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August 3, 1979

PAARA

GRAPHS



DALO ALTO
AMATEUR
RADIO ASSN.

MENLO PARK C.D. RADIO CLUB, K6YQT

VOLUME 23 NUMBER 8

AUGUST 1979

PAARAGraphs is the official organ of

The Palo Alto Amateur Radio Association and the Menlo Park Civil Defense Radio Club

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R E G U L A R M E E T I N G

FRIDAY

AUGUST 3, 1979

7:30 p.m.

Rooms 15-17, Menlo Park Recreation Center, Civic Center

Alma at Mielke, Menlo Park

OPTICON--COMMUNICATIONS AID TO THE BLIND

by

Al Elge, AG6D

Al will describe and demonstrate the OPTICON--an optical to tactile converter, to enable the sightless to read, and a talking calculator that proofs as you punch the keys

CIRCLE THE DATE

FRIDAY

AUGUST 3, 1979

7:30 p.m.

Future Meetings: September 7, October 5, Auction/Flea Market
October 6 at AMPEX Cafeteria, November 2, December 7...

PAST CORNER: Gary, WB6VIF, gave an inspiring talk on the fun and challenge of contest operation at the July 6 meeting. He educated your editor on Field Day night. What he didn't stress that when ones eyes glass over at 3 a.m., ones ears don't. Photographs of typical contest stations showed stages of development--from simplicity to grand.

Earlier in the program visitors were introduced. Fred, K6YT, gave a report on overall F. D. activity after which each Team Captain praised their individual teams and the overall effort while Fred sat back looking even more satisfied than he looked this time last year.

Coffee, cookies and eyeball QSO's separated the business part of the meeting and Gary's presentation. The meeting concluded with a raffle that included items that anyone could use in their shack or tool box.

BOARD CORNER: The July 11 Board Meeting took place in the reinstalled trailer at SRI. The meeting started promptly at 0237Z. Since various members had visited the Post Office Box during the previous weeks, the first order of business was a flurry of paper transfer.

Fred, K6YT, supplied copies of Field Day results that were forwarded to ARRL to each Member. Bob, K6SEM, lauded Fred for his untiring efforts in the prosecution of F. D. activities. Fred gave credit to the Team Captains, Team Captains gave credit to their operators, the operators conceded the loggers were of value. All credited the Schoofs for the use of their property.

No credit was given those who brought food. Without it and the refreshments it would have been a dreary time.

Bob discussed logging problems and suggested a number of changes to be made next year to eliminate, or reduce the number of, duplicate contacts. A training session for loggers was suggested--also suggested was an instruction sheet for logging because of the "drop in" nature of loggers.

Examination of the Foothill ARC use of a computer to supplement checking for dupes brought envious comments but the F. D. Committee indicated it still liked people to check to eliminate duplicate contacts--if it is done correctly.

Fred suggested improper tuning of equipment in the "heat of battle" caused some local QRM but was gratified that the Novices

could work 15 meters while the "fast guys" worked 15 CW and Phone.

PAARAGraphs was given the assignment to publicize ARRL sponsored contests as a training program for next year.

And the meeting continued. The organization of the October 6 Auction/Flea Market; to designate the Menlo Park CD Radio Club as the Menlo Park Emergency Radio Club; to let Explorer Post 599 use K6YQT under the defacto trusteeship of Jim, K7UDC; to continue with the coax purchase investigation;

AND to have a Club picnic in October.

Save the two weekends after the Auction/Flea Market. A proper date and details will be available next month.

All the above in an hour and a half. The meeting was over shortly after 9, but beer and skittles for some lasted a little longer down the street and around the corner.

Next Board Meeting August 8—all are invited.

+ + +

FIELD DAY CORNER: Operating in the Four Transmitter Class using 200 watt DC input limitation powered by the Club emergency power generator, a total of 12032 points was amassed. Bonus points added another 550 for a total of 12582. The Field Day Committee feels it is a pretty good score.

A total of 23 persons were indicated as being active participants but a total of 48 names were recorded as overrunning the field during the 24 hour operating time.

The action began June 2 with field site preparation and hauling heavy items to the area. It continued June 9 with the erection of antenna structures. June 17 and 18 tied loose ends together and equipment was tested. June 23 and 24 were the days! June 30 found the site cleared of equipment and cleaned to the last pull-tab.

The breakdown of individual band operation shows:

Band	CW Contacts	Phone Contacts
80 meters	54	102
40	329	335
20	717	1315
15	465	721
10	0	31
2	0	43
OSCAR	5	5
Novice	162	

Bonus points were claimed for 100% emergency power (the generator didn't miss a beat), for publicity (of Menlo-Atherton Recorder fame), for message origination and for OSCAR communications.

Their names and calls are commonplace around the Club. Fred, K6YT, the chief honcho, and Team Captains Cam, K6RU, 40-15CW, Bob, K6SEM, 40-15-10 Phone, Bob, W1ARR, 80-20CW, Jim, K7UDG, 80-20-2 Phone and Svede, KA6BEU, 80-40-15CW Novice are the ones who did the lion's share of planning and organization.

But they couldn't do it all. Without Phone operators W6DU, WB6HYB, N6RY, N6IG, W6NIR, W6CPZ, WA6LNV, K6TNY and WB6BJB, and CW operators K6XO, N6YV, W6XX WB6VTF and KE6S the final score would have not been so impressive. Nor could they have done so well without the support of all those whose calls are not included above.

Some operators did more than their share while others contributed to the Club's best effort by not operating at all.

Bob, K6SEM, enthusiastically remarked, after reviewing the results, "It looks like this Field Day will put PAARA in with the 'big guys' in national competition."

Steve, K6FS, acted as the Club Photographer to record for posterity, Field Day, 1979.

FOXTAIL CORNER: For those who haven't found the secret: Foxtails must be removed from socks by pushing them through the way they entered and pulling them out from the inside.

