

MENLO PARK C.D. RADIO CLUB, K6YQT

PAARA

Graphs

vol. 26
MAR. 1984



PALO ALTO AMATEUR RADIO ASSN., W6OTX

Station of the month



Jack McEnnerney, W6LII

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

1984 CLUB OFFICERS

President	:	Dave Daniel	KB6WF	325-3347
Vice-President	:	Clif Keely	KA6JWA	364-4968
Secretary	:	Alan Larsen	WA6AZP	326-6430
Treasurer	:	Jack McEnnerney	W6LII	591-8526
Trustee, K6OTX	:	Fred Canham	K6YT	948-9238
Property	:	Ed Fairbanks	W6AIN	322-0319
Co-Property	:	Fred Canham	K6YT	948-9238
Refreshments	:	Frank Chandler	WB6JIV	322-7678
ARES Officer	:	Steve Stuntz	K6FS	322-4952
Club Historian	:	Jerry Zobel	W6ARA	322-0063
Badges	:	Fred Canham	K6YT	948-9238
Field Day-general	:	Fred Canham	K6YT	948-9238
Field Day-CW	:	Cam Pierce	K6RU	854-3055
Field Day-phone	:	Bob Wheeler	K6SEM	
Club Nets	:	147.45 MHz, Monday, 8:30 pm L.T. & 14.287 MHz, Monday, 9:00 pm L.T.		

BOARD OF DIRECTORS

Chairman	:	Dave Daniel	KB6WF
Members	:	Gerry Tucker	WA6LNV
	:	Ed Fairbanks	W6AIN
	:	Kevin Lapp	WA6FAC
	:	Wally Porter	K6URC
	:	Bill McElhinney	KA6LZI
	:	John Buonocore	KJ6ZL
	:	Les Vickery	W6AKR
	:	Andy Anderson	K6EHS
	:	Ron Fanton	W6VG

FAARAGRAPHS STAFF

Editor	:	George Nixon	G130EN	854-6445
Advertising	:	Swede Swenson	N6CHL	368-8503
Mailing	:	Bill McElhinney	KA6LZI	325-9808

FAARA POLICIES

Membership in FAARA is \$6.00 per calendar year (payable in January), which membership includes a subscription to FAARAGRAPHS. 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: FAARA, 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.

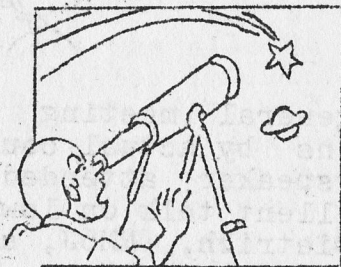
-3-

Friday, March 2, 1984.

7:30pm

R E G U L A R

M E E T I N G



A VIDEOTAPE OF THE SPACE SHUTTLE

(Tape from the ARRL)

with

extra slides and commentary by
our very own

Patty Winter, N6BIS.

If you feel spaced out, this may be the programme for you!

Honourable men? PAARA has lots of them. Come to the meeting and find out.

Meeting to be held at the Menlo Park Recreation Centre, Alma at Mielke, Menlo Park. Future meetings: April 6; May 4, 1984.

Circle the Date

March 2, 1984

PRESIDENT'S CORNER



The February general meeting was well attended, 61 persons by actual count. This time our mystery speaker attended, and he presented an excellent talk on low cost VHF antennas. Fred Dietrich, NM6J, showed us how, for less than five dollars, we could make a $5/8$ wavelength mobile two metre whip antenna. A comparable commercial whip costs upward of \$30.00.

Fred knows what he talks about since he holds a PHD, and he is a graduate of Ohio State University Antenna Labs. Fred currently holds down an 8 to 5 job at Ford Aerospace in antenna design. Thanks, Fred, for a job well done.

Also present at the meeting was our ARRL section manager, Rod Stafford, KB6ZV, who introduced himself to the membership and stated that he will be available to help PAARA should his services be needed. I met Rod last month at the January NCDX club meeting. He is a swell guy and an asset to the ARRL.

