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vol. 24

APRIL 11, 1980

PAARA

GRAPHS



PALO ALTO
AMATEUR
RADIO ASSN.

MENLO PARK C.D. RADIO CLUB, K6YQT

SHAVER RADIO, INC.

DAVID SHAVER
K6DTX

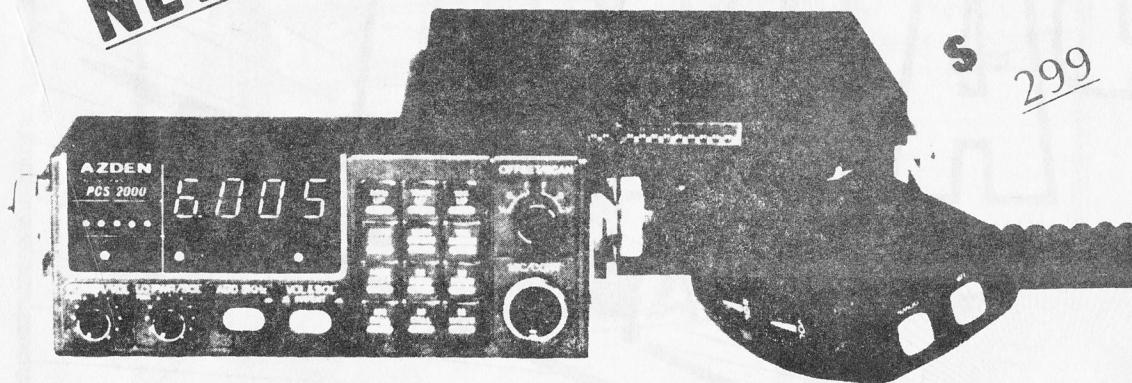
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SALES
SERVICE
INSTALLATION

AZDEN REVOLUTIONIZES THE STATE OF THE ART AWE AND AZDEN INTRODUCE THE BRILLIANT NEW PCS-2000 MICROCOMPUTER CONTROLLED 2 METER FM TRANSCEIVER

NEW!

NOT \$550.00
INTRODUCTORY
PRICE ,



COMPARE THESE FEATURES WITH ANY UNIT AT ANY PRICE

- **FREQUENCY RANGE:** Receive and transmit, 144.00 to 147.995 MHz. 5Khz steps + MARS-CAP, and MULTIPLE OFFSET BUILT IN
- ALL SOLID STATE-CMOS PL DIGITAL SYNTHESIZED.
- SIZE: UNBELIEVABLE! ONLY 6 $\frac{1}{4}$ " x 2 $\frac{3}{4}$ " x 9 $\frac{1}{4}$ " COMPARE!
- **MICROCOMPUTER CONTROLLED:** All scanning and frequency-control functions are performed by microcomputer.
- **DETACHABLE HEAD:** The control head may be separated from the radio for use in limited spaces and for security purposes.
- **SIX-CHANNEL MEMORY:** Each memory is re-programmable. Memory is retained even when the unit is turned off.
- **MEMORY SCAN:** The six channels may be scanned in either the "busy" or "vacant" modes for quick, easy location of an occupied or unoccupied frequency.
- **FULL-BAND SCAN:** All channels may be scanned in either "busy" or "vacant" mode. This is especially useful for locating repeater frequencies in an unfamiliar area.
- **INSTANT MEMORY-1 RECALL:** By pressing a button on the microphone or front panel, memory channel 1 may be recalled for immediate use.
- **MIC-CONTROLLED VOLUME AND SQUELCH:** Volume and squelch can be adjusted from the microphone for convenience in mobile operation.
- **ACCESSORY OFFSET:** With one optional crystal, three non-standard offsets become available.
- **25 WATTS OUTPUT:** Also 5 watts low power for short-distance communication.
- **DIGITAL S/R F METER:** LEDs indicate signal strength and power output. No more mechanical meter movements to fall apart!
- **LARGE 1 $\frac{1}{2}$ -INCH LED DISPLAY:** Easy-to-read frequency display minimizes "eyes off the road" time.
- **PUSHBUTTON FREQUENCY CONTROL FROM MIC OR FRONT PANEL:** Any frequency may be selected by pressing a microphone or front panel switch.
- **SUPERIOR RECEIVER SENSITIVITY:** 0.28 uV for 20 dB quieting. The squelch sensitivity is superb, requiring less than 0.1 uV to open. The receiver audio circuits are designed and built to exacting specifications, resulting in unsurpassed received-signal intelligibility.
- **TRUE FM, NOT PHASE MODULATION:** Transmitted audio quality is optimized by the same high standard of design and construction as is found in the receiver. The microphone, amplifier and compression circuits offer intelligibility second to none.
- **OTHER FEATURES:** Dynamic Microphone, built in speaker, mobile mounting bracket, external remote speaker/jack (head and radio) and much, much more. AC cords, plugs, fuses, microphone hanger, etc. included. Weight 6 lbs.
- **ACCESSORIES:** 15' REMOTE CABLE \$29.95 *MARS CAP KIT TBA PCS 6R
A/C POWER SUPPLY \$49.95

VOLUME 24 NUMBER 4

April 11, 1980

***** PAARAGraphs is the official organ of
The Palo Alto Amateur Radio Association and the Menlo Park Civil Defense Radio Club

1980 CLUB OFFICERS

BOARD OF DIRECTORS

President	:	Bob Wheeler	K6SEM	494 6549	Chairman:	Bob Wheeler	K6SEM
Vice President	:	Eric Edberg	W6DU	948 1748	Members :	Ed Fairbanks	W6AIN
Secretary	:	Gerry Tucker	WA6LNV	326 4908		Swede Swenson	KA6BEU
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Trustee, K6OTX	:	Fred Canham	K6YT	948 9238		Gerry Wagstaffe	W6NIR
Property	:	Ed Fairbanks	W6AIN	322 0319		Terry Conboy	N6RY
ARES Officer	:	Steve Stuntz	K6FS	322 4952		Jock McKaig	N6YV

PAARA POLICIES

PAARAGraphs STAFF

Membership in PAARA is \$6.00 per calander year (payable in January) which membership includes a subscription to PAARAGraphs. Interested others may subscribe to PAARAGraphs for \$6.00. Make payment to:

PAARA, P.O. Box 911, Menlo Park, CA 94025

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Advertising	:	Swede Swenson	KA6BEU
Printing	:	MELLONICS	A1OK
Mailing	:	Ed Fairbanks	W6AIN
Cover	:	Sue Lindner	L6VLY

Written contributions to P. O. Box above, or, 1043 Del Norte Av., Menlo Park, CA 94025

REGULAR MEETING

FRIDAY

***** APRIL 11, 1980 *****

7:30 P.M.

