

vol. 28

PARA

GRAPHS



PALO ALTO
AMATEUR
RADIO ASSN.

MENLO PARK C.D. RADIO CLUB, K6YQT

May 1985



PARRAGRAPHS is the official newsletter of the
Palo Alto Amateur Radio Association &
the Menlo Park Civil Defense Radio Club.

1985 CLUB OFFICERS

President	Alan Larson	WA6AZP	326-6430
Vice-President	Andy Korsak	VE3FZK	366-5228
Secretary	Bill King	N6CHI	595-0258
Treasurer	Jack McEnnerney	W6LII	591-8526
Trustee, W6OTX	Fred Canham	K6YT	948-9238
Property	Ed Fairbanks	W6AIN	322-0319
Co-Property/Badge	Fred Canham	K6YT	948-9238
Refreshments	Frank Chandler	WB6QPV	322-7678
ARES Officer	Steve Stuntz	K6FS	322-4952
Club Historian	Jerry Zobel	W6ARA	322-0063

BOARD OF DIRECTORS

Chairman	Dave Daniels	KB6WP
	Gerry Tucker	WA6LNV
	Ed Fairbanks	W6AIN
	Clif Keely	KA6JWA
	Andy Anderson	K6EHS
	Ron Panton	W6VG

PAARAGRAPHS STAFF

Editor	Rob Taylor	KA6NAN	857-9138
Advertising	Swede Swenson	N6CHL	368-8503
Mailing	Bill McElhinney	KA6LZI	325-9808

PAARA POLICIES

Membership in PAARA is \$6.00 per calendar year which includes a subscription to Paaragraphs. Make payment to: PAARA, P.O. Box 911, Menlo Park, Ca. 94026

Club Net 147.45 MHZ Monday @ 8:30 PM

The Speaker for this month will be

introduced immediately
after
a pitch is made for
support regarding lining
up speakers!

Editors Note

I am *very* proud to announce: the ARRL has awarded Ken Dueker **First Place** for Santa Clara Valley section, in the Novice Roundup. Congratulations Ken !!!

Gateway Vol. 1

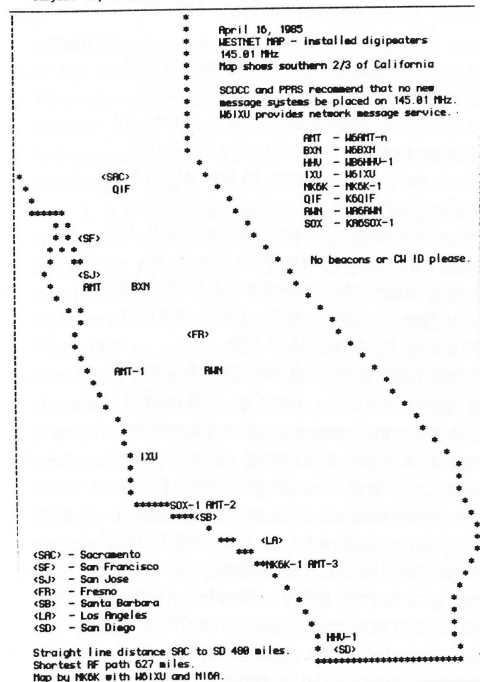
Packet on Field Day? You bet! The ARRL has just announced that Packet Radio will be enhanced for the 1985 Field Day, June 22,23. Rule changes are: (1) One Packet contact gets you 100 Points. Each additional packet contact counts 2 points (CW rules!). (2) The Packet station is a FREE station. This means that it does not count in class entry of number of transmitters. Novice and Oscar share this status. (3) DIGIPEATERS WILL be allowed!! (repeater rule is waved for packet.) See May QST for details. Go out and offer your services to the local ham club!! This announcement should go a long ways towards making more hams and the public aware of Packet Amateur Radio. GoodLuck.

Editors Note - ~~some~~ of the articles for this months PaaraGraphs were down loaded over the air using Packet Radio, from the W5SVUL-1 computer bulletin board at the Palo Alto Red Cross. I thought I would let those of you unfortunate enough not to be on Packet Radio to see what you are missing!

TRANSCONTINENTAL

PACKET At the meeting of the Board of Directors of the Pacific Packet Radio Society (PPRS) on March 21st, 1985, the following resolution was passed: Whereas the PPRS was one of the first societies formed specifically to encourage the growth of computer networking via radio using all digital concepts and techniques, and whereas the San Francisco area was the site of the nation's first amateur digipeater, and whereas an even greater challenge faces the amateur radio community to establish a transcontinental link, the Pacific Packet Radio Society has decided to

*** Subject: Map of installed 145.81 Digipeater paths



Editors Note - I just happen to have a number of 12V, 8.4 AMP switching power supplies available at \$25.00/each. These *new* supplies are enclosed, with barrier strips for power in/out. Give me a call at 857-9138 if you are interested. (Rob - KA6NAN)

If any of you out there have items you wish to buy/sell, drop me a note, or give me a call.