At the January meeting, many club members expressed the wish to have talks on antenna design. Fred's talk is the first speaker lined up by your officers to give you what you want. I want to personally thank Gerry Tucker, WA6LNV, for doing the leg work in

lining up Fred. Next meeting, we will feature a videotape compiled by the ARRL on the STS-9, Owen Garriott's shuttle mission. We plan on having two colour monitors so that people in the back will not have to strain so much to see. Patty Winter, N6BIS, will have some slides, also, to go along with the video extravaganza, so plan to attend.

Future guest speakers include Gary Caldwell, WA6VEH, with a talk and slide show on his latest DXpedition; and Tom Schiller, N6BT, on 40 metre antennas.

At this time I would like to make a correction to last month's President's Corner. It was incorrectly stated that Andy Anderson, N6EHS, was the contact for soliciting new members. In reality, it is Andy Brown, N6ESS, our Menlo Atherton resident ham that I was referring to. (Ed.: My fault.)

By the time you read this, we will have held our first committee meeting for Field Day 84 (scheduled for February 15). If you were not present and you have input, corner me at the March meeting. Our format is to change as is our call, formerly K6YT. The new call will be our very own W6OTX, and paid-up members will comprise at least 90% of our operators and loggers. More later on this.

Finally I want to thank Bill Jenkins, WB6LML, for the loan of a PA system for the last meeting. Bill is planning for me to try yet another system next month. He does not want me to swallow any pebbles or get my feet wet perfecting my oratorical skills. And last, but not least, our best to Cam Pierce, K6RU, who should be out of the hospital by the time you read this, and be well on the road to recovery. We miss you, Cam; get well quickly.

de Dave Daniel, KB6WP.

(Note: On page 7 is the diagram of the NM6J
2 metre Plastic Pipe Base Station Antenna.)



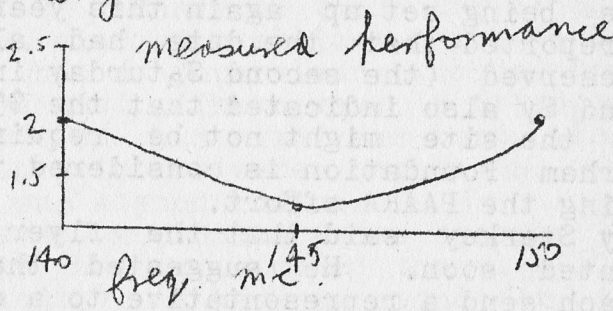
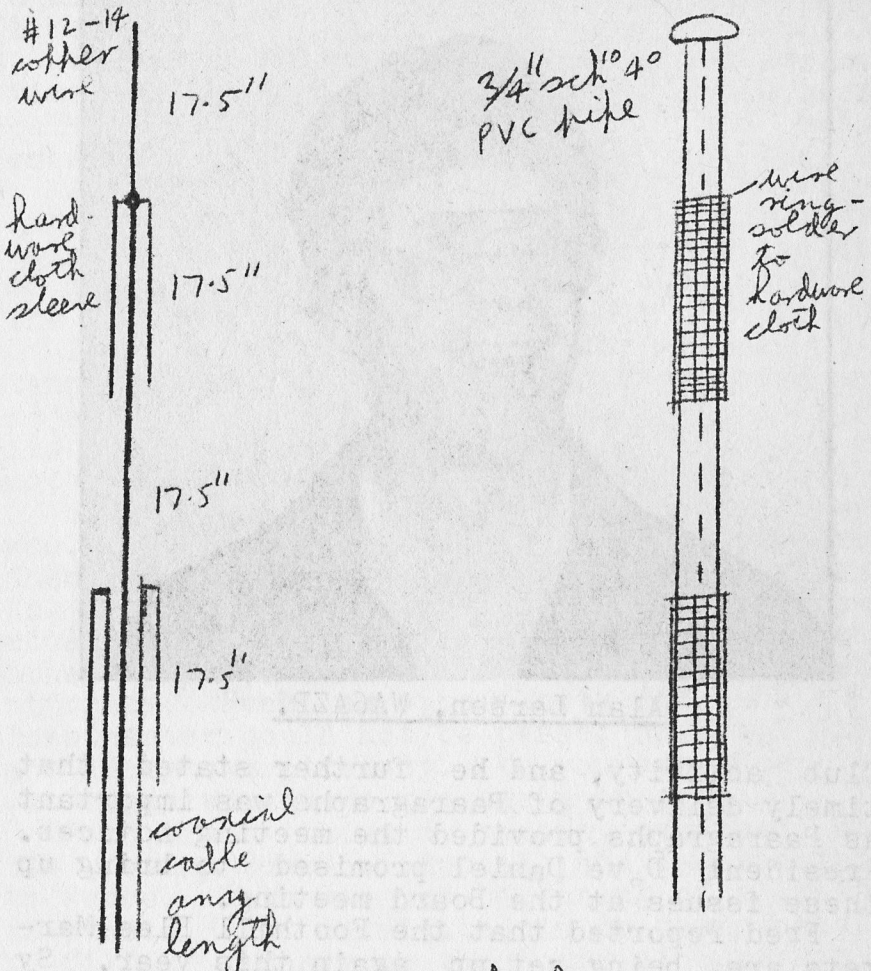
SECRETARY'S REPORT
by
Alan Larsen, WA6AZP.