Rooms 15 & 17, Menlo Park Recreation Center, Civic Center, Alma

at Mielke Drive Menlo Park

April speaker, Erv Rasmussen, W6YPM

Peninsula Nostalgia Night

A description and discussion of Museum Pieces Erv will bring from his collection. Those who haven't seen his collection will not want to miss this meeting.

FUTURE MEETINGS: May 2, June 6

FIELD DAY June 28-29

This edition assembled by the Harper family while listening to the music of Big Bands.

General Meeting:

The general meeting was called to order by Bob, K6SEM.

Some discussion was held concerning acquiring a trailer for our recently purchased tower. The object would be to mount the tower permanently on the trailer so it could be swung into place at the field day site. Frank, WB6QPV, volunteered to build a trailer if needed. Anybody with information please call Fred, K6YT.

Jock, K6YT, announced plans for our up coming picnic, "April 20th". More details later.

An interesting talk and demonstration was given by master craftsman Don Topp, W6CFZ, well known for his "CB conversions". He gave the demonstration his all, including "Blood"! First Aid representatives Jerry, WA6LIJ, and Si, WA6ROM, administered emergency aid on the spot with one large bandaid.

Jim, K7UDG, and Explorer Post 599 announced their one year anniversary with PAARA and expressed their thanks for our support. Jim went on to say that all the original explorers now have their licenses.

EXPLORER CORNER

March marks the one year anniversary of Amateur Radio Post 599. I would like to express gratitude from the entire post to PAARA for its support over the last year. We couldn't ask for a finer sponsoring organization. Thank You!"

Also, Post 599 would like to express its gratitude and appreciation to Jim Hartwell, K7UDG, and Liza Aguilar, WA7WXA, for without them this post would never have formed and many of us would still be unlicensed. Jim and Liza put in much time helping and guiding 599; teaching us code and theory, finding us a place to meet, taking care of paper work, and in general keeping the post together. Thanks Jim and Liza, your time and efforts are much appreciated, even though we don't always reflect it.

Over the past year we managed to get all the original members licensed, Russell Rocket, KA6IZZ, and Karl Jogis, KA6JIR, were the last original members to be licensed. Congratulations! We still have some newer members working on it... shouldn't be too much longer before they join the ranks of the licensed.

Post 599's schedule for the next few months is clear, except for the Fresno trip in May. The activities should be increasing once summer is upon us again.

In closing I would again like to thank PAARA for its support over the last year and extend a lot of appreciation to Jim and Liza for all their contributions.

73's

Bob Gallagher, KA6IRT
Post President

* * * * *

QST DE K6OTR

On February 4, 1980, K6OTR--the station nominally licensed to the South County Amateur Radio Service Club and located in the Menlo Park Red Cross building at 3540 Middlefield Road--was requested to vacate its location at that address. Ever since the Red Cross reduced its staff and operations in Menlo Park several years ago, the status of K6OTR has been in question.

The station was originally established in 1955 by Hal Moore, W6DEF, while he was a resident of Redwood City, and served as a link between the Red Cross and amateur radio. In its early years, K6OTR had close ties to the South County Amateur Radio Society (SCARS) and the W6WWJ Redwood City Civil Defense and Disaster Communications Network. It drew many of its operators from the ranks of K6QNL, the call then being used by the Menlo-Atherton High School Amateur Radio Club.

As the years passed, interest in

PALO ALTO AMATEUR RADIO ASSOCIATION

(PAARA)

ARTICLES OF INCORPORATION

STATE OF CALIFORNIA

DEPARTMENT OF STATE

To all to whom these presents shall come, Greetings:

I, FRANK M. JORDAN, Secretary of State of the State of California, hereby certify:

That the annexed transcript has been compared with the RECORD on file in my office, of which it purports to be a copy, and that the same is full, true and correct.

In testimony whereof, I, FRANK M. JORDON, Secretary of State, have hereunto caused the Great Seal of the State of California to be affixed and my name subscribed, at the City of Sacramento, in the State of California, this 2nd day of March 1956.

s/ Frank M. Jordon

316870

ARTICLES OF INCORPORATION

PALO ALTO AMATEUR RADIO ASSOCIATION, INC.

WE, the undersigned, have this date voluntarily associated ourselves together for the purpose of forming a corporation under the laws of the State of California and we do hereby certify:

One: The name of this corporation is: Palo Alto Amateur Radio Association, Inc.

Two: The specific and primary purposes for which this corporation is formed are:

(a) For scientific and educational purposes;

(b) To foster better friendship and closer cooperation between amateur radio operators living in the vicinity of Palo Alto;

(c) To elevate the standards of amateur equipment and operation;

(d) To secure the benefits of social and educational contacts from the members;

(e) To aid the Federal Communications Commission in the giving of license examinations, in the enforcement of laws and regulations with respect to amateur radio operation, and to aid in the investigation and suppression of television and radio interference;

(f) To cooperate fully with Federal, State and Local officials in the maintenance of emergency communications and particularly in the establishment of civil defense communications;

(g) To receive gifts and requests; to own, control, buy, lease, rent, sell, acquire, hold, convey, mortgage, hypothecal and otherwise deal with or dispose of personal property, particularly, but not limited to, radio communication equipment.