EXPLORER CORNER: At the time this article was written, some two weeks after Field Day, I was just recovering from its effects. Seriously, Field Day was an experience which I am sure none of the Explorers will forget.

Congratulations to David Finkelstein, KA6DLI, and John Buonocore, KA6CUG. On June 27 David became a Technician and John became a General. This makes seven members with a radio license, six members still trying, and one member awaiting word from the Federal Communications commission.

On behalf of the entire Explorer Post, I

CUT AND PASTE CORNER: Please add the following New Members to your April Roster:

John Hornback	KA6FYX	1474 Marlborough Av., Los Altos	94022	961 1991
Hike McNamee	KE6S	3833 Park Blvd., Apt. 12, Palo Alto	94306	493 2258
Russel Rockett		1335 Greenwood Av., Palo Alto	94301	326 6449

and correct:

Jerry Hogsett, Jr	KA6FYW	1446 Wildrose Wy., Mountain View	94043	967 1650
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would like to welcome our newest member. His name is Russel Rockett and he resides at 1335 Greenwood Avenue in Palo Alto. His telephone number is 326 6449. Although our meeting place sometimes gets a bit crowded a new face is always welcome.

Since the Post Treasury is being depleted faster than it is being built up, we are planning a MONOPOLY^(R) Tournament for sometime in August. It is hoped that this will help to rebuild the bank account.

Another event planned for August is the Post trip to the Flagstaff (Arizona) Hamfest on the fourth and fifth. No details on either event are available at this time.

As a closing note, I would like to say that Jerry Hogsett Jr. has the call KA6FYW. His call is not KA6EYU, as stated in July 6 volume of PAMGraphs. Remember his call by the phonics "Kiss All 6 Fine Young Women"

" 73, Jim O'Neil

UNLICENSED CORNER: Bob Gallagher is not long for this column. His examination was received a few days before publication date but sits on the examiner's desk pending a quiet period in Bob's work and a gallon of gas to get him to and from the examiner.

NOVICE CORNER: The Novice operators did a spectacular job at F. D. in spite of being off the air for three hours because of a pecking order of frequency operating priorities set up by something other than their peers.

Dave Daniel became KA6GZG July 17 and made his first contact on 15 meters on the 18th after putting his station together. He has a Halicrafters combo that is neat as a pin, a station for which he advertised in PAMGraphs last month. Quick work.

Svede, KA6BEU, sent off to ARRL for his WAS-15 meter certificate and within a day or so more than a week later had it framed and on the wall! There are, for some, pitfalls along the route. If paper work bothers you he has it all down pat and can give you some pointers. Collecting the cards takes persistence.

DAVID SHAVER
K6DTX

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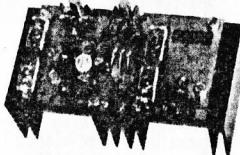
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XV2-3	28-30	222-224
XV2-4	28-30	144-146
XV2-5	28-29	145-146
XV2-6	26-28	144-146

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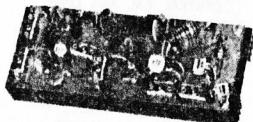
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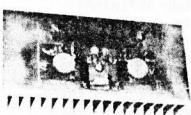
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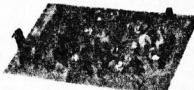
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C145	145-147	28-30
C146	146-148	28-30
C110	Aircraft	26-30
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C222	222-224	28-30
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C432-5	435-437	28-30
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C432-9	439-.25	61.25
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**- 6 - Northern Amateur Relay Council
of California**

