios and televisions in his spare time. He stared at the mess, his face as unreadable as a poker player's. I should have tucked the parts tight up against the circuit board, he explained. It took several days to undo the damage, but finally I could measure voltage and resistance.

Kit-smitten, I tore into more Heathkits. A two-tube ham radio transmitter, the DX-20, followed. I stayed home sick (Mother knew better) the day after my ham license came. I didn't have a real antenna, so the window screen in my bedroom was pressed into service. It worked. My nervous, halting dots and dashes tossed into the ether found an ear in Florida. Jim was his name. He answered me, gearing down his natural sending speed tenfold for my benefit. We exchanged Morse code greetings through

onto tiny bolts. Occasionally I erred. Then I would consult St. Joseph, Michigan, where banks of nonjudgmental Heath technicians handled calls from confidence-impaired customers.

I left home but couldn't kick the habit. When I married, my wife had to stay out of any room where I was kitting; I didn't want anybody bumping into my muffin tins full of stuff. A transistor that fell into the rug would simply vanish. My last Heathkit, built in the late 1970s, was a 19-inch color television. It worked great until a year or so ago.

The question of motive raises its inquisitive head. Did my labor save money? I spent 50 hours building the TV—spread over more than a month of evenings and weekends—for no cash return; my labor was worth nothing. The TV cost about \$650 after buying the cabinet (an extra-cost item—classic Heath). I could have bought a ready-made model for that. Probably less.

I didn't try to figure out the kit thing until I stopped doing it. Then, of course, it was obvious. I could mess around like a 9-year-old with a chemistry set, but instead of sulfur fumes my prize would be a high-tech gadget. I was an engineer without portfolio.

millions of teenagers and postadolescents—a crew almost exclusively male, according to Heath's market research, and no surprise, either.

A year ago Heath announced that it was leaving the electronic kit business. I picked up the phone. "How can you do that?" I sputtered. The company spokesman, a woman, was unemotional. She was from a different era. People don't have time to build kits anymore, she said, marketing data flickering through her head.

She had a point. It had been more than a decade since I assembled my last kit. But it's more than a squeeze on spare hours. It's also the loss of electronics. Electronics no longer has a soul; like much of today's technology, it is functional but cold. Every VCR looks like every other VCR. All the cabinets are gray or black. Quite frankly, I can't even tell which button does what; somehow the digital displays seem to flash 12:00 within a couple of days no matter what I push. The soft glow of a vacuum tube will soon be relegated to nostalgia and the memories of codgers like me.

The *New York Times* put the Heath story on page one. It was tender and elegiac. I knew: another kit guy.

READING LIST DE N6VFH

**THE FOLLOWING TITLES OF TECHNICAL
INTEREST ARE TO BE CONSIDERED "WORTH
READING":**

VIRTUAL REALITY, THROUGH THE NEW LOOKING GLASS
Teixeira/Pimentel - TAB BOOK # 4196

SUPER VGA GRAPHICS PROGRAMMING SECRETS
Steve Rimmer - TAB BOOK # 4413

CONCISE PC NOTEBOOK & LAPTOP USER'S GUIDE
Dan Gookin - TAB BOOK # 3921

SHORTWAVE RADIO LISTENING FOR BEGINNERS
Anita Louise McCormick (KA8KGI) - TAB BOOK # 4231

THE VISUAL NATURE OF COLOR
Sloane - TAB BOOK # 50000

GRAPHIC ARTS ENCYCLOPEDIA 3RD EDITION
Stevenson/Pakan - TAB BOOK #3993

STACKER, AN ILLUSTRATED TUTORIAL 2ND EDITION
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WINDOWS 3.1 DEMYSTIFIED
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**FOR FURTHER INFORMATION ON THESE AND
OTHER TITLES AVAILABLE, CONTACT YOUR
LOCAL TECHNICAL BOOKSELLER OR TAB BOOKS,
DIVISION OF MCGRAW-HILL, INC., BLUE RIDGE
SUMMIT, PA 17294-0850. -ED**

PAARA ENCORE PRESENTATION !

N6SHY - IN THE PUBLIC INTEREST



+++PHOTOS DE NEVFH+++



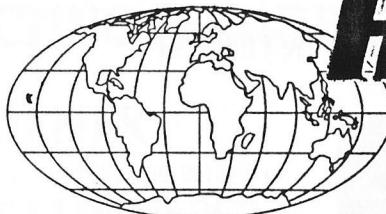
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SAN MATEO OPERATIONAL AREA
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3/5/93

RICK REED NESHY OF THE SAN MATEO COUNTY OES PAID A VISIT TO PAARA ON MEETING NIGHT MARCH 5TH-- TO SPREAD THE GOOD WORD ON ARES/RACES PARTICIPATION. IN ADDITION TO SPELLING OUT THE GENERAL PRINCIPLES OF THIS MOST IMPORTANT PHASE OF HAM LIFE, RICK PROVIDED THE OPPORTUNITY TO "JOIN UP" ON THE SPOT, AND THUS ENABLE THOSE WHO WERE INTERESTED TO BECOME A VITAL PART OF THE AMATEUR SERVICE AND THE EMERGENCY RESPONSE TEAM IN SAN MATEO COUNTY. RICK'S PRACTICAL AND NO-NONSENSE APPROACH TO THIS CRITICAL ASPECT OF AMATEUR RADIO/PUBLIC SERVICE IS A TRIBUTE TO HIS TALENTS AS A PUBLIC INFORMATION OFFICER AND A HAM AS WELL. WE WHO LIVE AND/OR WORK IN SAN MATEO COUNTY ARE FORTUNATE TO HAVE HIM IN SUCH AN IMPORTANT POSITION. KEEP UP THE GOOD WORK ! -ED.



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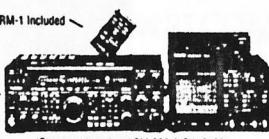
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(Shown with optional SM-230 & SW-2100)

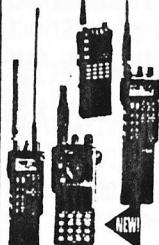
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Deluxe Duo-Band
Wide RX Band HT
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IC-P4AT, 440 MHz
IC-24AT, Duo Band
IC-2SRA, 2M + Wide Rx



ALINCO

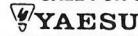
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240 Mem. w/optional
mem. unit
UHF RX



TH-225A

2 MTRS/5W

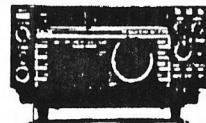
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BATTERY TEST TABLE

(From Popular Electronics, courtesy Rick Ferranti,
WA6NCX, from PAARAGraphs of many, many years ago)

VIA RON W6VG

Battery rating (volts)	Shunt (ohms)	Discard (volts)
1.5 (C, D)	13	1.27
1.5 (AA)	130	1.27
3.0	300	2.55
4.5	430	3.70
6.0 (not car batts)	620	5.10
7.5	820	6.40
9.0	1000	7.70
10.5	1100	8.90
12.0 (not car batts)	1200	10.20
15.0	1600	12.70
22.5	2200	18.70
30.0	2700	25.50
45.0	3900	38.10
67.5	5600	57.50
75.0	6200	64.00
90.0	7500	76.50

Put shunt resistor across the corresponding battery
momentarily during your measurement of the voltage
in the battery. If it is higher than the "Discard Voltage",
keep it.