(h) Do each and everything necessary, or suitable, or proper for the accomplishment of any of the purposes or the attainment of any one or any of the subjects herein enumerated or conducive to or expedite for the interest or benefit of said corporation and to contract accordingly; and in addition exercise all powers, rights, and privileges necessary or incidental to the purpose for which said corporation is organized or the activities in which it is engaged. If at any time this corporation should dissolve or its corporate existence should cease, or its charter should be revoked, no part of its funds or property shall be distributed to or shall inure to the benefit of any member or other individual, but after payment of all indebtedness of the corporation, its remaining funds shall be distributed by the Board of Directors for the furthering of scientific and educational purposes in the field of amateur radio communications;

Three: That this corporation is organized pursuant to the General Non-Profit Corporation Law of the State of California.

Four: The county and site of California where the principal office for transac-

tion of business of this corporation is to be located in Santa Clara County.

Five: This corporation is formed as a corporation not for profit to the members thereof.

Six:

Seven: Number, classification and term of officers is established by the by-laws.

BY-LAWS

PALO ALTO AMATEUR RADIO ASSOCIATION
(PAARA)

FOR THE REGULATION, EXCEPT AS OTHERWISE PROVIDED BY STATUTE OR ITS ARTICLES OF INCORPORATION OF PALO ALTO AMATEUR RADIO ASSOCIATION, INC.

Article I. Members.

(a) The members of this corporation shall be divided into two classifications, namely active members and associate members. An active member shall be any person holding a valid amateur radio operators license. All other members shall be associate members. All members shall have full voting privileges, but only active members shall hold office.

(b) Any prospective member may apply for membership at his first attended meeting. Applications for membership may be voted upon at this same meeting. A three-fourth's majority of the members present shall be required to elect an applicant to membership.

(c) Upon being elected to membership, the applicant shall pay a fee of \$1.00 and shall commence paying dues at the rate of \$4.00 per year. All dues shall become payable on January 1 for the ensuing year, and members elected to membership during the course of a year shall make a pro rata payment for the balance of the year. Upon said election and said payment, the applicant's name shall be inscribed in the membership book.

(d) Any member who fails to pay his dues for a period of three months shall, at the discretion of the Board of Directors, be dropped from membership book of the corporation.

Article II. Corporate powers.

The corporate powers of this corporation shall be vested in a Board of Directors, all of whom shall be members of this corporation in good standing. Four members of the Board of Directors shall constitute a quorum for the transaction of business.

Article III. Board of Directors.

The Board of Directors shall consist of the president and six directors chosen from the membership. The president shall be elected for a period of one year and the directors shall be elected for a period of two years at

the regular meeting to be held on the first Friday of December of each year. Three directors shall be elected each year and in the event any director withdraws from the corporation, the balance of his term shall be filled by an appointment by the President. The following shall be initial directors with terms expiring on the dates shown:

Name	Date
Parker M. Robinson, Jr.	December 7, 1956
William Luebke	December 7, 1956
Eric Edberg	December 7, 1956
Richard A. Fisher	December 1957
Robert J. Turner	December 1957
Robert G. Slick	December 1957

Article IV. Powers of Directors.

Regular meetings of the Board of Directors shall be held at the call of the President or, in his absence, the Vice-President, on such notice as is determined by the Board of Directors. Special meetings of the Board of Directors may be called by the President or Vice-President on twentyfour hours' notice to each Director, either personally or by mail or telephone.

The Directors shall have the power:

- (1) to have general charge of all interests of the organization;
- (2) the Directors shall consider and report at each meeting all proposals for the benefit of the individual members or the general welfare of the corporation;
- (3) the Board of Directors shall adopt ways and means for the advancement of the corporation, designate work to be done between meetings of the corporation, audit all accounts and expenses, direct the expenditure of funds of the corporation but not in excess of the amount held by the Treasurer.

Article V. Duties of the Directors.