INPUT	OUTPUT	SANCT	LOCATION	CALL	COVERAGE	REF	OP/CL	ACCESS	SPONSOR	METER SIMPLE
144.51	145.11	408	SAN PABLO RIDGE	WR6EZC	SF BAY	OP	C	CONTRA COSTA COMM. CLUB		
144.53	145.13	363	MEADOW LAKES	WA6JXD/RPT	SJ VALLEY	OP	C	WA6JXD/WB6TIA	GENERAL	
		556	UKIAH	WA6WTT/RPT	MENDOCINO CNTY	A	OP	C	WA6WTT	146.43 MHz
144.55	145.15	362	SAN FRANCISCO	WB6P/RPT	SF BAY	OP	C	SF RACES	146.55 MHz	
144.57	145.17	553	MANTECA	WB6MFV/RPT	DELTA	OP	C	WB6MFV	147.42 MHz	
144.59	145.19	361	PALO ALTO	WR6BAK	SF BAY	OP	C	K61HM	147.45 MHz	
144.61	145.21	360	ALTAMONT PASS	WA6SEK/RPT	SF BAY, SJ VALLEY	OP	C	WA6SEK	NORTHERN CALIF	
144.63	145.23	359	PALO ALTO	WR6AIS	SF BAY	OP	C	SPARK		
144.65	145.25		MT. DIABLO	WR6AXG	SF BAY, SJ VALLEY	OP	C	WB6IHD		
144.67	145.27	371	AUBURN	WR6AHG	SAC VALLEY	OP	C	PLACER CO. SHERIFF	REMOTE BASE:	
144.69	145.29	358	GRIZZLEY PEAK	WR6ANC	SF BAY, SAC VALLEY	OP	C	WA6TX	146.46 MHz	
144.71	145.31									147.45 MHz
144.73	145.33	357	MT. SAN BRUNO	WR2AAA	SF BAY	OP	C	WA6TYB		
144.75	145.35	356	PLEASANTON	WR6BAW	PLEASANTON	OP	C	PLEASANTON RACES		
144.77	145.37	355	BELMONT	WR6BCK	SF BAY	OP	C	BELMONT ARC		
144.79	145.39	409	BLACK BUTTE	WD6EJF/RPT	SJ VALLEY	OP	C	SARA		
144.81	145.41	353	MT. DIABLO	WR6ADC	SJ VALLEY, SF BAY	OP	C	ADC ASSOCIATES	CALLING:	
144.83	145.43	352	AUBURN	WR6A01	SAC VALLEY	OP	C	SIERRA FOOTHILLS ARC	146.52 MHz	
144.85	145.45									147.54 MHz
144.87	145.47	350	FREMONT PEAK	WR6AZO	CENTRAL CALIF(COAST)	OP	C	FREMONT PK. RPTR ASSOC.		
144.89	145.49	557	MT. BEACON	WB6OVV/RPT	SF BAY	OP	C	WB6OVV	NON-VOICE:	
146.01	146.61	482	CARPENTER RIDGE	WR6ACW	SAC VALLEY	OP	C	SHARP		
		002	MEADOW LAKES	WR6AFA	SJ VALLEY	OP	C	WA6SM	146.58 MHz	
		290	OIPHIR PEAK	W7TA/RPT	REMO/TAHOE	OP	C	SIERRA NEVADA ARS		
		412	SILVER PEAK	WR6AAF	E. CENTRAL CALIF	OP	C	GRONK RADIO NET		
			MARIN	WR6AGG	SF BAY	OP	C	EIMAC RADIO CLUB		
			SAN CARLOS	WR6APK	SF BAY	OP	C	SIERRA Foothills ARC		
146.025	146.625	271	SUNSET WHITNEY	WR6AQM	SAC VALLEY	OP	C	SUNSET WHITNEY RC		
146.04	146.64	003	LOMA PRIETA	WR6ARD	SF BAY	OP	C	PIONEER RC OF SAN JOSE		
		004	CLEAR LAKE	WR6AJC	LAKE COUNTY	OP	C	W6CPK		
		238	REDDING	WR6AGY	N. SAC VALLEY	OP	C	TIN CUP RPTR GROUP		
		413	BISHOP	WR6AQJ	E. CENTRAL CALIF	OP	C	GRONK RADIO NET		
		239	MT. PLUTO	WR6AUN	CENTRAL SIERRAS	OP	C	PLACER CO. SHERIFF		
146.07	146.67	005	SHINGLE SPRINGS	WR6ABK	SAC VALLEY	CL	C	SHINGLE SPRINGS NET		
		006	MT. SAN BRUNO	WR6AKD	SF BAY	CL	C	BAKERSFIELD RPTR SOC.		
		007	MT. ADELAIDE	WR6AQO	SJ VALLEY	OP	C	W6WTT		
		508	UKIAH	WA6WTT/RPT	UKIAH	OP	C	SATELLITE ARC		
146.10	146.70	008	MT. LOPSE	WR6ASW	SANTA MARIA	OP	C	AMATEUR COMM. SOC.		
		008	MT. TAMALPIAS	WR6ACS	SF BAY, SAC VALLEY	OP	RTTY	CCATS		
		245	GEAR MTN.	WR6BAD	SJ VALLEY	OP	C	W6ICB		
		411	FIEKLE HILL	WA6ICB/RPT	EUREKA	OP	C	SONOMA CO. ARS		
146.13	146.73	009	SOMONA MTN.	WR6AES	N. SF BAY	OP	C	WA6MMN		
		555	BEAR MT.	WB6FKZ/RPT	SJ VALLEY	OP	C	CAL POLY ARC		
146.16	146.76	011	SAN LUIS OBISPO	WR6ADS	CENTRAL COAST	OP	C	W6QWN		
		012	REDDING	WR6AFZ	N. SAC VALLEY	OP	C	FAR WEST RPTR ASSOC.		
		013	MT. PIERCE	WR6AGT	EUREKA	A	OP	ROCKY HILL RPTR ASSOC.		
		014	ROCKY HILL	WA6GRUN/RPT	SJ VALLEY	OP	C	SANTA CLARA VLY RPTR		
		015	MC CLELLAN PEAK	WR7ABN	RENO	OP	C	SILVER CIRCLE ARS		
146.19	146.79	016	SAN FRANCISCO	WR6ACI	SF BAY	OP	C	GS LADD PIONEER ARC		
		017	SACRAMENTO	WR6ADU	SACRAMENTO	OP	C	RAMS, INC.		
		018	YREKA	WR6AII	N. CENTRAL CALIF	OP	C	SISKIYOU CO. RACES		
		240	MEADOW LAKES	WR6AFS	SJ VALLEY	A	OP	CENTRAL CAL AMA COMM.		
		241	SANTA CRUZ	WR6AJB	MONTEREY	OP	C	TREE & SEA RPTR ASSOC.		
			RENO	WR7AHQ	RENO	OP	C	NEVADA UHF EXPER. SOC.		
146.22	146.82	019	GRIZZLEY PEAK	WR6ABM	SF BAY, SAC VALLEY	OP	C	GRIZZLEY PK VHF ARC		
		020	CUESTA PEAK	WR6AEL	CENTRAL COAST	OP	C	CENTRAL COAST ARC		
		242	DUNSMUIR	WR6AKQ	N. SAC VALLEY	OP	C	SISKIYOU CO. RACES		
		021	FRESNO	WR6BBX	FRESNO	OP	C	REPEATER ASSOCIATES		
		415	CRESCENT CITY	WR6ANH	CRESCENT CITY	OP	C	FAR WEST RPTR ASSOC.		
		416	BALD HILL	WA6FBL/RPT	FT. BRAGG	OP	C	MENDOCINO COAST AMA		
146.235	146.825		MEADOW LAKES	WR6AFH	SJ VALLEY	OP	C	WA6OIB		
146.25	146.85	495	MT. SAN BRUNO	WR6BBQ	SF BAY	OP	C	GORILLA RADIO CLUB		
		554	MT. STEVENSON	K6GX/RPT	SJ VALLEY	OP	C	K6GX		
		023	FORREST RANCH	WR6AJE	N. SAC VALLEY	OP	C	GOLDEN EMPIRE ARS		
		402	HEAVENLY VALLEY	WR7AKI	CENTRAL SIERRAS	A	OP	TARA		
146.28	146.88	024	MT. OSO	WR6ACV	SJ VALLEY, SAC VALLEY	OP	C	CENTRAL VLY VHF FM CLB		
		025	ROUND TOP	WR6AFP	SF BAY	OP	C	VHF RPTRS, INC.		
		026	BLUE RIDGE MTN.	WA6YLB/RPT	S. SJ VALLEY	OP	C	TULARE CO. ARC, INC.		
		243	EUREKA	WR6ALP	EUREKA	OP	C	REDWOOD REPEATERS		
		255	MT. HAMILTON	WR6ALW	LASSEN CO.	OP	C	LASSEN ARC		
		325	WILLIAMS HILL	WR6AWH	CENTRAL COAST	OP	C	WILLIAMS HILL ARS		
		505	Sanel Mt.	WR6AQG	UKIAH	OP	C			
146.295	146.895		PEASANT HILL	K6IH/RPT	CONTRA COSTA CO.	A	OP	K6IH		
146.31	146.91	028	SONOMA MTN.	WR6AFY	SF BAY	OP	B2100	SONOMA MTN RPTR SOC.		
		417	MT. ST. HELENA	WR6AEQ	SF BAY, SAC VALLEY	OP	B1950	SONOMA MTN RPTR SOC.		
		418	MT. JACKSON	WR6AXV	SF BAY	OP	B1800	SONOMA MTN RPTR SOC.		
		027	MT. MC KITTRICK	WR6ACE	S. SJ VALLEY	OP	C	CENTRAL VLY RC, INC.		
		029	SACRAMENTO	WR6AEN	SACRAMENTO	OP	C	AMATEUR EMERGENCY NET		