General Meeting: The meeting was called to order at about the normal time of 7:30pm. Questions were raised about the publication of a treasurer's report. Irene pointed out that we may not want to publish all of the information in a report read by non-members. The treasurer read the Treasurer's report for the year 1983.

Several questions were raised about Paaragraphs, about the time of delivery, and about the grade of paper. Some wanted to know if there had been any change in delivery time with the new shape of Paaragraphs; some also felt that the new paper was not as good as the old paper and format. President Dave Daniels offered to take the matter up at the board meeting.

Gerry Tucker stated that the board preferred trying First Class mailing of issues to those club members who frequently received their Paaragraphs late. Fred Canham stated that Paaragraphs was an important

The NM6J 2 metre plastic pipe antenna.





Alan Larsen, WA6AZP.

Club activity, and he further stated that timely delivery of Paaragraphs was important as Paaragraphs provided the meeting notices. President D_ove Daniel promised to bring up these issues at the Board meeting.

Fred reported that the Foothill Flea Markets are being set up again this year. Sy Stein reported that the date had already been reserved (the second Saturday in August), and Sy also indicated that the \$50 use fee for the site might not be required if the Perham Foundation is considered to be sponsoring the PAARA effort.

Jerry Starkey said that the flyer would be printed soon. He suggested that the clubs each send a representative to a common

meeting to work out the details, and to make sure that prices, etc. on the flyer are correct. Fred was nominated to that committee.

Steve Stuntz reported that the City Emergency Operations Centre antenna blew down in the recent storms, and that it has been re-raised by the city. The old aluminium support has been replaced with steel which should be more rugged.

President Dave Daniel called for a volunteer to write about contests for Paaragraphs. There were no volunteers.

It seems that nobody worked any really interesting stuff lately. One of the few things mentioned was that a new satellite is transmitting a signal of the form: "D79 D80 D81 D80" etc.

A visitor, JH1HEZ, was introduced. He is working at SRI as an International Fellow for approximately a year. Since there is no reciprocal licencing between the U.S. and Japan, he has gone up and passed his General class exam for a U.S. licence.

President Dave Daniel mentioned that TE Systems had a good deal on a 2 metre mast mount preamp for about \$100.

There were no speakers at the meeting. Possibilities for future speakers were discussed.

Board Meeting: The January board meeting was called to order January 11, 1984, at 7:30pm by President Dave Daniel.

The subject of raffle prizes was brought up. Some members had thought that the raffle was a profit activity, but the actual figures revealed that the average expenditures were about \$27 per meeting, while the income was about half that.

As promised at the general meeting, the

subject of Paaragraphs was brought up. The desired paper characteristics were described by George Nixon, GI30EN, who prints the mag. The paper should be quite absorbent so that the ink will soak into the paper before the next sheet off the press drops onto it in the output stacker. It should also be rather opaque so that printing on the back side will not show through. The newsprint currently being used meets both of these requirements, and it is also reasonably priced at about \$1.80 per ream. The possibility of using different colors of paper for the cover was discussed.