It shall be the duty of the Directors to

PAARA ROSTER, APRIL, 1980

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Adachi, Richard R.	W6RVS	2 Coleman Pl.	Menlo Park, CA	94025
Aguilar, Liza	WA7WXA	P.O. Box 7410	Stanford, CA	94305
Allen, Kenneth R.	WB6BCV	3784 Grove Av.	Palo Alto, CA	94303 494 8868
Alexander, Mike	KA6GRU	355 Barton Wy.	Menlo Park, CA	94025 324 9246
Anderson, Andrew J.	K6EHS	735 Mayview Av.	Palo Alto, CA	94303 494 0831
Arnold, John L.	WA6YSY	550 Morse Av.	Sunnyvale, CA	94086
Arcularius, H. Robert	WA6IOW	640 Fairmede AV.	Palo Alto, CA	94306 493 0797
Bartelme, John P.	WA6AMC	1025 San Mateo Dr.	Menlo Park, CA	94025
Baum, Douglas A.	KA6DQR	P.O. Box 993	Galveston, TX	77553
Baum, Robert A.	W6BFH	1043 Del Norte Av.	Menlo Park, CA	94025 325 0497
Brodie, D. H.	W6PGQ	315 Cotton St.	Menlo Park, CA	94025 323 0353
Buonocore, John J.	KA6CUG	112 Oakwood Dr.	Redwood City, CA	94061 366 1658
Burke, Thomas E.	WA6KVT	1101 5th Av.	Redwood City, CA	94063 368 7748
Cady, Henry G.	W6PSY	P. O. Box 883	Clearlake Highlands, CA	95422
Callander, George	WA6SZX	51 Primrose Wy.	Palo Alto, CA	94303 856 1752
Camp, Edwin K.		1161 Cloud Av.	Menlo Park, CA	94025 854 5640
Canham, Fred F.	K6YT	691 Casita Wy,	Los Altos, CA	94022 948 9238
Chan, Loren B.	WA6ENC	6182 Ocho Rios Dr.	San Jose, CA	95132 629 1852
Cary, Charles E.	KA6CZN	940 Arbor Rd. Apt. C	Menlo Park, CA	94025 323 6401
Chandler, Frank	WB6QPV	1040 Menlo Oaks Dr.	Menlo Park, CA	94025 322 7678
Churchill, Paul K.	W6QBY	3706 Pac. Cst Hy.	Ventura, CA	93001 643 6760
Clark, Ed	W6KJI	3657 Oak Knoll Dr.	Redwood City, CA	94062 366 1817
Collins, H. R. (Dick)	K6ANN	1921 Birch Av.	San Carlos, CA	94070 593 8952
Conboy, Terry	N6RY	1231 Crestview Dr.	San Carlos, CA	94070 592 8750
Crocker, Earl W.	W6VYC	224 Selby Ln.	Atherton, CA	94025 366 2790
Croft, William	WD9ADG	20 Coleman AV, Apt 20	Menlo Park, CA	94025
Daniel, Dave	KB6WP	240 University Dr.	Menlo Park, CA	94025 325 3347
DeLiban, Robert	W6FGL	1015 Lemon St.	Menlo Park, CA	94025 322 6906
Dikum, Gerald	WD6CVW	1023 Menlo Oaks Dr.	Menlo Park, CA	94025 322 8300
Dorrance, David	WA6YSO	750 Coleman Av. Apt. 8	Menlo Park, CA	94025 321 6808
Doster, Landry G.	K6MPN	966 Glennan Dr.	Redwood City, CA	94061 368 8156
Dwight, Kenneth W.	WA6NYB	2371 Carmel Dr.	Palo Alto, CA	94303 856 0727
Edberg, Eric B.	W6DU	461 Heather Ct.	Los Altos, CA	94022 948 1748
Edgerton, Millard J.	WA6VZZ	49 Showers Dr.	Mountain View, CA	94040 965 6433
Edson, Willard		2165 Carmelita Dr.	San Carlos, CA	94070
Elge, Al	AG6D	1710-A Marshall Ct.	Los Altos, CA	94022 969 1083
Fairbanks, Edmund U.	W6AIN	1049 Sonoma Av.	Menlo Park, CA	94025 322 0319
Famulener, Keith	WB6GYT	2380 Waverly St.	Palo Alto, CA	94301 326 8673
Ferranti, Richard L.	WA6NCX	215 Herrick Rd.	Newton Center, MA	02159
Finkbeiner, Dick	W6AQL	267 Bonny St.	Mountain View, CA	94043 961 6655
Fraher, John	KA6FRK	23000 Cristo Rey Dr.	Los Altos, CA	94022 967 3822
Frye, William		536 Lincoln Av.	Palo Alto, CA	94301 326 2610
Gallagher, Robert J.	KA6IRT	1378 Ensenada Wy.	Los Altos, CA	94022 968 0847
Godwin, Myron R.		720 Coleman Av.	Menlo Park, CA	94025 322 1737
Harper, David	WB6JFH	1244 The Alameda	Redwood City, CA	94061 366 9672
Harper, Walter		1244 The Alameda	Redwood City, CA	94061 366 9672
Hartwell, James W.	K7UDG	1777 Woodland Av. #38	Palo Alto, CA	325 8309
Hausafus, Edward T.	WA6FSQ	67 Encina Av.	Atherton, CA	94025 366 5640
Hill, Robert	W1ARR	1621 Redwood Av.	Redwood City, CA	94061 367 9588
Hinton, Peter D.	WD6CVP	33 Maple	Atherton, CA	94025
Hogsett, Gerald R.	W6PPK	211 Hedge Rd.	Menlo Park, CA	94025
Hogsett, Jerry	KA6FYW	1446 Wildrose Wy	Mountain View, CA	94043 967 1650

