

MENLO PARK C. D. RADIO CLUB, K6YQT

# PAARA

## Graphs

vol. 26

April 1984



PALO ALTO AMATEUR RADIO ASSN., W6OTX



Patty Winter, N6BIS

\*\*\*\*\*  
 PAARAGRAPHs is the official newsletter of  
 the Palo Alto Amateur Radio Association &  
 the Menlo Park Civil Defence Radio Club.  
 \*\*\*\*\*

1984 CLUB OFFICERS

President	:	Dave Daniel	KB6WP	325-3347
Vice-President	:	Clif Keely	KA6JWA	364-4968
Secretary	:	Alan Larsen	WA6AZP	326-6430
Treasurer	:	Jack McEnnerney	W6LII	591-8526
Trustee, W6OTX	:	Fred Canham	K6YT	948-9238
Property	:	Ed Fairbanks	W6AIN	322-0319
Co-Property & Badges	:	Fred Canham	K6YT	948-9238
Refreshments	:	Frank Chandler	WB6QPV	322-7678
ARES Officer	:	Steve Stuntz	K6FS	322-7678
Club Historian	:	Jerry Zobel	W6ARA	322-0063
Field Day-CW	:	Ron Panton	W6VG	854-4814
Field Day-SSB	:	Gerry Tucker	WA6LNV	326-4908
Field Day-VHF/UHF	:	Alan Larsen	WA6AZP	326-6430
Field Day-Satellite	:	Ed Johnson	WB6CFW	296-8146
Club Nets	:	147.45 MHZ, Monday, 8:30 pm I.T. *		
		14.287 MHZ, 9:00 pm I.T.		

\*\*\*\*\*  
 BOARD OF DIRECTORS

Chairman	:	Dave Daniel	KB6WP
Members	:	Gerry Tucker	WA6LNV
	:	Ed Fairbanks	W6AIN
	:	Kevin Lapp	WA6FAC
	:	Wally Porter	K6URO
	:	Bill McElhinney	KA6LZI
	:	John Buonocore	KD6ZL
	:	Les Vickery	W6AKR
	:	Andy Anderson	K6EHS
	:	Ron Panton	W6VG

\*\*\*\*\*  
 PAARAGRAPHs STAFF

Editor	:	George Nixon	GI3OEN	854-6445
Advertising	:	Swede Swenson	N6CHL	368-8503
Mailing	:	Bill McElhinney	KA6LZI	325-9808

\*\*\*\*\*  
 PAARA POLICIES

Membership in PAARA is \$6.00 per calendar year (payable in January), which membership includes a subscription to PAARAGRAPHs. Freebee distribution is made to those who indicate an interest in the Club as an inducement to their becoming members, and is subject to change. Make payment to: PAARA, P.O. Box 911, Menlo Park, CA 94026.

Written contributions to the P.O. Box above, or to the Editor, 1140 Sherman Avenue, Menlo Park, CA 94025, tel. no. 854-6445. The deadline is three days after the Board of Directors meeting.

\*\*\*\*\*

Friday, April 6, 1984

7:30pm

R E G U L A R

M E E T I N G



WORLD-WIDE COMMUNICATION VIA SATELLITE

by

Bob Wiedeman, WA6FKK

If the sunspots are getting you down, relief is as close as the next PAARA meeting.

On your uppers? Been cleaned out by the I.R.S.? Fortunately the PAARA meeting is free!

Meeting to be held at the Menlo Park Recreation Centre, Alma at Mielke, Menlo Park. Future meetings: May 4, 1984; June 1, 1984.

Circle the Date

April 6, 1984

# PRESIDENT'S CORNER



Here we are starting the second quarter, and Christmas is around just three corners, hi hi. The March meeting was well attended and featured our own Patty Winter, N6BIS, looking very attractive in a natural linen-colour suit and purple blouse.