*** Message from KB6FVA to ALL entered
Wednesday 24-Apr-85 at 11:11 PM
*** Subject: new emergency operations trailer

redwood city police department has a new crime prevention/disaster communications command post. a 30 foot trailer, being wired and rigged by hams. the redwood city amateur radio disaster communications service has been in operation for more than thirty years, but is enjoying a new revival. with more than 25 active members, the group is reinforcing the rapport with the local police and fire groups. the police department has a state grant for the trailer, and the hams are the active technicians, putting all of the communications gear together. wilson 16 channel synthesized radios are being used on 155 mhz, 460, 480 and 490 mhz. there is also a kenwood tr-7950 2-meter rig and a 50 watt astron power supply to run it all, and a honda generator to run away from the ac main. we will be using the trailer for field day, but we look forward to mail from packeteers on the pacific packet radio societies mailbox in palo alto, wb5vul-1, (the mailbox call is correct, sorry about the other misspellings. this terminal doesn't have a backspace key) redwood city is about 20 air miles south of san francisco, on the west side of san francisco bay. you can reach the p.p.s. bulletin board service through w6a
mt-0

73's and regards, kb6fva, david harris, assistant
e.c. for redwood city.

*** End of message from KB6FVA VIA
W6AMT-1, W6AMT

establish a unique award to encourage the completion of the first terrestrial transcontinental network link. This one-time award shall be known as the "Golden Packet" [Like the golden spike that completed the transcontinental railroad. - Ed.] and the regulations relating to it are listed below:

1. A transcontinental link must be established, with each terminus located within 100 kilometers of either the Atlantic or Pacific Ocean.
2. The system must consist of fixed terrestrial digital store-and-forward radio links using VHF (greater than 144.1 MHz), UHF or microwave frequencies. Use of HF, satellite, tropo, meteor-scatter or moonbounce channels is prohibited.
3. A valid two-way transmission and acknowledgment of previously unknown information (256 characters or more) must occur in less than ten minutes.
4. This competition is open to licensed North American amateurs, and no commercial links or services may be used in the path. Club stations are permitted.
5. Proof of the exchange must be submitted to the PPRS. Proof must include a list of the stations in the link, their locations, frequencies used and a copy of the text exchanged.
6. The reward shall consist of a suitably engraved plaque with the names of all participating stations listed which shall be presented to the ARRL. Each participating station shall receive either a plaque or a certificate.
7. Final decision on the award is subject to review and approval by the Board of Directors of the PPRS.

Editors note - The following was obtained by packet,
over the air, from the W6IXU bbs in San Luis Obispo on
145.01 MHz - 4/27/85.

Mailbox commands: List, Read, Send, Call, Usage, Quit,
Command: list all

(1) 4 lines from W6IXU to ALL entered Monday

01-Apr-85 at 2:25 AM

Messages to ALL will be deleted by SysOp after 2
weeks

(2) 3 lines from W6IXU to ALL entered Sunday

07-Apr-85 at 3:40 PM

How to get latest news about WESTNET

(3) 5 lines from W6IXU to ALL entered Friday

12-Apr-85 at 5:34 PM

How to find out about the latest changes to this
mailbox

(4) 20 lines from WB6UUT to ALL entered Friday

12-Apr-85 at 9:42 PM

For Sale: Complete Apple //e System with
Extensive Accessories

(5) 26 lines from W6IXU to ALL entered Friday

12-Apr-85 at 10:55 PM

Reach out and touch someone via NTS/packet

(6) 7 lines from NI6A to ALL entered Tuesday

16-Apr-85 at 12:16 AM

NEW PACKET RADIO ASSOCIATION FORMING IN NO
CAL

(7) 4 lines from NK6K to ALL entered Wednesday

17-Apr-85 at 12:38 AM

WESTNET MAP

(8) 5 lines from WA6YLB to ALL entered Wednesday

17-Apr-85 at 6:14 PM

WANTED DEAD OR ALIVE VANCOUVER OR OTHER TNC
FOR DIGIPEATER SERVICE

(9) 68 lines from NK6K to ALL entered Monday

22-Apr-85 at 11:47 AM

TNC sale of the century!