Hornback, Huntley	KA6HEB	1474 Marlborough Av.	Los Altos, CA	94022
Hornback, John	KA6FYX	1474 Marlborough Av.	Los Altos, CA	94022
Hotz, Preston E.	K6WD	209 Blackburn Av.	Menlo Park, CA	94025
Ice, George E.	K6CMT	855 Sommerset Ct.	San Carlos, CA	94070
Jenkins, Bill	WB6ILM	2360 St. Francis	Palo Alto, CA	94303
Jenson, Alan S.	W6UVP	2312 Santa Anna	Palo Alto, CA	94303
Johnson, Don	W6AAQ	809 Capay St.	Esparta, CA	94303
Kanthack, Kurt H.	WD6BGV	165 Stonepine Ln.	Menlo Park, CA	94025
Katz, Nolan	KB6LT	1030 Silverhill Rd.	Redwood City, CA	94061
King, William R. Jr.	N6CHI	875 Sunset Dr.	San Carlos, CA	94070
Kirkley, Charles R.		P.O. Box 3694, Dept PAAR	Stanford, CA	94305
Korsak, Andrew J.	VE3FZK	504 Lakemead Wy.	Redwood City, CA	94062
Krawetz, Bruce	N6AOZ	654 Barnsley Wy.	Sunnyvale, CA	94087
Krawetz, Howard M.	N6HM	654 Barnsley Wy.	Sunnyvale, CA	94087
Lapp, Kevin	WA6FHC	1096 Connecticut Dr.	Redwood City, CA	94061
Laird, Richard J.	WA6BQY	3927 Louis Rd.	Palo Alto, CA	94303
LarRieu, Barry J.	WA6UIM	P.O. Box 752	Menlo Park, CA	94025
Larson, R. Alan	WA6AZP	700 Arbor Rd. #3	Menlo Park, CA	94025
Lazier, John K. D.	W6HBT	950 Blair Ct.	Palo Alto, CA	94303
Liljegren, Gary	W6SH	P.O. Box 73	Des Moines, IA	50301
Lile, Irene	WB6RAF	154 Wayside Rd.	Portola Valley, CA	94025
Lile, Shannon	K6TNY	154 Wayside Rd.	Portola Valley, CA	94025
Lin, David	N6WN	892 Mango Av.	Sunnyvale, CA	94087
Lockhart, Robert J.	N1AFN	P.O. Box 1026	Mountain View, CA	854 5426
McKaign, Jock	N6YV	651 Teredo Dr.	Redwood City, CA	94065
Magnuski, Hank	KA6M	311 Stanford Av.	Menlo Park, CA	94025
Mager, Robert F.	WA6DVI	13245 Rhoda Dr.	Los Altos Hills, CA	94022
Martin, Hank	W6UCE	3283 Kipling St.	Palo Alto, CA	94306
McElhinney, W.G. (Bill)		666 Tennyson Av.	Palo Alto, CA	94301
McEnherney, Jack	W6LII	73 Ensenada Rd.	San Carlos, CA	94070
McGuire, David	W6JTH	5943 Tompkins Dr.	San Jose, CA	95129
McNamee, Mike	KE6S	3833 Park Blvd. Apt. 12	Palo Alto, CA	94306
McReynolds, Leslie N.	WB6RNO	12051 Moody Springs Ct.	Los Altos Hills, CA	94022
Maceijowski, Antoni	WA6KJJ	734 Ashbourne Dr.	Sunnyvale, CA	94087
Moore, Harold F. (Hal)	W6DEF	12685 Manor Way	Auburn, CA	95603
Morton, Bob	WA6SOI	748 San Jude Av.	Palo Alto, CA	94306
Moss, George E.	W6AZS	4049 Middlefield Rd.	Palo Alto, CA	94303
Nelson, Raymond A. (Ray)	KB6RZ	786 Allen Ct.	Palo Alto, CA	94303
Narvaez, Bill		327 D St.	Redwood City, CA	94063
Nicholson, Carl Jr.	KA6EKG	1167 Walnut	San Carlos, CA	94070
Nixon, George	GI3OEN	168 Kellogg Av.	Palo Alto, CA	94301
Porter, Wallace	K6URO	3328 Kenneth Dr.	Palo Alto, CA	94303
Pierce, Cameron G	K6RU	570 La Mesa Dr.	Ladera, CA	94025
Rasmussen, Erwin A.	W6YPM	164 Lowell St.	Redwood City, CA	94062
Read, Walter A.	W6ASH	10371 Berkshire Dr.	Los Altos, CA	94022
Roberts, John F. Jr.	W6QXP	2140 Bryant St.	Palo Alto, CA	94303
Roche', Curtis H.	K6AL	3890 Louis Rd.	Palo Alto, CA	94303
Root, L. Eugene	WB6000	1340 Hillview Dr.	Menlo Park, CA	94025
Runyon, Steven A.	WD6AAS	461 Myrtle St.	Redwood City, CA	94062
Russell, A. W.	W6TFT	2505 Hopkins Av.	Redwood City, CA	94062
Ryan, Ralph B.	WB6NNL	1021 Stanley Wy.	Palo Alto, CA	94303
Schellenberg, Chris	WB6WBK	311 Oakwood Pl.	Menlo Park, CA	94025
Scherf, Thomas	K6JBR	411-B 5th Av.	Redwood City, CA	94063
Schlaman, Gregg	WA6ECQ	4180 Wallis Ct.	Palo Alto, CA	94306

Schrauwen, Adrianus	KA6ATG	3155 Stockton Pl.	Palo Alto, CA	94303	494 6256
Schumacher, Leonard J.	WA6HLE	902 Avon	Belmont CA	94002	591 4385
Sherrod, H. C. (Clay)	K50SQ	1475 Woodberry Av.	San Mateo, CA	94403	349 1876
Shore, J. Neville, Sr.	K6OYN	4272 Suzanne Dr.	Palo Alto, CA	94306	493 6926
Shore, J. Neville, Jr.	WB6LVP	4272 Suzanne Dr.	Palo Alto, CA	94306	493 6926
Simpson, Richard A.	W6JTH	3326 Kipling	Palo Alto, CA	94306	494 9272
Smith, Dan	KA6IXE	2001 Valparaiso Av.	Menlo Park, CA	94025	325 9995
Stainback, Albert W.	WA6GVP	805 Evergreen St.	Menlo Park, CA	94025	322 6384
Starkey, Jerry	WA6LIJ	736 Filip Rd.	Los Altos, CA	94022	964 6584
Stein, Seymore (Sy)	WA6ROM	13080 Lorene Ct.	Mountain View, CA	94040	967 0362
Stiles, Robert	WA6MIV	60 Queens Ct.	Atherton, CA	94025	325 5022
Streib, Fred	W6NA	736 Garland Dr.	Palo Alto, CA	94303	326 7846
Stuntz, Stephen E.	K6FS	164 Oak Ct.	Menlo Park, CA	94025	322 4952
Sue, Jeffrey	WA6SLF	1016 Middle Av. Apt. 1	Menlo Park, CA	94025	321 7750
Swenson, Lloyd L.	N6CHL	73 Adam Wy.	Atherton, CA	94025	368 8503
Talbert, Elmer	W6PFC	2414 Read Av.	Belmont, CA	94002	593 7320
Tallmon, W. B.	W6DVB	355 Santa Margarita Av.	Menlo Park, CA	94025	326 0112
Taylor, Rob		925 Waverly St (101)	Palo Alto, CA	94301	321 5089
Tennissen, Thomas	KH6DZB	23000 Cristo Rey Dr.	Los Altos, CA	94022	967 3822
Thekan, Paul	WA6IJP	335 Rutherford Av.	Redwood City, CA	94061	369 4034
Tiffany, Willard D.	W6GNX	880 Coleman Av.	Menlo Park, CA	94025	324 4524
Topp, Don	W6CFZ	1092 Metro Circle	Palo Alto, CA	94303	858 0225
Troster, John G.	W6ISQ	82 Belbrook Wy.	Atherton, CA	94025	854 3939
Tucker, Gerald H.	WA6INV	1112 Ramona St.	Palo Alto, CA	94301	326 4908
Vancouver, James F.		3801 Miranda Av. M.P.D.	Palo Alto, CA	94304	
Vercelli, John	KA6EWX	18920 McFarland Av.	Saratoga, CA	95070	
Vickery, Leslie	W6AKR	980 Third St.	Redwood City, CA	94063	368 5175
Vosper, Larry	KA6DZM	P.O. Box 8398, SF Arpt.	San Francisco, CA	94128	349 9374
Wagstaffe, Gerard	W6NIR	4 Robert S Dr.	Menlo Park, CA	94025	325 4670
Wallace, Robert E.	K6OL	240 Cervantes Rd.	Portola Valley, CA	94025	851 0249
Wardlow, Vance	W6FLE	1260 Bellair Wy.	Menlo Park, CA	94025	854 0803
Wheeler, Robert	K6SEM	868 Elbridge Wy.	Palo Alto, CA	94303	494 6549
Wickman, Fred	WA6BCH	P.O. Box 703	Los Altos, CA	94022	948 2734
Wilder, H. Kenneth	K6RB	58 Catalpa Dr.	Atherton, CA	94025	323 9953
Wortman, Leon	W6KTP	743 Holly Oak Dr.	Palo Alto, CA	94303	494 2613
Yelton, Perry	N6COH	3401 E. Bayshore Rd.	Redwood City, CA	94063	366 7880
Zaner, Bill	WB6IYS	885 Sharon Ct.	Palo Alto, CA	94301	328 2677
Zobel, Jerome F.	W6ARA	877 Northampton Dr.	Palo Alto, CA	94303	322 0063

