U.S. POSTAGE PAID PERMIT no. 320 MENLO PARK, CA. 94025

TO:

RETURN REQUESTED: PAARA P.O. BOX 911 MENLO PARK, CA. 94025 Andy Korsak VE3F2K/W6 504 Lakemead Way Redwood City CA 94062



vol. 21 GRADHS palo alto Amateur RADIO ASSN. PAARAGRAPHS IS THE OFFICIAL ORGAN OF THE PALO ALTO AMATEUR RADIO ASSN. AND THE MENLO PARK CIVIL DEFENSE RADIO CLUB

1977 ΨΩΞΦ +<<+Ψ+ΘΣ

PRESIDENT	K6FS	STEVE STUNTZ	322-4952
VICE-PRESIDENT	VE3FZK	ANDY KORSAK	366-5228
SECRETARY	WAGLNV	GERRY TUCKER	326-4908
TREASURER	W6BFH	BOB BAUM	325-0497
TRUSTEE OF WOOTX	K6YT	FRED CANHAM	948-9238
TRUSTEE OF K6YQT	W6WQD	BOB ALLEN	
PROPERTY CUSTODIAN	W6AIN	ED FAIRBANKS	322-0319

1977 $\omega + \nabla \Theta \Phi + < \Phi + \Theta \leftarrow \Psi \rightarrow + \Theta \Sigma$

CHAIRMAN	K6FS	STEVE STUNTZ
MEMBERS	W6NIR	GERRY WAGSTAFFE
	WGAIN	ED FAIRBANKS
	W6YPM	ERV RASMUSSEN
	WB6STW	DAN CURRY
	IJA GOEN	RITT PINC

\$

PAARA POLICIES

Membership in PAARA is a meager \$4 per calendar year, which includes this FB periodical. Subscriptions alone may be had for a negative-cash-flow quantity of \$1. Cash, check, or MO to.. PAARA, PO Box 911, Menlo Park, CA 94025.

PAARAgraphs STAFF

EDITOR PRODUCTION	WB6GRZ K6YT	TERRY CONBOY FRED CANHAM	592-8750
MAILING EAST COAST CORRESPONDENT	W6AIN WA6NCX	ED FAIRBANKS RICK FERRANTI	
COVER ART	LOVELY	SUE LINDNER	

PAARA MOVES INTO THE COMPUTER AGE with the December 9th meeting.
...ON THE SECOND FRIDAY this time! The meeting will feature Jack Curtis who will explain and demonstrate his System 4000 microcomputer which is geared specifically towards use by hams. It can send and receive Morse and RTTY and in addition is a useful general purpose computer as well.

The time is 7: 30 PM and the place is the Menlo Pec Center. Be there for this interesting talk and the usual PAARA fun.

BE SURE AND SAVE MONDAY, DECEMBER 19th for the PAARA Christmas Party! It's happening at Rick's Swiss Chalet on El Camino Way in Palo Alto. Cocktails are at 6 PM and dinner at 7. Entrees are Deep Fried Scallops at \$5.95, Breast of Chicken Cordon Bleu at \$6.30, and a 10 oz. NY Steak for \$8.40. Tax and tip are included. Get your orders to Gerry, WA6LNV at the general meeting on the 9th or as soon after as possible. Monies should go to Bob, W6BFH. Dinners come with choice of soup or salad. Hope to see you all there. Even if you don't get a chance to sign up early, come anyway and join the fun.

and last minute plans for the Christmas Party.

DON'T FORGET THE EFFICIENT PAARA NETS floating about in the ether.

Monday at 8: 15 PM on 145.24 MHz AM.

Monday at 8: 30 PM on 147.45 MHz FM.

Assorted Saturdays at 9 AM on 21.393 or 14.245 USB.

President - Bob W6BFH

Vice-President - Andy VE3FZK
Secretary - Gerry WA6LNV
Treasurer - Bill WA6OFN
Director - Steve K6FS
Director - Gerry W6NIR
Director - Pill W6DVB
Director - Fd W6AIN

GOOD LUCK TO ALL!