(10) 5 lines from AJ6T to ALL entered Wednesday

24-Apr-85 at 6:57 PM

Printer for Sale

(11) 24 lines from KB6FVA to ALL entered Wednesday

24-Apr-85 at 11:11 PM

new emergency operations trailer

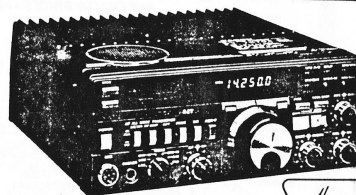
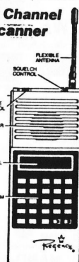


Queuent has all of Your Communication Needs for Business or Home

Keyboard Programmable Regency 20 Channel Scanner HX2000

FEATURES:

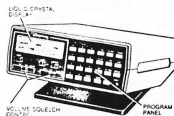
- **Keyboard Programmable** For the ultimate in versatility.
- **7 Bands** Covers 160MHz band, Aircraft, VHF High, UHF and DMF 17 and 2nd HF-Ham Bands.
- **20 Channels** For full coverage and easy selection.
- **No Crystals Required** Your choice of over 15,000 frequencies just by pushing a button.
- **Search or Scan** Scan frequencies you have entered or search for exciting new frequencies.
- **Search Increments** Choose frequency increments in the search mode.



FT-757GX
HF ALL MODE
COMPUTER AIDED TRANSCEIVER



Regency MX4000



Extended Coverage

In addition to normal scanner listening, the MX4000 offers 800 MHz Communications and Aircraft Band Coverage.

20 Channels, No Crystals

The Regency MX4000 provides the ease of computer controlled, touch-entry programming in a compact sized scanner for use at home or on the road. Enter your favorite frequencies by simply touching the numbered keyboard.



404-002

CODE PRACTICE SET

Perfect for beginner! Uses NYE VIKING Standard Key (Model No. 310-001), oscillator and amplifier, built-in 2" speaker—all mounted on a base with non-skid feet. Gives chirp free keying. Key is ideal for re-use with any xmtr.

WM. M. NYE
COMPANY



Model 310-003

SPEED-X KEYS

EasyTalk PRC-3X Personal Radio Communicator



FULL DUPLEX



QUEENT ELECTRONICS

1000 SO. BASCOM, SAN JOSE

PHONE: 998-5900

Open: Mon.-Sat. 9-6

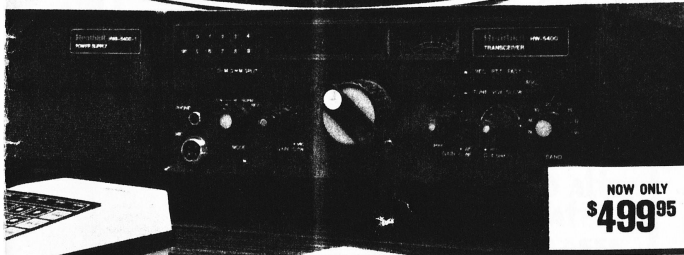
EASY WHEELCHAIR ACCESS

• ANTENNAS • HAM GEAR • CITIZEN'S BAND • COMMERCIAL AND INDUSTRIAL PARTS SUPPLY • SERVICE DEPARTMENT • ACOUSTIC SOUND DEMONSTRATION ROOM • COMPLETE STEREO HI/FI DEPARTMENT



COMING IN MAY - HD-5400
 PACKET RADIO INTERFACE KIT - \$299.95

Heath Computers & Electronics
ZENITH



NOW ONLY
\$499.95

CANTENNA
 WITH OIL
 \$25.90



AX-25
 MANUAL
 FOR
 SALE

HW-5400-1 SPECIFICATIONS - Line Voltage: 120/240 VAC, 50/60 Hz. **Output Voltage:** 13.8 VDC at rated load. **Protection:** 20-ampere DC output fuse, 7- and 4-ampere slow blow fuses for 120 and 240 VAC primaries, respectively. **Output Current:** As required by Transceiver, up to 18 (20 peak) amperes during transmit. **DC Output Regulation:** 7% from receiver load to transmit load at 120 VAC primary; 4% additional with AC primary at 110-130 or 220-260 VAC. **Ripple:** 50 mV or less at rated load. **Duty Cycle:** 9 amperes DC continuous, 18 amperes at 50% (5 min. on, 5 off). **Speaker:** 4 ohms impedance, 300-3000 Hz response, 2 watts peak power. **Clock:** 4-digit blue fluorescent display in 12 or 24 hour format, synchronized to line frequency. **Cabinet Dimensions:** 4 1/4" H x 8 1/2" W x 14" D (10.8 x 21.6 x 35.6 cm). **Net Weight:** 26 lbs. (11.8 kg).