Mention was made that the zip code for the PAARA post office address is 94026, while the zip code for all mail delivered in Menlo Park remains 94025.

The subject of Paaragraphs delivery speed was discussed. The last issue had been mailed 11 days in advance of the meeting. Many problems had occurred with delays in delivery to Menlo Park destinations in the last mailing. Bill plans to meet the Menlo Park Postmaster. Discussion was tabled pending the result of Bill's discussion with the Postmaster.

The next item discussed was the need to get new novice members (or any new members) into PAARA. This was particularly directed towards the 599 group. George Nixon suggested a display of a working H.F. station (at public gatherings), noting that two metres is no more impressive than a telephone. The station should actually be working other countries, as opposed to being a static display.

Jack suggested contacting the local high schools. He described efforts in San Carlos where they ran two classes per week with

about 15 people in each. John Buonocore suggested using the Scout Centre listings from the high school interest lists. He pointed out that it was really their teachers who pepped up their students and got them into the classes.

A discussion of field day efforts started. The possibility of using more transmitters, including other VHF/UHF stations besides the Oscar station, was discussed. Ron Pantan indicated an interest in CW activities (only).



THE ORIGIN OF
HAM CLUBS.

by

John Burgess, N7DCQ

(Provided by
Irene Lile, WB6RAF)

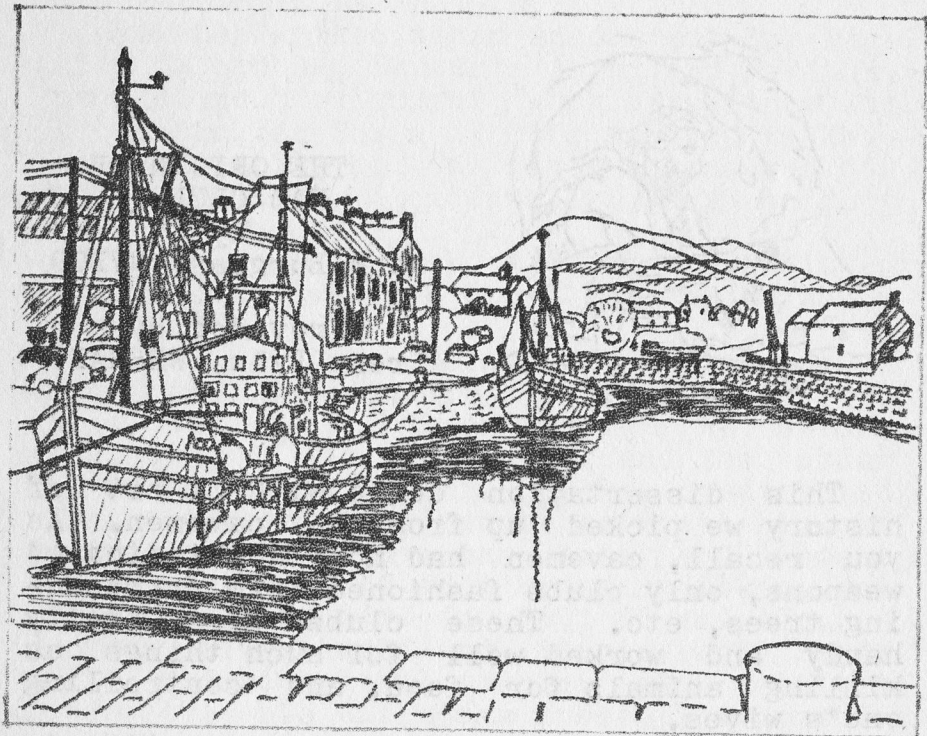
This dissertation deals with a bit of history we picked up from the cavemen. As you recall, cavemen had no sophisticated weapons, only clubs fashioned from surrounding trees, etc. These clubs were pretty handy and worked well for such things as killing animals for food, and controlling one's wives.

It seems that the pigs, however, (due to their lack of attention, additional padding from fat, etc.) would not usually respond to

the usual club, the pigs required a specialized club which was much larger than the normal one. This, then, was the world's first 'ham club'.

The wives of these cavemen amateurs also had difficulty getting their husband's attention using the regular-size club (for much the same reasons that they didn't work on pigs) and had to use the 'ham club' on them. So now you see how 'amateurs' became synonymous with 'hams'.