Patty showed us some slides she took while back at the Cape for the STS-9 launch. One slide was the original photo of Owen Garriott, W5IFI, which appeared in the February QST. Patty also secured for us the new 28 minute ARRI video tape covering the STS-9 mission. The tape is amateur radio oriented. PAARA can probably boast of another first since we are probably the first club to view this tape. Thanks again Patty, and be sure to turn in any mailing/phone expenses to Jack, our Treasurer.

Important notice: we have culled our PAARAGRAPHS mailing list at the last board meeting (7 Mar. 1984), and if you are a regular member, but have not paid your dues for 1984, this will be your last issue. So please pay up at the April meeting in order not to miss out on a single issue of this most informative and illustrious rag. (Ed.: straight woodpulp, Dave - only high quality paper has rag nowadays.)

Outcome of the first Field Day 1984 plan-



ning meeting follows: Ron Panton, W6VG, was selected as our hf/cw captain; Ed Johnson, WB6CFW, was coerced into another year as satellite captain; Alan Larsen, WA6AZP, was selected as VHF/UHF team captain; Mark Schutzer, KA6RMA, as Novice team captain; Gerry Tucker, WA6LNV, as hf/ssb team captain; and Clif and Sue Keely, KA6JWA, as food co-captains. Fred Canham, K6YT, agreed to oversee field day operations again this year but remarked that he would like to use his truck as a camping vehicle this year instead of a hauling/erecting device. We still have openings for site prep and equipment captains, are there any volunteers?

This year any paid-up club member can operate, but please schedule your operating with the appropriate team captain to avoid confusion. I will be passing a sign-up sheet around at the next meeting. Since this is a new style of operation with new team captains, we have to start organizing early.

Newsworthy points: Don Topp, W6CFZ, was caught red-handed giving a talk to the West Valley Radio Club on 10 metres (see, George, I saved you the trouble of correcting my spelling) FM. (Ed.: tnx.) K6RU is back home in time to work Clipperton; good to have you back, Cam. Dusty, K6MPN, took a break from the mike to have triple bypass surgery at Kaiser in Redwood City, and as of the last report, is doing well. Get well soon, Dusty; we miss you. Jerry Jensen, KB6VD, of Channel 7 fame is quite ill and our thoughts and prayers go out to him and his family.

Seen at the first flea market of 1984 were: K6YT, W6DU, W6CFZ, WB6NNL, N6CHI, WA6LNV, WA6LIJ, KA6RMA, KD6ID, WA6AZP, WA6ROM

KA6LZI, KD6ZI, W6NIR, and probably several more Paara members were there but not spotted.

See you next month, and thanks again to Bill for the donation of the public address system to PAARA. Thanks also to number one harmonic for the loan of her VCR and colour TV at the last meeting. Hope all could see and enjoy Patty's show. Hope you get a chance to work Clipperton, FDØXZ.

de Ms KB6WP

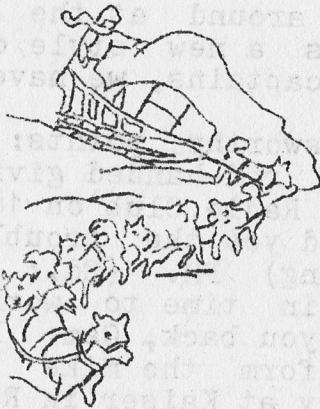
(Ed.: Thanks, Sue, for a very fine President's Corner. I always say that behind every great PAARA President stands a good woman.)

LETTER from:  
Dave Harper, WB6JFH  
Rt. 1, Box 446A  
Deer Park, WA 99006.

Hi gang,

I am writing to let you know how things are going up here in Deer Park. I am doing OK at work, still learning about signal generators. I am getting into some of the new auto testing systems. I am also getting into computers. I have purchased a computer from my company (Hewlett-Packard). I am typing this letter on an HP86B. I hope to learn some programming so that I can move to some of the auto test systems.

I ahve not heard any of the gang on the



air since last August. I know that the bands have been pretty bad lately. I hope in the coming months that the bands will get better so we can try some skeds again. I did hear from K6JJU around the first of the year about a sked that he has on Sundays, but I cannot get down to the Bay Area on Sunday mornings on forty metres yet. Maybe the band will get better later in the year.