2 METERS CONTINUED

- 7 -

	INPUT	OUTPUT	SANCT	LOCATION	CALL	COVERAGE	REF	OP/CL	ACCESS	SPONSOR
CHANNELS:	146.325	146.325		ROUND TOP	WR6BBO	SF BAY	A	OP	C	SMART
	146.34	146.34	246	COHASSET	WR6AMA	N. SAC VALLEY		OP	B1950	COHASSET AMA RPTR ASSOC
			247	MEADOW LAKES	WJ6QCU	SJ VALLEY		OP	C	FRESNO ARC, INC.
			264	MT. PRATT	WR6AGU	N. COAST		OP	C	FAP WEST REPEATERS
17.48 MHz			289	ALTURAS	WR7A1K/6	ALTRAS		OP	C	
7.51 MHz			291	SOLOMON PEAK	WR6ASW	SANTA MARIA		OP	C	W6KPS
7.60 MHz			419	CONWAY SUMMIT	WR6IZH	E. CENTRAL CALIF		OP	C	MONO CO. ARA
			420	ROUND TOP	W6JKA/RPT	SF BAY		OP	C	CALCOM SYSTEMS, INC.
			421	BISHOP	WR6ACG	E. CENTRAL CALIF		OP	C	GRONK RADIO NET
ORNIA ONLY			DONNER BEACON		WR6AST	CENTRAL SIERRAS		OP	C	PLACER CO. SHERIFF
	146.37	146.37	030	BERRYESSA PEAK	WR6ABX	SF BAY, SAC VALLEY		OP	C/PL	BERRYESSA ARC
			031	MONTEREY	WR6AEZ	MONTEREY	A	OP	WI336	NAVAL POSTGRAD ARC
AIRBORNE:			265	ROCKY HILL	WR6AHS	S. SJ VALLEY		OP	C	ROCKY HILL RPTR ASSOC.
147.57 MHz	146.40	147.00	033	MT. VACA	WR6AGO	SF BAY, SAC VALLEY		OP	C	MT. VACA RADIO CLUB
	146.715	146.115	423	SACRAMENTO HILL	W6GSO/RPT	PLACERVILLE		OP	C	EL DORADO CO. ARC
	146.745	146.145	425	AUBURN	WA6ZNM	SAC VALLEY		OP	C	J. SAWYER
	146.775	146.175								
	146.955	146.355		MT. DIABLO	WR6AYR	CONTRA COSTA		OP	C	NORTHGATE RPTR ASSOC.
	147.015	147.615	481	STATELINE	WR6AXA	LAKE TAHOE	A	OP	C	WB6VLK
			327	LAFAYETTE	WR6AUL	CONTRA COSTA	A	OP	C/PL	CONTRA COSTA RPTR ASSOC
	147.135	147.735		GRAM PEAK	K6PSJ/RPT	SJ VALLEY	A	OP	C	MT. OSO RADIO ENGRS.
OFF ROAD:	147.345	147.945	422	MT. BULLION	WR6ALG	SJ VALLEY		OP	C	TARC
146.49 MHz	147.63	147.03	034	ROUND MTN.	WR6AJZ	S. SJ VALLEY	A	OP	C	KERN CO. AUTOPATCH
			244	RED HILL	WR6AEV	SF BAY	A	OP	C/PL	AMCOM REPEATER
			328	HAYWARD	WR6AJY	SF BAY		OP	C/PL	AMCOM REPEATER
	147.66	147.06	036	GUALALA	K6PB/RPT	N. COAST		OP	C	REDWOOD COAST ARC
			036	ALAMO	WR6AHK	SF BAY, SAC VALLEY A		OP	C	ROCKY RIDGE RPTR GROUP
	147.69	147.09	037	MT. DIABLO	K6POU/RPT	SF BAY, SAC VALLEY		OP	C	MT. DIABLO RPTR ASSOC.
			327	BELMONT	WR6ABY	SF BAY		OP	C	WB6CKT
			257	PIONEER	WR6AO5	SJ VALLEY, SAC VALLEY		OP	C	WB6GIRL
			375	MT. PATRICIA	K6KZT/RPT	CENTRAL COAST		OP	B/1200	K6KZI
	147.705	147.105	038	SAN FRANCISCO	WR6AHE	SF BAY	A	OP	B/1600	K6TW
			426	FRESNO	WR6AXH	FRESNO		OP	C/RTTY	WB6OWE
	147.72	147.12	039	GRASS VALLEY	WR6AKL	SAC VALLEY		OP	C	NEVADA CO. ARC
			040	LIVERMORE	WR6AHP	LIVERMORE	A	OP	C/PL100	LIVERMORE AR KLUB
			266	BEN LOHAND	WR6AOK	SANTA CRUZ		OP	C	SAN LORENZO VLY RPT CL.
			477	BAKERSFIELD	WR6BBK	BAKERSFIELD		OP	C	BAKERSFIELD RPTR SOC.
			428	HARRIS GRADE	WR6AVI	CENTRAL COAST	A	OP	C	W6EIR
	147.75	147.15	041	MT. UNURNHUM	WR6BKH	SF BAY	A	CL	C/PL	8AYCOM
			429	MERCER MTN.	WR6ARP	SJ VALLEY		OP	C	K6AHQ
	147.765	147.165	042	MT. ZION	WR6ALK	SJ VALLEY, SAC VALLEY		OP	C/HF	STOCKTON RC