4 NIKOLA TESLA

de Erv, W6 Yesterday's Pleasant Memories

The prodigal genius! So wrote John J. Oneill in his story of Nikola Tesla. Radio and wireless as we know it today springs from his early experiments and inventions. Born in Smiljan, Serbia on July Tenth 1857. His father was a Greek clergyman and his mother, Georgia Mandic, an inventor. Though his wide range of experiments and discoveries made him one of the worlds outstanding electricians, his invention of the induction motor and the Tesla coil as well as the rotary magnetic field principle won him world wide fame. His education begins with one year of elementary school, four years of the lower Realschule at Gospic, Lika and then to a higher school at Carlstadt, Croatia, from which he graduated in 1873. Four years of specialization at the Polytechnic school at Gratz and finally two years at the University of Prague. While at Gratz he saw the Gramme electrical dynamo armature. Struck with the objections of the use of commutators and brushes he decided to remedy this defect. Tesla arrived in America with only four cents in his pocket. However, America was the land of opportunity. While walking up Broadway he met a group of workmen trying to repair an electric motor. They paid him twenty dollars for repairing it! Like all inventors of his day, Tesla had high hopes of working with Edison. Edison hired him for work in the Orange, New Jersey Laboratory. In 1887 the Tesla Electric Company was formed, but this was short lived. In 1888 Tesla produced alternating current motors. In 1889 his system of electrical conversion and distribution was developed. He noticed the higher the frequency the less iron was needed in the transformers. Application of the theory resulted in the Tesla coil. In 1893 he wrote of a system of wireless transmission and talked of transmitting power through the air. He developed the theory of the magnetic field used in the early transmission of power at Niagara Falls. This was followed by the arc lighting system, dynamos, coils, condensers and other electrical apparatus. In 1895 at Niagara his method of generating alternating current resulted in producing 100,000 horsepower equaling the entire production of the United States. Tesla was a first class mathematician and physicist years ahead of his time. Hertz demonstrated that radio waves could be reflected by means of reflectors. It was Tesla who recognized and pointed out the practical application of this radio echo, that resulted in perfecting RADAR in World War 2.

Edison and Tesla disagreed on the systems of power transmission. Edison favored the DC type. This was so obviously limited in range that

Tesla put all of his effort in the promotion of the AC type. George Westinghouse, after carefully examining the Tesla system purchased the patents at the unheard of price of one million dollars plus one dollar per horsepower. The first major project was the Worlds Fair in Chicago in 1893, where the amazing electrical displays and lighting were achieved by the Tesla system. On the thirtieth of March, 1895, fire broke out in the Tesla laboratory and totally destroyed the equipment as well as the tokens of the World Fair together with all of his personal papers. The monetary loss was the least of his troubles. The laboratory was owned by the Tesla Flectric Company consisting of Tesla and some private investors. Tesla now found himself in financial difficulties. Westinghouse had expanded his company so rapidly that he also was in trouble. Financial interests that had stepped in demanded that the Westinghouse Company be reorganized. The financial advisors also demanded that some of the plans and projects be abandoned. This included the agreement of one dollar per horsepower. With a great deal of embarassment Westinghouse went to Tesla and explained the situation. Tesla promply tore up the agreement. This gesture cost Tesla about twelve million dollars which he could have used later in his life as he died penniless in New York January 7. 1943.

A partial list of his inventions follows. Direct current control seven patents. Polyphase current, electrical transmission of power 42 patents. Radio telegraphy, radio mechanics, methods of tuning and select detectors etc 17 patents. Steam turbines, pumps, speedometers, airplanes, oscillators and thermomagnetics 17 patents. Tesla was truly the "Prodigal Genius"

NCX-5 MKII Transceiver with heavy duty homebrew power supply and speaker. Manuals included. Recently realigned. Asking \$325. Call Ed, W6KJI at 366-8187 in Redwood City.

ATTENTION Slow Scan and ATV buffs! For Sale: Solid state Panasonic TV camera with two lenses, model WV033P for 117 vac 60 Hz. Has video and RF outputs (ch 6). Compact size; works perfectly. Fast lenses for normal (f 1.5) and wide-angle work included, which are alone worth the asking price of the whole TV camera - \$240. Call Rick WA6NCX/1 at (617) 354-8542 or 498-4767 or write 14 Divinity Ave #40, Cambridge, MA 02138.

welcome to a new member of Paara, Dave Pollack, WB6WXU. Dave can be found at 316 Sycamore Street, San Carlos, 94070. His phone is 591-5401. Say HELLO to Dave when you see him at the Dec. mtg.

THE CLUB HAS FOR SALE a rare, vintage Hallicrafters Super Skyrider, SX-28A.

It was donated to the club by Ed, WA6IEN. It covers .55 to 43 MHz in

OUR SEEMINGLY INEXHAUSTIBLE SUPPLY OF PAPER upon which by some inexplicable magic this tired publication monthy finds its way to your mailbox is not. In other words, we need more paper. The price of this stuff has risen insanely and we must buy more. If any of you have an in with a paper manufacturer or supplier, please come forward and see if you can get us a chisel-proof discount! We really don't want to have to think about raising PAARA's dues, do we?