I hope every one is doing well down there and no one has floated away. I expect to hear you in June. It looks like we will have a good Field Day this year with a lot of participation.

Well, I will say 73's for now and I hope to hear you on the air in the next few months.

David, WB6JFH, & family.



LETTER from:  
Tom Adler, KB6DMR  
January 19, 1984.

Dear PAARA members,

I've attended a few of your meetings and you have been kind in sending me free copies of your newsletter and so now I've decided to join as I have recently received my novice licence, KB6DMR.

I'm beginning a General Class on Tuesday coming and hopefully will be able to get the money together to buy a rig. Ideally, based on hearsay from the H.R.O. people, I'd like to purchase the Yaesu FT 757G as I'm inter-

## PART TIME HELP NEEDED

FALCON, a new, soon to be well known local producer of quality products for the Amateur market needs a few talented Hams to act as independent contractors on a part time basis.

We manufacture in Oregon. Engineering and Sales are local. See our January, February, and March ads in Ham Radio magazine for an idea of present products. Also check the January cover and lead article. The product line is rapidly growing.

An immediate need exists for two people:

We need a sales person to contact dealers, by telephone, and perform the steps needed to sign them on as FALCON dealers. VHF mobile amplifiers are part of the Falcon line and the sales manager of the number one (temporarily!) supplier in that field does his job primarily from home. You could do it all from home if that fits your desired life style.

We also need a skilled technician to build and test breadboards and engineering models and to help with pilot production. A good portion of this work will be done near the junction of Skyline and La Honda roads. Hours can be as flexible as you need.

To discuss these needs, or if you have other skills this emerging company can't live without, give Dan Peters a call at (415) 851-0942, anytime.

73





ested in its small size and apparent benefits.

My cw is slipping away from me so I'm considering buying an AEA KT-2 Keyer Trainer.

Anyway, I'm looking forward to participating in your next February meeting.

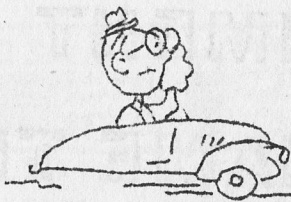
Sincerely,

Tom Adler, KB6DMR.

---

AMATEUR RADIO AND THE  
CALIFORNIA DMV.

by  
Jerry Starkey,  
WA6LIJ



For amateurs who carry towers, mounted antennas, etc. on top of vehicles, the California Motor Vehicle Code Section 35351 states: "No load upon a vehicle shall exceed a height of 14 feet, measured from the surface on which the vehicle stands."

For those who transport towers to Field Day, etc., and who are concerned with how far the tower can extend beyond the end of the trailer, Section 35410 states:

"Projections to the rear: 35410. The load upon any motor vehicle along or an independent load only upon a trailer or semitrailer shall not extend to the rear beyond the last point of support for a greater distance than that equal to two-thirds of the length of the wheelbase of the vehicle carrying such load, except that the wheelbase of a semitrailer shall be considered as the distance between the rearmost axle of the

# SHAVER RADIO, INC.

(408) 998-1103

1378 S. BASCOM AVE. SAN JOSE, CALIF.

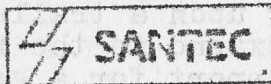
**WANTED!**  
**CLEAN USED HAM**  
**GEAR FOR CON-**  
**SIGNMENT SALE**

**YOU NAME THE PRICE**  
**CASH BONUS**  
**PAID ON THE SPOT TO**  
**BRING GEAR IN.....**

**ACT NOW!**

Don't delay.

YAECU  
KENWOOD  
TEN-TEC



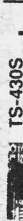
DRAKE  
SWAN  
COLLINS

# NOW! ARIZONA!

**FOR SIX STORE BUYING POWER!**

Phoenix amateurs welcome to our new store! Now take advantage of our buying power and get the best prices on the best products. Our exciting selection includes: Ham Radio, Over-the-horizon service.