W6AAQ	Don Johnson	KA6GRU	Mike Alexander	KB6RZ	Ray Nelson
WD6AAS	Steve Runyon	WB6GVP	Maurice Lambert	KE6S	Mike McNamee
WD9ADG	Bill Croft	WB6GYT	Keith Famulener	K6SEM	Bob Wheeler
W6AIN	Ed Fairbanks	W6HBJ	John Lazier	W6SH	Gary Liljegren
W6AKR	Les Vickery	KA6HEB	Huntley Hornback	WA6SLF	Jeffrey Sue
K6AL	Curt Roche'	WA6HLE	Leonard Schumacher	WA6SOI	Bob Morton
K6ANN	Dick Collins	N6HM	Howard Drawetz	WB6STW	Dan Curry
WA6AMC	John Bartleme	WB6HWZ	Willard Griffith	WA6SZX	George Callander
N6AOZ	Bruce Krawetz	WA6IJP	Paul Thekan	W6TFT	Al Russell
W6AQL	Dick Finkbeiner	WA6ION	Richard Arcularius	K6TNY	Shannon Lile
W6ARA	Jerry Zobel	KA6IRT	Bob Gallagher	W6UCE	Hank Martin
W1ARR	Bob Hill	W6ISQ	John Troster	K7UDG	Jim Hartwell
W6ASH	Walt Read	KA6IXE	Dan Smith	K6URO	Wallace Porter
W6AZP	Alan Larson	WB6IYS	Bill Zaner	W6UVP	Alan Jenson
W6AZS	George Moss	K6JBR	Tom Scherf	W6VYC	Earl Crocker
WA6BCH	Fred Wickman	WB6JFH	Dave Harper	WA6VZZ	Millard Edgerton
WB6BCV	Ken Allen	W6JHU	Dave McGuire	WB6WBK	Chris Schellenberg
W6BFH	Bob Baum	W6JTH	Richard Simpson	K6WD	Pres Hotz
WA6BQY	Dick Laird	W6KJI	Ed Clark	N6WN	David Lin
WD6BGV	Kurt Kanthack	W6KTP	Leon Wartman	KB6WF	Dave Daniel
W6CPZ	Don Topp	WA6KVT	Tom Burke	WA7WXA	Liza Aguilar
N6CHD	Perry Yelton	W6LII	Jack McEnnerney	W6YPM	Erv Rasmussen
N6CHI	Bill King	WA6LIJ	Gerry Starkey	WA6YSY	John Arnold
N6CHL	Swede Swenson	WB6LML	Bill Jenkins	WA6YSO	David Dorrance
K6CMT	George Ice	WA6INV	Gerry Tucker	K6YT	Fred Canham
KA6CUG	John Buonocore	KB6LT	Nolan Katz	N6YV	Jock MacKaig
WD6CVP	Peter Hinton	K6LVJ	Gary Perazzo		Ed Camp
WD6CVW	Gerald Dikum	WB6LVP	Neville Shore	Willard Edson	
KA6CZN	Charles Cary	KA6M	Hank Magnuski	Bill Frye	
AG6D	Al Elge	WA6MTV	Bob Stiles	Tad Godwin	
W6DEF	Hal Moore	K6MPN	Dusty Doster	Walt Harper	
KA5DQR	Doug Baum	WA6NCX	Rick Ferranti	Karl Jogie	
W6DU	Eric Edberg	W6NIR	Gerry Wagstaffe	Charles Kirkley	
W6DVB	Bill Tallmon	WB6NNL	Ralph Ryan	Sandy Large	
WA6DVI	Bob Mager	WA6NYB	Ken Dwight	Bill McElhinney	
KH6DZB	Tom Tennissen	GI3OEN	George Nixon	Rob Taylor	
KA6DZM	Larry Vosper	K6OL	Bob Wallace	Jim Vanover	
WA6ECQ	Gregg Schlamann	WB6000	Gene Root		
K6EHS	Andy Anderson	WA6OPA	Gerry Laxon		
KA6EKG	Carl Nicholson	K50SQ	Clay Sherrod		
K6EM	Roy Wardell	K6OYN	Neville Shore		
WA6ENC	Loren Chan	W6PGQ	David Brodie		
KA6EWX	John Vercelli	W6PPK	Gerry Hogsett		
W6FGL	Rob De Liban	W6PSY	Henry Cody		
WA6FHC	Kevin Lapp	WB6QPV	Frank Chandler		
W6FLE	Vance Wardlow	W6QBY	Paul Churchill		
KA6FRK	John Fraher	W6QXP	John Roberts		
K6FS	Steve Stuntz	WB6RAF	Irene Lile		
WA6FSQ	Ed Hausafus	K6RB	Ken Wilder		
KA6FYW	Gerald Hogsett	WB6RNO	Les McReynolds		
KA6FYX	Huntley Hornback	WA6ROM	Sy Stein		
VE3FZK	Andy Korsak	K6RU	Cam Pierce		
W6GNX	Tif Tiffany	W6RVS	Dick Adachi		
WA6GVP	Al Stainback	N6RY	Terry Conboy		

keep complete records of all their minutes and acts, and to present a full statement at the regular annual meeting of the members, showing in detail the assets and liabilities of the corporation and generally the condition of its affairs.