(Ed.: A word to the wise, Shannon. Watch out!)



Annalong Harbour, Northern Ireland.

LATE NEWS --

Father Thomas P. Tenmissen's rich life is now receiving its rich reward. On January 29 he was hospitalized with a heart attack which culminated in his death on February 7, 1984.

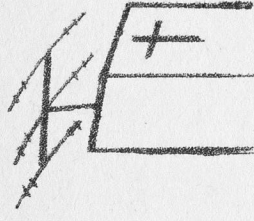
Some weeks previous, Father Tom dictated the enclosed letter intending to send it to all his friends. We are sending it along now in the hope that his efforts at generous acceptance of increasing disability will be a guide for others if and when they may be faced with a similar challenge.

Let us continue to remember Father Tom in our prayers.

Dear Friend,

I think it is about time I wrote to let you know what has happened in 1983.

First of all, I began to get quite ill so I was transferred here to St. Teresa's for medical attention. I came here on my birthday and have been under good medical care since. After I arrived I had to have some surgery done. First it



MARYKNOLL FATHERS
ST. TERESA'S RESIDENCE
MARYKNOLL, NEW YORK
10545

was two toes on my right foot. That did not heal so it became necessary to remove my right leg above the knee. Now I am in a wheelchair all the time, but I'm fine and in pretty good spirits.

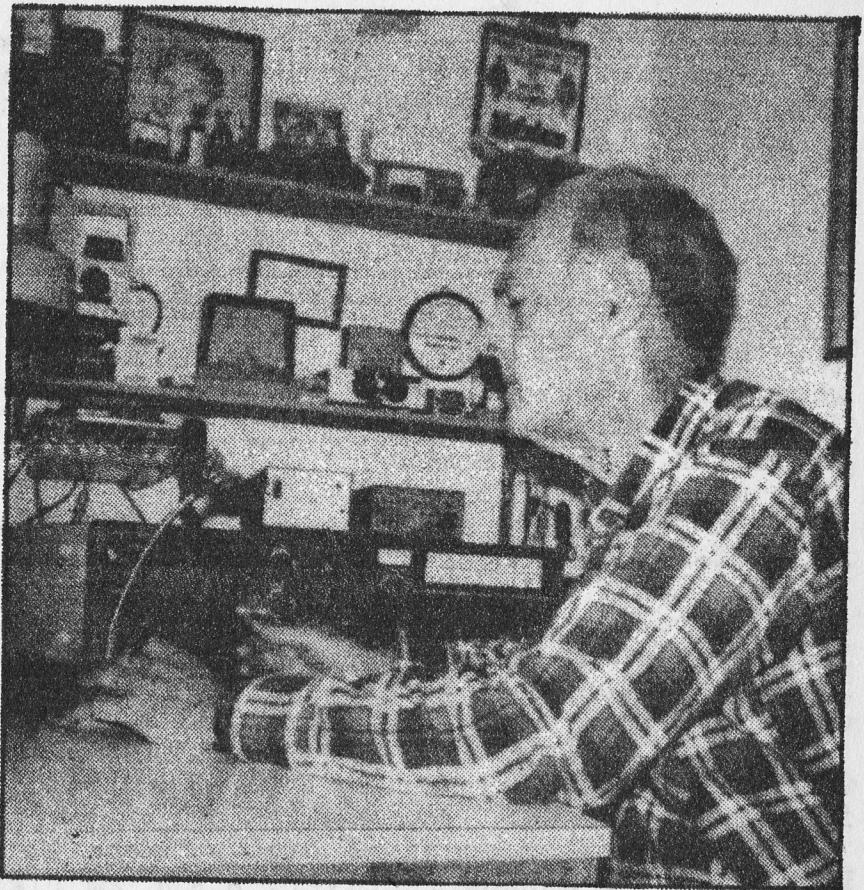
Soon I hope to have my ham radio hooked up. In the past I have been able to do some "hamming" and I hope soon to be more active in it. Thank God for that hobby!