HW-5400 SPECIFICATIONS - GENERAL: Overall Band Coverage: 80 through 10 meters, 10 MHz WWV; WARC bands operational. **Frequency Coverage:** 3.450 - 4.050, 6.950 - 7.350, 10.000 - 10.200, 13.950 - 14.400, 18.018 - 18.218, 20.950 - 21.500, 24.840 - 25.040, 28.000 - 29.750 MHz. **Frequency Readout:** 7-digit vacuum fluorescent display with special symbols. **Readout Symbols:** - (Split), - (Out of band), L (LSB), U (USB), C (CW Wide), C (CW Narrow), M (Memory), T (Transmit). **Readout Accuracy:** To nearest 50 Hz. **Frequency Control:** Synthesized. **Synthesized Lock Indicators:** Display reads 'PLL' and LEDs show which loops are unlocked. **Transmitter is disabled.** **Dual Rate Frequency Tuning:** Slow - 50 kHz per step, 1.25 kHz per knob rotation. Fast - 1 kHz per step, 25 kHz per knob rotation. **Tuning Backlash:** None. **Split Frequency Operation:** Transmit from memory frequency, receive from displayed frequency. **Memory:** Stores two frequencies per band. **Frequency Stability:** Less than 50 PPM drift from turn on. **Modes:** SSB Normal and Reverse; CW, Wide or Narrow. **Operating Temperature:** 0° to 40°C. **Power Requirements:** 11 to 16 VDC, 120/240 VAC with optional AC power supply. All specifications referenced to 13.8 VDC. **RECEIVER: Sensitivity:** Less than 0.35 μV for 10 dB, S + N/N. **Selectivity:** With standard filter, 2.0 kHz minimum at 6 dB to 6 kHz maximum at 60 dB; with HWA-5400-2 optional filter, 1.8 kHz minimum at 6 dB. CW active audio filter, 250 Hz minimum at 6 dB centered at 700 Hz. **Overall Gain:** Less than 1 μV for 0.25 watt audio output. **Audio Output:** 2 watts minimum into 4 ohms; less than 10% THD. **AGC:** Selectable Fast or Slow (no more than 8 dB audio change for a 100 dB or greater input signal range). **Intermodulation Distortion:** 70 dB minimum at 25 kHz. **Image Rejection:** 80 dB minimum. **IF Rejection:** 100 dB minimum. **IF Shift Tuning:** ± 600 Hz in Receive only. **Internally Generated Spurious Noise:** All below 1.0 μV. **Audio Hum and Noise:** Greater than 40 dB below maximum output. **Receiver Incremental Tuning:** ± 350 Hz. **TRANSMITTER: RF Output:** High SSB, 100 watts PEP power minimum, except 80 watts on 10 meters. CW, 100 watts minimum, except 80 watts on 10 meters. **Duty Cycle:** Continuous SSB (voice), 50% receive-transmit ratio on CW; 5 min. on 5 min. off. **Load Impedance:** At least 90% rated power with less than 2:1 SWR. Protected against high VSWR. **Carrier Suppression:** -50 dB minimum from a 100 watt, single-tone (1000 Hz). **Unwanted Sideband Suppression:** -50 dB minimum from a 100 watt, single-tone (1000 Hz). **Spurious Radiation:** -60 dB minimum, referenced to 100-watt output. **Third Order Distortions:** -30 dB minimum from a 100 watt PEP two-tone output. **T/R Operation:** SSB - PTT or VOX. CW - full break-in (simples only). **CW Sidetone:** 700 Hz to speaker or headphones. **Microphone Input:** High impedance (25k ohm) with -55 dBm rating. **Operation with External Linear Amplifier:** Linear relay, linear ALC, rear panel connections. **Front Panel Meter:** Automatically-switched S-units in Receive, ALC in Transmit. **Available Accessories:** HWA-5400-1 AC Power Supply with 12/24-hour clock and speaker, HWA-5400-2 2.1 kHz SSB Filter, HWA-5400-3 Frequency Entry Keypad kit. **Cabinet Dimensions:** 4 1/4" H x 11 1/4" W x 14" D (10.8 x 28.6 x 35.6 cm). **Weight:** 24 lbs. (10.9 kg).



Paara
P.O. BOX 911
Menlo Park, Ca. 94026

Andy Kor-sak
504 Lakemead Way
Redwood City CA 94062

VE3FZK