Article VI. Duties of the President.

It shall be the duty of the President to preside at all meetings of the corporation and to preside at all meetings of the Board of Directors. It shall be the further duty of the President to make all committee appointments.

Article VII. Duties of the Vice-President.
It shall be the duty of the Vice-President to perform all the duties of the President during his absence.

Article VIII. Duties of the Secretary.

It shall be the duty of the Secretary to receive all communications that may be addressed to the club and to keep a full report of the proceedings of each meeting. He shall read all communications upon request of the President.

The Secretary shall also promptly deliver all books, papers, or other property of the corporation to his successor in office, or whomsoever the club may appoint.

He shall maintain a book listing all members of the organization.

He shall perform such other duties as may be required of him by the club or by his office.

Article IX. Duties of the Treasurer.

It shall be the duty of the Treasurer to receive all dues and monies belonging to

- 11 -
the club and pay all orders drawn on him by a majority vote of the members of the club present at a regular meeting, or at a time intervening between meetings when ordered by the Board of Directors and signed by the President.

The treasurer shall make a complete report on all monies received and disbursed at the meeting immediately following termination of a quarter, namely 31 March, 30 June, 30 September and 31 December.

He shall perform such other duties as may be required of him by the club or his office.

Article X.

The By-Laws of the corporation may be amended by a three-fourths vote of the membership after due notice as provided herein. Proposals for amendment shall be submitted in writing at a regular meeting of the corporation and may not be voted upon until the next regular meeting.

Motion to amend the By-Laws of the corporation made at any regular meeting shall be mailed to each member at least fifteen days prior to the next regular meeting, at which time a vote will be taken. Votes of absentee members may be exercised by written proxy.

Article XI.

In any question coming before a meeting for which no provision has been made in the articles of incorporation and by-laws, the officer presiding over the meeting shall be governed by "Roberts Rules of Order".

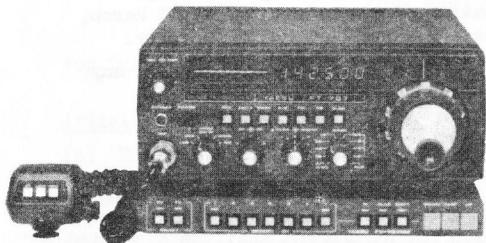


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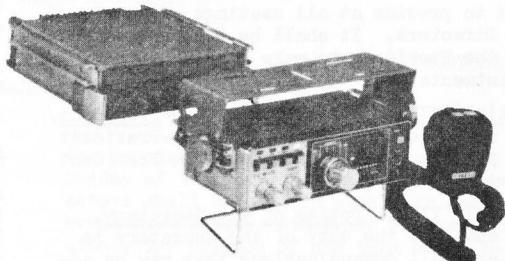


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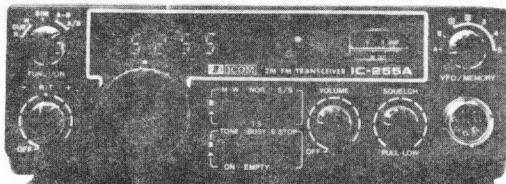
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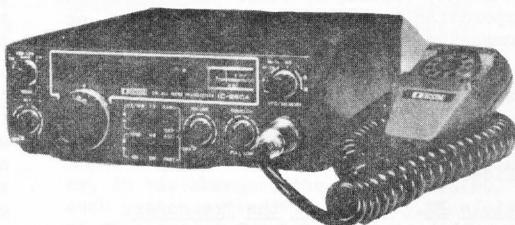
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Welcome

maintaining the station lagged. When W6DEF moved to Auburn in 1975, Loren Chan, WA6ENC, who then was living in Redwood City, agreed to assume the responsibility of station trustee. For the last five years, K6OTR has remained on the air and has been active on 2 Meters, on AM from 1975 to 1978, and on FM from 1979 to date.

Now that K6OTR is no longer affiliated with the Red Cross, its original reason for being is no more. The station's license will expire in September 1980. It will not be renewed. All that remains to remind us of the 25 year existence of K6OTR is the trusty 2 Meter ground plane that still sits atop the Red Cross building. Use of the antenna and location for emergency communications by radio amateurs will still be possible through prior arrangement with Red Cross Officials.

K6OTR's three Gonset IIs, one Gonset III, and one Gonset IV were all transferred on February 18, 1980 to WB6WBK, K7UDG and PAARA Explorer Post 599 for their 2 Meter AM network. Another generation of new hams will be using the station's equipment to gain some on-the-air experience behind the microphone.

Loren, WA6ENC

8 8 8 8 8 8

!! COME ONE--COME ALL !!

Announcing our 2nd PAARA picnic! Mark the day on your calendar--Sunday April 20th at 10 a.m. or after. The place will be beautiful Huddart Park north-west of Woodside on Kings Mountain Road. Our picnic site will be Mewok Shelter.

The club will provide soft drinks, beer, coffee and charcoal for the fire. There will also be door prizes.

Admission to the park is \$2.00 per car. There are signs directing you to the picnic site and someone will be listening on the club frequency if you need assistance.

Jock, N6YV
Picnic Chairman

FROM CRYSTAL TO CRYSTAL

"Have you got a uniform?" asked the Marine Radio Manager. "Yes," I replied. "All right. You can have the job as 3rd on the Sierra."

What a day! Graduated from high school in the morning, got a job as a seagoing radio operator in the afternoon. I didn't have a uniform or any money to buy one, and I didn't know anything about the Sierra. After I wheedled my grandfather into paying for my uniforms as a graduation present, Joe Harris, Outfitter to Seamen on San Francisco waterfront, fitted them to me. And I learned that the Sierra, a passenger liner of Oceanic Steamship Co., ran to Australia via Honolulu and Pago Pago.