SF Radio Club Cristmas Party is again at Yolanda's. The date is Dec. 10th, the time is 7 PM for Happy Hour and 8 PM for dinner. Cost is \$8.75 for your choice of beef stroganoff or roast chicken. Door prize and \$2 gift exchange. All CCRC club members are welcome (which includes PAARA).

December 3rd is the date for the AMSAT-OSCAR-D flight test. An aircraft will fly from Van Nuys to SF and return. Check for the liason net on 7230 controlled by W6VIO. Call of the aircraft will be WA3NDS. Operation of the satellite will be 146 to 435 MHz. Reports to Skip Reymann, W6PAJ, at PO Box 374; San Dimas, CA 91773.

A late thanks goes to Vance, W6FLE for the fine gear and the magazines that he donated to the club for our successful Oct. Auction/Flea Market. They really helped in the final totals.

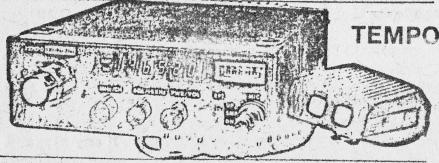
Bay Area Ham News will be sent on voice by W6OIE at 8 PM Thursdays via the San Mateo County Races Repeater on 146.25/85. Don't forget his code practice on (approximately) 146.58 MHz F2 at 8 PM every night but Monday. This is identical to the transmission on 3590 kHz at the same time.

Daily advanced and extra theory study sessions on 3954 with Louis, KASQ in San Diego. Time is from 7 to 8 AM, Monday through Friday mornings.

DAVID SMAVER SHAVER RADIC

SERVICE INSTALLATION

VHF/ONE PLUS



MORE POWER / 25 OR 5"WATTS OUTPUT SELECTABLE

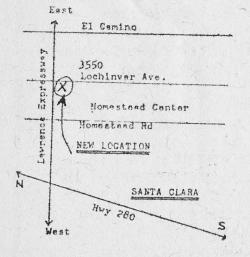
REMOTE TUNING / ON MICROPHONE

SIDEBAND OPERATION WITH SSB/ONE ADAPTER / MARS OPERATION CAPABILITY / 5 KHz NUMERICAL LED

The Tempo VHF / One Plus is a VHF / FM transceiver for dependable communication on the 2 meter amateur band • Full 2 meter coverage, 144 to 148 MHz for both transmit and receive • Full phase lock synthesized (PLL) . Automatic repeater spile-selectable up or down . Two built-in programmable channels • All solid state • 800 setectable receive frequencies with simplex and ± 600 KHz transmit frequencies for each receive channel. *Adjustable internally 3 to 15 waits

NEW LOWER PRICE

ONLY \$399.00



Now Phone 408-247-4220

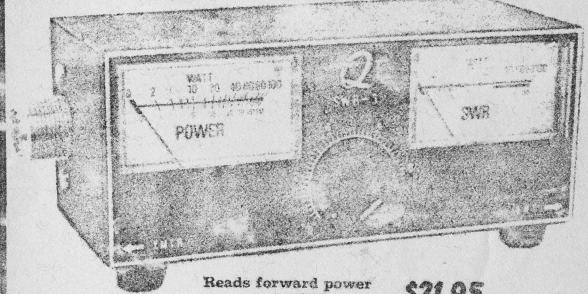
New Hours 10-7 Weekdays 9-5 Saturday

Free Coffee No Hassles!!



AMECO ASTATIC AUTEK RESEARCH BAW CALLBOOK CES DENTRON DRAKE HAM KEY HUSTLER HY-GAIN ICOM KENWOOD KLM LARSEN MFJ MYE REGENCY TEMPO TEN-TEC TURBER & MANY OTHERS

THE NEW, IMPROVED 'ORIGINAL BRIDGE'!



and SWR simultaneously. Handles full legal limit. Usable 3 thru 150 Mhz Small enough for

mobile use

\$21.95 ADD STAG FOR POSTAGE



A0.000 SQ. FT. OF ELECTRONIC PARTS. COMPONENTS, TUBES AND ACCESSORIES.

- · ANTENNAS · NEW SERVICE DEPT
- HAM GEAR ACOUSTIC SOUND DEMONSTRATION ROOM - CITIZEN'S BAND - COMPLETE STEREO N. FURSET
- COMMERCIAL AND HOUSTRIAL PARTS GUPPLY
- · Dankamericard · First national Masteronardi

1000 SO. BASCOM AVE. SAN JOSE, CA 95128 408-998-5900

P.O. BOX 6000, SAN JOSE, CA 95150