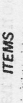
## KENWOOD SPECIALS



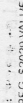
**TR-7950**  
CALL FOR YOUR LOW PRICES



**TR-2500/3500**  
CALL FOR YOUR LOW PRICES



**TS-930S**  
Plus 4 BONUS ITEMS



**TS-430S**  
REG \$2099 VALUE  
SAVE \$230.00

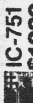


**BUY A TW-4000A FOR \$599.95**

**NEW!**

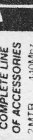


**SALE! SALE!**



**IC-751 \$1229**

**HAND-HELDS COMPLETE LINE OF ACCESSORIES**



2MTR 430MHZ IC USA2



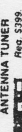
**FT-208R**



**FT-708R**



**FT-757GX**



**FT-268R**



**FT-2500/3500**



**FT-7950**



**KLM**



**KT-34A**



**KT-34XA**



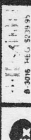
**KT-34XA**



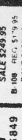
**KT-34XA**



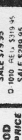
**KT-34XA**



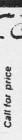
**Tri-Ex**



**W-51**



**W-51**



**W-51**



**W-51**



**ROTOR SALE**



**U-110**



**HD-73**



**BIRD Model 43**



**Model 43**



**Model 43**



**BIRD Model 43**



**Model 43**



**Model 43**

**FREE SHIPMENT**  
UPS 5 DAY DELIVERY (LIMITED ITEMS)

**TOLL-FREE PHONE**  
**800 854-6046**



**HAM RADIO OUTLET**

PHOENIX, AZ 85015  
1415 W. BUCKLEBOURNE  
PHOENIX, AZ 85015  
TEL: 480-242-3115

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

SALE! SALE!  
CALL FOR PRICE

towing vehicle and the rearmost axle of the semitrailer."

If the tower extends four feet or more beyond the bed of the trailer, Section 24604 requires two red lights at night or a 16" square red flag in daytime to be attached at the extreme end of the tower.

For amateurs who mobile, Section 27400 states: "No person operating any motor vehicle shall wear any headset covering, or any earplugs in, both ears." (there are some exceptions to this section but they do not mention ham radio.)

73

Jerry Starkey, WA6LIJ.



---

OWEN GARRIOTT, W5LFL, AT FOOTHILL

by

Rich Stiebel, W6APZ.

Astronaut ham Owen Garriott spoke at Foothill College at noon, February 24; his appearance had been arranged by N6IIU, Ted Harris, the emergency coordinator for the Red Cross and Stanford.



Owen spoke about his first space-related experience as a graduate student at Stanford, when he participated in tracking the first satellite, Sputnik. While listening to Sputnik's signal slowly fade in and out, he settled on his Ph.D dissertation topic: the effects of Faraday rotation on radio signals. This was the beginning of his interest in space communication.

Owen discussed the make-up of the ham gear used in the Space Lab mission. The transceiver was specially built by hams at Motorola and provided 4 watts of output. It had ten receive channels dedicated to US frequencies to spread out the up-link traffic. Additional channels were provided for European coverage, but the transceiver had only one transmit frequency. Owen could not listen on his transmit frequency, so the people who were calling on his frequency were wasting their time.

The antenna was built by the ham club at the Johnson Space Flight Centre and it had a VSWR of about 1.2 to 1. It was built in an aluminium box configuration which he attached to the window by velcro.

The transceiver lacked an external squelch control. The squelch circuit compared adjacent noise to the signal on the channel. When the signal on the channel was greater than the noise, the squelch opened. This sounded like a good automatic system that would relieve the astronaut of the task of adjusting the squelch. However, due to the Doppler shift and propagation of signals from distant points, many signals were shifted to the side of the channel, where the squelch circuit was listening. This resulted in the squelch shutting off the receiver even when there were strong signals

on the channel. When the squelch shut off the receiver, Owen could only shift to another channel in order to hear anything. The lack of a manual squelch control was the major drawback in his ham gear, Owen felt.