	147.78	147.18	043	MT. ST. HELENA	WR6AFU	SF BAY, SAC VALLEY		OP	C/PL/B1800	MT. ST. HELENA ARS
			322	DEADWOOD PEAK	WR6AQO	SJ VALLEY		OP	C	MADERA ARC
				VIRGINIA PEAK	WR7ACW	REED, CALIFORNIA CITY		OP	C	WASHO CO. RPTR
			517	BLACKHORN HILL	K6GZU/RPT	YREKA		OP	C	
	147.795	147.195	044	MT. UMUNHUM	WR6AMT	SF BAY	A	CL	PL	COMEX PARK RPTR ASSOC.
	147.81	147.21	045	OAKLAND	WR6ABF	SF BAY	A	OP	C/B2400	PACIFIC SERVICES RC
			378	KINGSBURY VILLAGE	WR7ANW	LAKE TAHOE		OP	C	WA7YFW
			430	SANTA MARIA	WR6AHZ	SANTA MARIA	A	OP	C	SATELLITE ARC
	147.84	147.24	348	SAN LEANDRO	WR6ADM	SF BAY		OP	C	N. CAL CONTEST CLUB
			431	SILVER PEAK	WR6AOH	E. CENTRAL CALIF.		OP	C	WA6MR
			516	HEAVENLY VALLEY	W7EJK/RPT	CENTRAL SIERRAS		OP	C	TARA
	147.855	147.255	323	MT. BULLION	WR6AUH	SJ VALLEY	A	OP	C	WB6INM
				SAN JOSE	WR6AVB	SF BAY		OP	C	WB6BJW/WR6MR
	147.87	147.27	047	MT. VACA	WR6AEI	SF BAY, SAC VALLEY		OP	C	SOCIETY OF AMA RPTR OP
			434	JUNE LAKE	WR6AEY	E. CENTRAL CALIF		OP	C	MONO CO. ARC
	147.90	147.30	274	SAN MATEO	WR6AME	SF BAY		OP	C/T	SUBMARINE
			274	BURLINGAME HILLS	WR6ADR	SF BAY		OP	PL/100	SUBMARINE
			274	MT. SAN BRUNO	WR6AIIK	SF BAY		OP	C	SUBMARINE
			049	SACRAMENTO	WR6AGK	SACRAMENTO		OP	C	J.I. SABIN PIONEER RC
			273	CHICO	WR6ARA	CHICO		OP	C	J.I. SABIN PIONEER RC
	147.93	147.33	050	MARIN	WR6ACR	SF BAY		OP	RTTY	AMATEUR COMM. SOCIETY
			432	JOAQUIN RIDGE	W6IYY/RPT	SJ VALLEY	A	OP	C	SEQUOIA TELE PIONEERS
			511	WILLETT	WD6BX/RPT	JELLETO		OP	C	WB6FGX
	147.96	147.36	051	LOS ALTOS HILLS	WR6ACZ	SF BAY		CL	C	N. CALIF. DX CLUB
			433	VISALIA	WR6ASK	VISALIA		OP	C	WA6BLB
				RENO	WR7AJH	RENO	A	OP	C	W7FDZ
	147.97	147.37		REDDING	WB6NPN/RPT	REDDING	A	CL	C	WB6NPN
	147.99	147.39	052	SACRAMENTO	WR6AQZ	SACRAMENTO	A	CL	C/PL	STAR
			053	PARADISE	WR6ACH	N. SAC VALLEY		CL	C	W6CE
			054	LOS GATOS HILLS	WR6ADX	SF BAY	A	CL	C	LOS CUMBRES APC
			268	BALD MTN.	WR6AJD	SJ VALLEY	A	CL	C/PL	REPEATER ASSOCIATES

REF LEGEND:

OP/CL LEGEND:

ACCESS LEGEND:

SANCTION LEGEND:

"A" - AUTOPATCH
"L" - LINKED"OP" - OPEN REPEATER
"CL" - CLOSED REPEATER"C" - CARRIER ACCESS
"PL" - SUBAUDIBLE"000" - NARC SANCTION NO.
"Pend" - SANCTION APPLIED FOR
" " - NOTHING PENDING"B" - BURST TONE
"RTTY" - TELETYPE
"W" - WHISTLE ON
"T" - TOUCHTONE

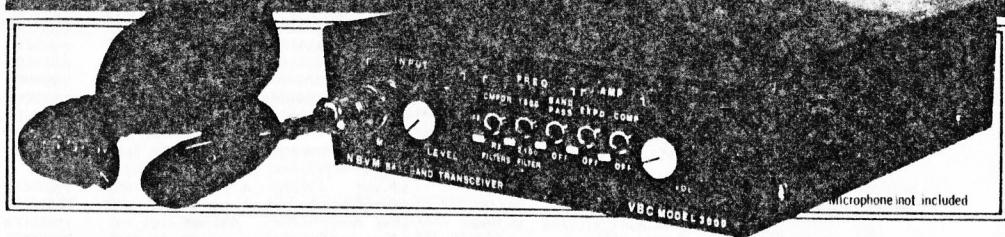
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Historically, Amateur Radio operators have made important contributions to the art and science of communications. Once again Amateur Radio assumes leadership in advanced communications technology. You have the privilege of being one of the first to include a Narrow Band Voice Modulation (NBVM) system in your station. The VBC Model 3000 is the system that you have been hearing about for a year and have read about recently in QST and the 1979 ARRL Handbook. It is the world's first such system.