We sailed July 8, 1924

My commercial ticket was only three months old, but my Amateur license had been obtained four years before. My first receiver was a galena crystal, cat whisker detector and "loose coupler" tuner. Transmitter was a Murdoch $\frac{1}{2}$ KW transformer and a rotary spark gap, which continually knocked the crystal out of adjustment during transmission.

The apparatus on the Sierra, WHJ, was an SE 143 receiver, $\frac{1}{2}$ KW quenched spark set and a 2 KW Poulsen arc. The arc operated in an atmosphere of alcohol vapor, alcohol being drop fed during operation by a needle valve actuated by a solenoid on "Transmit". We had trouble with the valve, so we started and stopped the alcohol feed by hand.

We were three days out before I got any messages to send on my watch, then I got two. I called San Francisco, KFS. This was a momentous occasion, my first commercial traffic handling. KFS told me to wait. In my excitement I forgot to turn off the alcohol feed. Time passed. KFS called me. I struck the arc. The explosion was muffled, but ample. The heavy, hinged upper part of the arc chamber rose two

inches, pieces of gasket flew out in all directions and a cloud of evil smelling smoke filled the shack. So much for my traffic handling. The rest of the watch was spent putting things back together again, while KFS called me in vain.

After the Sierra there were other ships, including the S.S. Harvard, Colombia, H.F. Alexander and President Lincoln. The "H.F." was a beautiful liner, long and narrow, built to beat train time between San Francisco and Seattle. She could act up a bit going north when the wind and sea were going south, a circumstance which did not make life more pleasant while sitting in a chair during a long early morning watch. However, she carried a large number of passengers, so the considerable amount of traffic we had to handle helped keep our minds away from our stomachs. I received my first and only SOS on the "H.F." Going south we were far offshore opposite the mouth of the Columbia River when I heard a very loud distress signal. It was sent from the S.S. Laurel, an intercoastal freighter. Crossing the Columbia River bar, outbound she lost power and began drifting toward the beach. The USCG cutter Redwing went to her assistance, but was unable to get a line aboard, and the Laurel went on the beach. Eventually she broke in two, a total loss.

I signed off my last ship, the President Lincoln, in 1929. Thereafter the time demanded by my new activities did not leave any for ham radio. Over the years I was aware of the tremendous changes in radio communication. I knew the crystal detector, arc and spark were gone, followed by the rise and fall of tubes and the development of solid state.

After retirement three years ago I prepared to get back into amateur radio. I studied for the General examination, because I felt I could not be a novice again. When the young lady in the FCC examination room told me I had passed, I thought of my first license in 1920. Novice to General in 56 years. As I started to leave, the

young lady called, "Just a moment. I notice you do not have a Novice license. The New regulations require that you have a Novice before you can be a General."

"Okay," I said. "Can I take it now?" "Don't you want to study a little more first?" she asked. If you fail the Novice you won't get the General." "I like to live dangerously. I'll try it now." When I turned in my examination the young lady smiled. "You passed the Novice," she said. "So now you have the General."

As I walked out I thought how the time element had changed. This time I had gone from Novice to General in less than a minute.

Only when I joined PAARA net did I realize that everything, and nothing, had changed. I had come full circle. On 147.45 I was still operating a crystal.

Jerry Zobel, W6ARA

FOR SALE:

HAMCO Iambic paddle, "The Scotia" Model. Like new. Only 6 months old. Never operated above 25 wpm. Surplus because xyl gave me something like it for my birthday. W6KTP (Leon) Palo Alto. Call 494-2613 Asking \$30

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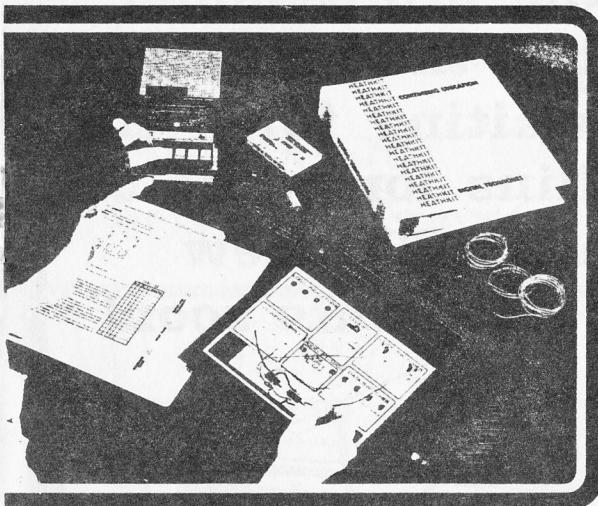
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VFO for DX-60 prefer Heath HG-10 call Jim K7UDG

Need BC-659 Xcsvr and vibrator supply. Also need shockmount FT-250 and whip antenna AN-29. Am interested in purchasing any WWII or newer surplus vehicular radios and antennas.

Please call Paul, WA6IJP 369-4034

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6. Identify the more commonly used integrated circuit families used in digital equipment and discuss their operation, characteristics, and features.
7. Use Boolean Algebra to express logic operations and minimize logic circuits in design.
8. Understand the operation of flip-flops.
9. Understand the operation and application of binary and BCD counters, shift registers and other sequential logic circuits.
10. Name the most frequently used combinational logic circuits and explain their operation.
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12. Understand the operation and application of digital counters in time and frequency measurements.
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14. Understand microprocessors, explain their operation and give examples of their applications.

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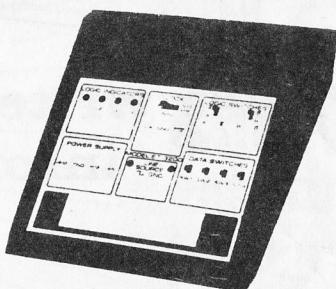
This versatile electronic trainer lets you learn by doing. Use it to get maximum benefit from the Digital Techniques Program.

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