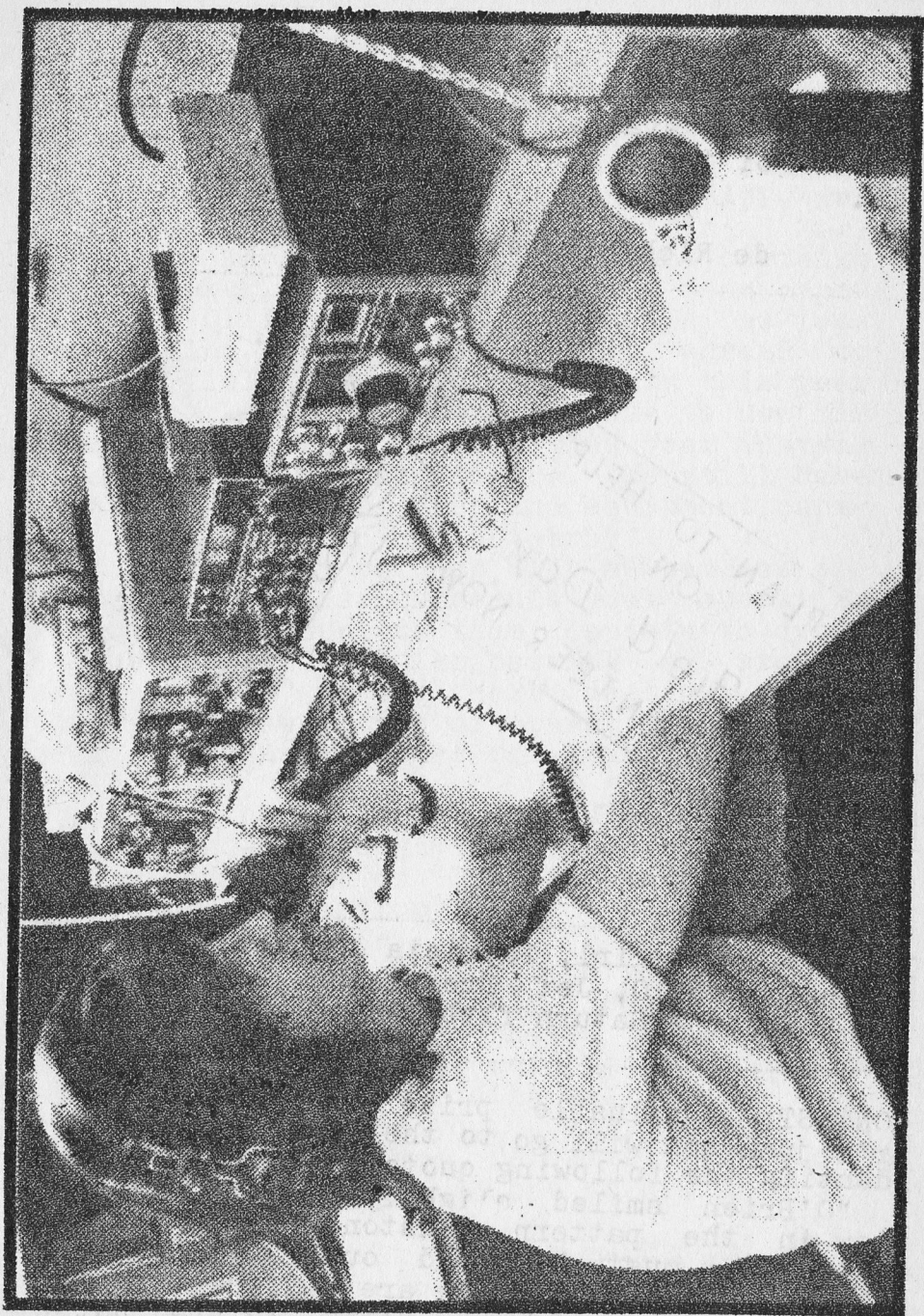
Amateur radio activities in space were governed by about a dozen rules. If the ham signals interfered with any scientific experiment, the amateur radio transmissions would have to stop. Ham transmissions were limited to one hour a day maximum, during off-duty hours. Owen felt that the rules were very reasonable and did not impede his operation.