The VBC Model 3000 provides full audio level compression and expansion... complete intelligibility in only 1300 Hz bandwidth. It permits you to take full advantage of other stations' RF speech clippers and processors... similar to the amplitude compression and expansion used for many years in telephone and satellite communications.

The Model 3000 is for mobile and fixed station use and requires no modifications to your existing equipment. It is completely self contained, including its own audio amplifier. The unit automatically switches into transmit mode when microphone is keyed or voice operation is used. It connects just after the microphone on transmit and just prior to the speaker on receive. In addition to its basic

function of operating in a narrow bandwidth, the Model 3000 also increases the performance of your station in the following ways:

- Reduces adjacent channel interference
- Increases signal to noise ratio
- Increases communications range

Some of its outstanding features include:

- High quality narrow band speech
- Self contained transmit/receive adapter
- Built in audio amplifier
- 5 active filters with a total of 52 poles
- Rugged dependable hybrid IC technology
- Low power consumption

Receive only features, such as sharp voice and CW filtering and amplitude expansion, provide improved reception without requiring a unit at the transmitting station.

For the more advanced experimenter the Model 3000 is available in a circuit board configuration for building into your present transceiver.

Henry Radio is ready to offer technical assistance and advice on the use and servicing of the Model 3000 and will help introduce new owners to others operating NBVM units. Get in on the ground floor... order yours now.

Price: VBC Model 3000 \$349.00

Circuit board configuration \$275.00

For more detailed information please call or write. The Model 3000 will be available from most Tempo dealers throughout the U.S. and abroad.

TECHNICIAN CORNER: Listed elsewhere is David Finkelstein, KA6DLL, who upgraded with the Explorer Expeditionary Force June 27. You have the hard part toward your General Class Ticket done, David.

GENERAL CORNER: Congratulations to John, KA6CUG, for his upgrade, also on the 27th. We're glad you waited until after Field Day!

ADVANCED CORNER: Sometimes things happen fast. John, KA6EMX, upgraded from General, which was reported last month. John got his baptism operating 20 and 80 meters Field Day.

EXTRA CORNER: It's extra this month.

* * *

Ni-Cd CORNER REVISITED: Because of the increased use of Ni-Cds's for 2 meter work, this supplements earlier PAARAGraphs articles on the cells. It was pirated from the CARRIER, published monthly by the Mount Diablo Amateur Radio Club. Your editor tried the reverse polarity treatment on one of his 4 AH cells and it did the trick. He can't wait to get a shorted cell to see if he can cure it. Wanna bet?

Ni-Cad Battery Rejuvenator

I recently made a purchase from Quest Electronics in San Jose. They had a Ni-Cad Battery Rejuvenator Kit available and being a Wilson owner with approximately 10 shorted or dead AA Ni-Cds laying around I purchased the kit.

This kit will ZAP/CHARGE all AA, A, C, or D size Ni-Cds of 1.2 volts DC capacity. Most cell failures are the result of neglect or improper operation. To prevent Ni-Cad failure exercise the cells every 30 days. Run them until they are unable to provide enough voltage to function, then fully recharge them. Never leave them turned on beyond the point where the voltage is insufficient to operate the device in which they are used.

Ni-Cds generally fail in one of four ways:

1. Develop a short.
2. Reverse polarity.
3. Develop a memory.
4. Die completely.

The first three are generally reversible. A short can be checked with a Volt-Ohm meter. If the cell shows zero volts, try measuring its resistance. A short will show near zero ohms resistance in either polarity. A cell will often reverse its polarity. This can be seen easily with a voltmeter. The memory problem is less common and harder to detect. The symptoms are reduced capacity (shortened run life) and moderately decreased load voltage when fully charged.

The rejuvenator is made up of a high wat-

tage resistor, a computer grade electrolytic capacitor, four diodes, one push button switch, one SPST switch and one transformer. The purchaser must supply his own Mini-Box and, if desired, a DC meter.

The charger will provide 75 to 100 milliamperes of charging current. This value is safe for most cells of 1.2 volts capacity. Charge time will be about five hours. The procedure for repairing shorts and memory problems is as follows. The battery is inserted in the rejuvenator and is plugged in. The Zap button is pushed and held for about one minute. This impresses approximately 32 volts across the battery. Wait about 1 minute and push the Zap button again. With the Zap button depressed read the voltmeter. If no voltage is indicated keep zapping the battery until you can see some voltage from the cell. Continue zapping to get a higher voltage each time the zap is done. You can hold the Zap switch down for a few seconds each time after the voltage reaches one volt before trying another zap. When the cell voltage reaches 1.2 volts, watch the voltmeter when the zap switch is released. If the voltage sinks rapidly you still have a short so keep zapping. When the cell will stay up at about 1.2 volts you may place the rejuvenator in the charge position and charge the cell. It may take 20 to 30 zaps to reach this point. If you cannot get the voltage to stay above 1 volt, the cell is dead.

Reverse polarity cells must have their polarity corrected first. Hook the negative end to the positive end with a short length of wire for 1 to 2 minutes. Now check the polarity again. If it is still reversed try twice again and then proceed with the rejuvenation process.

Memory problems just need their memory changed. Short out this cell through a flashlight bulb until the bulb just goes out. Then completely recharge the cell. This may have to be done more than once.

I have had 10 bad Ni-Cds in my shack. So far I have been able to cure and charge 8 out of the 10. They have held their full charge for 1 week so far where before they would not hold their charge for more than a few hours. I am still working on the remaining two.

The Rejuvenator is available through:
Quest Electronics, PO Box 4430M
Santa Clara, CA 95054. Phone 988 1640
The price is 7.25 plus tax.
Jay D. Caldus, WB6PUA.

TECHNICAL TOPICS CORNER: Ed, W6AIN, passes the following hints regarding the feeding of your antenna: "When attaching a coax feed line to an antenna, directions say to have the coax extend at right angles (1/4 wavelength, ed) for a distance from where it attaches to the antenna. This is to preclude induced currents on the coax braid from affecting the antenna characteristics. If the coax does not come off at right angles, the prevention to induced currents is to have 8 to 10 turns of coax 6" in diameter to serve as a choke. Install the choke at the antenna. (ref: QST, May, 1979. pg. 35)"

Ed recommends QST, Feb. 1979, pg. 15 for those who want to know more about baluns. And if anyone has a source (local) of torroids for baluns, it might be worth a mention in PAARAGraphs.

Ed would like to see a "Technical Topics" published from time to time to be submitted by PAARA members and readers of PAARAGraphs. We have some but your editor would like more.

* * *

CONTEST CORNER: From July, 1979 QST, pg 88:

August 4-5: UHF Contest

Illinois QSO Party

YO DX Contest

11-12: WAE, cw

18-19: SEANET, phone

SARTG RTTY

25-26: All Asia, cw

Maybe one of the contestants will fill us in on what to look for the weekend following the August 3 meeting. Lacking that, give a listen and find out. August 25 and 26 sound particularly interesting. Meet the challenge! Work a JA! If you hear a AC3 or A51, give the DX hounds a call.

CORRESPONDENT'S CORNER: Hal Moore, W6DFF, Delta Echo Foxtrot, (don't confuse phonics for D and V) writes from Auburn that he is a member of the Sierra-foothill Amateur Radio Club which meets the second Thursday of each month at the Bowman School near Auburn. The club has a net using WR6ADI on Thursdays other than meeting nights. 15 or so check in on the net; 30 or more at the meetings.

Hal reports that he is on the air on 3630 kHz with the Northern California Net almost every evening at 1900 and 2030P and also on the NCH VHF session using WR6ADC at 144.81-145.41, 1930P daily. Always a traffic pusher, Hal suggests that anyone afraid to enter their own traffic in the NCH can do so through Larry, K6KZJ, phone 593 9150.

UNCLASSIFIED CORNER: PAARAGraphs will enter items for sale, trade or swap by members of PAARA and by other interested "operator'd" as space permits.

HOLDING THE BAG. Someone left your editor with a folder of schematics for a Mobile/Base Station transmitter and receiver numbered 7484520-G1 transmitter and 7484500-G1 receiver to enter in PAARAGraphs for sale. If you would like the specification sheets, they are available. If you have the rig, let it be known at the next meeting. If you want the rig, ask who has it. As I understood it, midst quaffing coffee and munching on cookies, the rig can be had for something less than part of your lowerleft leg.

FOR SALE: Heathkit HW 16. Good Novice rig. Excellent condition with manual, \$100. and,

Realistic DX 160 Communications Receiver with manual. Mint condition—like new. Thinking of \$120 but call with your best offer.

See John, KA6CUG, at the meeting or call 366 1658

FOR SALE: 60 foot Rohn 25G tower with insulated base and heavy duty thrust bearing. CDE Ham II Rotator and control unit plus an 8 ft mast of 2" o.d. x 1/4" wall aluminum. Hygain 204BA 4 element monoband Yagi with Higain BN 86 balun, coax, control and insulated guy cables and turnbuckles.

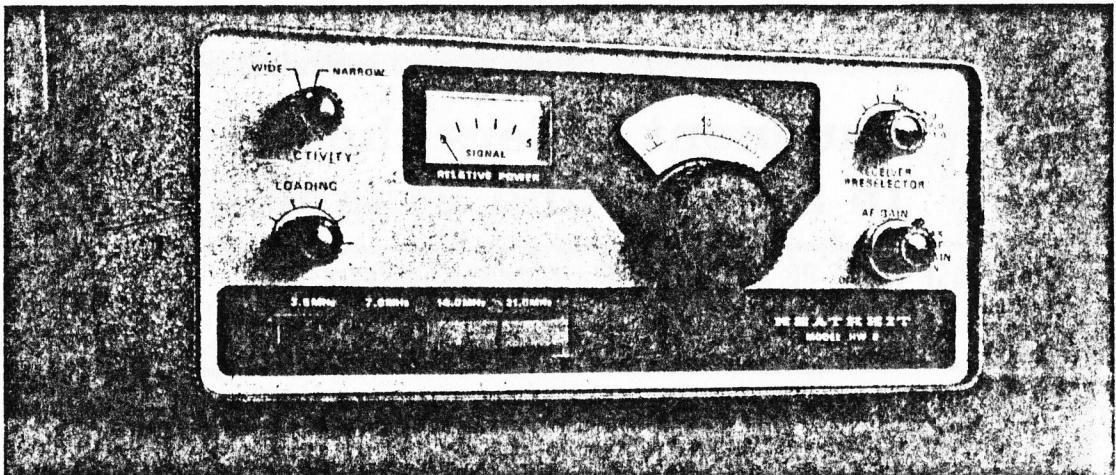
Asking \$420 and prefer not to sell piecemeal. See Tiff at the meeting August 3 or, if you have to have it, call him at home, 324 4524, or at work 326 6200 ext. 4005.

INFORMATION: For those on 2-meters, a swap shop has been initiated (7/17) by Eric, W6DU and Bob, K6SEM, on 147.45MHz on the Monday evening PAARAnet. 8:30 p.m. Items will be reentered until withdrawn by a sale, swap or disinterest.

FLEA MARKET. Foothill ARC, September 8, Foothill College, Electronic Museum Parking Lot, 8:00 a.m.

PAARA AUCTION/FLEA MARKET, Saturday, October 6, 1979. Ampex Cafeteria. Save your gear for auction, enjoy the crowd, drink the coffee, eat the doughnuts, eat your heart out for what you didn't get. Raffle prizes! Fun!