Owen reported several QSO's with hams who were mobile, using modest equipment and mobile antennas. Apparently he was putting out an effective signal; I even picked him up on several passes with an HT inside the house using only a 5/8 wave antenna mounted on the HT!. While signal reports were best when the shuttle window with his antenna was pointing toward the earth, communication was possible with some stations even when the shuttle window was pointing away from the earth. Apparently the antenna had a large back lobe, or the spacecraft deflected the signals. The link margin was about '46db, according to a group of hams at San Jose City College who heard Owen transmitting.

Owen gave copies of the audio tapes he made in space to the ARRL. The ARRL may copy the tapes and sell them at cost.

W5LFL received two awards, one from the ARRL for an Outstanding Contribution to Ham Radio, and one from San Jose City College for his help in Promoting Electronic Education.

The entire talk was videotaped. Contact N6IIU to arrange to borrow a copy of the





tape which is available to ham clubs for the benefit of those who could not hear the talk.

de Rich Stiebel, W6APZ.

---



---

PHOTO: Cover girl, Patricia Winter, N6BIS, taken at W6VIO, Jet Propulsion Lab during the Voyager 1 Saturn flyby.

---

CONTEST: A valuable prize from your Editor's junk box will go to the first person to identify the following quotation:

"O'Brien smiled slightly. "You are a flaw in the pattern, Winston. You are a stain that must be wiped out. Did I not tell you just now that we are different from the persecutors of the past? We are not



content with negative obedience, nor even with the most abject submission. When finally you surrender to us, it must be of your own free will. We do not destroy the heretic because he resists us; so long as he resists us we never destroy him. We convert him, we capture his inner mind, we reshape him. We burn all evil and all illusion out of him; we bring him over to our side, not in appearance, but genuinely, heart and soul. We make him one of ourselves before we kill him. It is intolerable to us that an erroneous thought should exist anywhere in the world, however secret and powerless it may be. Even in the instant of death we cannot permit any deviation. In the old days the heretic walked to the stake still a heretic, proclaiming his heresy, exulting in it. Even the victim of the Russian purges could carry rebellion locked up in his skull as he walked down the passage waiting for the bullet. But we make the brain perfect before we blow it out. The command of the old despotisms was 'Thou shalt not.' The command of the totalitarians was "Thou shalt." Our command is 'Thou art.' No one whom we bring to this place ever stands out against us. Everyone is washed clean. Even those three miserable traitors in whose innocence you once believed - Jones, Aaronson, and Rutherford - in the end we broke them down. I took part in their interrogation myself. I saw them gradually worn down, whimpering, groveling, weeping - and in the end it was not with pain or fear, only with penitence. By the time we had finished with them they were only the shells of men. There was nothing left in them except sorrow for what they had done, and love of Big Brother. It was touching to see how they

loved him. They begged to be shot quickly, so that they could die while their minds were still clean."

Entries to be sent to the Editor, P.O. Box 911, Menlo Park, CA 94026.

PARAGRAPHS SLOGANS

FREEDOM IS SLAVERY

IGNORANCE IS STRENGTH

ELECTRONS MOVE FROM POSITIVE TO NEGATIVE.

# Quement offers

The Pro-Mark™ KWM-380

## Special!



NOW

**\$2995.00**



Rockwell  
International

OUR SPECIAL PRICE INCLUDES: ALL SERVICE BULLETINS  
INSTALLED, INCLUDING WARC BANDS.

MANY OPTIONS ALSO AVAILABLE

CALL FOR MORE COMPLETE DETAILS  
ON THIS SPECIAL OFFER!



**QUEMENT ELECTRONICS**

1000 SO. BASCOM AVE.  
SAN JOSE  
Phone 998-5900



MasterCard



RETURN REQUESTED

PARA, P.O. BOX 911  
MENLO PARK, CA 94026

BULK RATE

U.S. POSTAGE PAID  
PERMIT no. 320  
MENLO PARK, CA 94026