Editor's Corner: Writ with surprising ease (it probably reads like a dog) whilst thinking of nothing but PAARAGraphs



HW-8--It works the world on a couple of watts!

\$139.95

- 0.2 μ V gives you readable signals
- 4 Band CW Operation
- Front panel Relative Power Meter

When was the last time you worked the coast, snagged YV or exchanged reports with a DJ6...all with just three watts in? If you've never tried it, you're in for some real excitement and challenge. It takes a good rig though, one with excellent performance and specifications, and probably the best QRP rig going is Heath's HW-8.

Look at the receiver. As little as 0.2 microvolts in at the antenna terminal gives you a readable signal. Hum and microphonics are minimal. Couple that with a tunable preselector, direct conversion with RF amplification, a balanced product detector followed by active audio processing, and you've got a hot little receiver that's going to dig in and dig out the stations you're chasing!

The transmit section's the same story...performance! You'll get a minimum of 3.5 watts in 80 through 20 and 2.5 in 15. Each band is individually selected and crystal controlled heterodyne circuitry insures accurate frequency mixing. The HW-8's VFO features an MPF-105 FET in a temperature compensated Hartley configuration. This design approach provides overall stability and covers the unit's 3.5-3.75; 7.0-7.25; 14.0-14.25; and 21.0-21.25 MHz operating ranges with excellent accuracy.

Operating convenience wasn't forgotten either. The HW-8 features an RF and AF gain control, solid state band switching and semi break-in CW operation including adjustable T/R delay. Operate your HW-8 from its optional AC supply or take it to the mountain top and run on batteries.

The HW-8 is an easy and enjoyable kit to build, too, most parts mount on a single printed circuit board, and there's minimum point to point wiring. Now's the time to get into the fun and excitement of low-power CW operation. Order your HW-8 today!

Kit HW-8, Shpg. wt. 6 lbs. 139.95

Kit HWA-7-1, AC Power Supply. Operates your HW-8 from standard 117 VAC house current. Ideal for fixed station use. Shpg. wt. 4 lbs. 19.95

HW-8 SPECIFICATIONS: TRANSMITTER — DC Power Input: 3.5 watts (80 M); 3.0 watts (40 M); 3.0 watts (20 M); 2.5 watts (15 M). Frequency Control: built-in VFO. Frequency Stability: Less than 150 Hz/hour drift after 60 minute warm-up. Output Impedance: 50 Ω , unbalanced. Spurious & Harmonic Levels: -35 dB or better. Offset Frequency: approx. -750 Hz, fixed on all bands. RECEIVER — Sensitivity: 0.2 μ V for readable signal; 1 μ V or less for 10 dB S+N/H. Selectivity: wide, -750 Hz @ -6 dB narrow, -375 Hz @ -6 dB. Audio Output Impedance: 1000 Ω , nominal. GENERAL — Frequency Coverage: 3.5-3.75 (80 M); 7-7.25 (40 M); 14-14.25 (20 M); 21-21.25 MHz (15 M). Frequency Stability: less than 100 Hz/hour drift after 30 min. warmup. Power Requirements: 12-15 VDC, 90 mA, receive; 430 mA, transmit. Dimensions: 9 $\frac{1}{4}$ " x 8 $\frac{1}{4}$ " x 4 $\frac{1}{4}$ ". Net Weight: 4 lbs.

NEW

This new Amateur Radio Program will help you earn your General Class License

- Effective self-instruction program
- Money back guarantee

Don't wait another day to prepare for and pass the FCC General Class Amateur Radio License exam. This program's extra code practice takes you to 15 words per minute code speed (13 WPM is passing). An informative text takes you through exam material step-by-programmed-step. You even take a simulated FCC exam. Besides text and two code practice cassettes, you receive a code practice workbook, a 31" x 41" Amateur Radio world map, a booklet on preventing radio/TV interference, a station log book, a set of FCC Amateur Radio rules and regs, the FCC Form 610 required to apply for your license and an FCC schedule of when and where exams are held. If, after completing the program, you fail to pass the FCC Amateur Radio General Class License exam, Heath Co. will refund your money for the text materials.

ER-3702, Shpg. wt. 26 lbs. 49.95

NEW

New! State-of-the-art Heathkit HX-1681 (QSK) CW Transmitter

CW performance you can count on for QSO after enjoyable QSO

- Full break-in CW operation (QSK)
- Built-in VFO
- Covers 80 through 10 CW
- Rugged 6146 finals

Cut through the ORM with the HX-1681's combination of solid-state technology and vacuum tube finals. This CW transmitter is loaded with the features that Heath engineering is famous for. It's a perfect match for the HR-1680 receiver. You get full-break-in operation and built-in solid state TR switching. Plus a side-tone output with adjustable tone arm level and receiver muting. We've even provided keying for easy addition of an external power amplifier. Operation is easy, too. A clean front panel puts everything at your fingertips. Plenty of power out. A pair of rugged 6146s give the HX-1681 a minimum of 100 watts out on 80 through 15 meters and 75 out up on 10. Requires Heathkit Model HP-23C power supply.

Kit HX-1681, Shpg. wt. 16 lbs. 219.95



HX-1681 SPECIFICATIONS: Frequency Coverage (MHz): 3.5-4.0, 7.0-7.5, 14.0-14.5, 21.0-21.5, 28.0-28.5. RF Power Output: 100 watts min. 80-15 meters, 75 watts min. on 10 meters. Mode of Operation: CW. Harmonic Radiation: 50 dB down at rated output. Spurious Radiation: 60 dB down at rated output. Power Requirements: 700-850 VDC @ 250 mA with max. 1% ripple. 250 VDC @ 50 mA with max. 0.05% ripple. -115 VDC @ 10 mA with 0.5% max. ripple. 12.6 VAC/DC @ 2.5 A. Dimensions: 6.75" H x 12.75" W x 12" D.

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