1983 was a bad year for me in many ways. In June, I lost my kid brother Tony with a heart attack. In December I lost my sister Helen very suddenly. Although 1983 has been kind of rough, God has been good to me in many ways. Things are looking up for 1984.

Please be assured of my prayers for you during 1984. My best wishes for your happiness. I would very much appreciate hearing from you.

God bless you!

Father Tom Jermison



JACK McENNERNEY, W6LII

Station of the Month: Perched high above the town of San Carlos, on the skyline, is the QTH of the incoming PAARA Treasurer, Jack McEnnerney, W6LII. After driving up streets whose steepness rivals any in San Francisco, your Editor was rewarded with a beautiful view of San Carlos below, and of the Oakland Hills across the Bay. This is the view that Jack and Peggy McEnnerney have everyday from their home.

Jack was first licenced in 1933 as W6LII

when he lived in San Francisco near Mission Dolores. Jack studied at the University of California, Berkeley, and graduated in 1939 in accounting.

Jack's wife, Peggy, was born in Calcutta, India, the daughter of a British Army family.

Jack spent WWII in the China/India theatre and met Peggy there in 1943 where she worked in the U.S. War Shipping Administration in Bombay. They were married in 1946.



Jack has worked as an accountant for Pacific Telephone, Lenkurt, Ampex and Farinon, but his most colourful work experience was as Controller for a TV tube factory in Mexico, a posting he was given because of his fluent Spanish. Incidentally, Jack can copy cw in Spanish.

In ham radio, Jack was long associated with the San Carlos Radio Club (which is now inactive).

Jack's station consists of: a Yaesu 1012 D, a Drake 2B second receiver, a KDK 2m rig, and a hand-held Wilson 2m rig. He spends about 50% of his time on cw, and the other 50% on phone, mostly HF. He has constructed various accessories, and he services his own equipment. His antennas are: a 2 element 3-band quad on a 40 foot crank-up tower, and a 134 foot long wire for 160, 80 and 40m.

Jack plays golf and tennis, and Peggy plays champion-level tennis. Jack's latest interest is his Christmas present, a Commodore 64 and disc drive.

NOW! ARIZONA!

FOR SIX STORE BUYING POWER!

Phoenix amateurs welcome to our new store! Now take advantage of our increased buying power. Enjoy best bargain prices, complete stocks of leading brands, friendly helpful, over-the-counter service.

KENWOOD SPECIALS



TR-7950



TS-430S

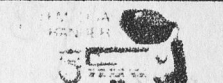
TR-2500/
TR-3500

CALL FOR
YOUR LOW
PRICES



TS-930S
Plus 4 BONUS
ITEMS

REG \$2029 VALUE
\$1799
SAVE \$230.00



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

Includes: 100% Money Back Guarantee
1 Year Free Service
1 Year Free Shipping
1 Year Free Battery
1 Year Free Power
1 Year Free Antenna

NEW!



ICOM

SALE! SALE!



IC-751
\$1229

HAND-HELDS

COMPLETE LINE
OF ACCESSORIES

2MTR 440MHz
IC 02AT IC 04AT

YAESU

CALL FOR
LOW PRICES
ON HAND-
HELDS
and all
YAESU
ITEMS

FT-208R

FT-708R

FT-757GX



FT-726R
EXCELLENT
FOR OSCAR



KLM

KT-34A
CALL FOR
PRICE
KT-34XA
CALL FOR
PRICE
SAVE!

Hi-Ex

W-51
SALE \$849
W-36
CALL FOR PRICE
LM-470D
CALL FOR PRICE

CALL FOR PRICE

B-3016 REG. \$239.95
SALE \$199.95
B-1016 REG. \$279.95
SALE \$249.95
B-100 REG. \$179.95
SALE \$159.95
B-235 REG. \$89.95
SALE \$79.95
D-1010 REG. \$319.95
SALE \$289.95

VIEWSTAR VS-1500A
ANTENNA TUNER



Reg. \$399.
SALE! Call

ROTOR SALE

U-110 HD-73

Call for
price

BIRD Model 43

Call for price
Most elements
in stock

SERVING AMATEURS
WORLDWIDE

Bob Farnero: W6RJ
Jim Rafferty: N6RU
and other well
known amateurs
provide

PERSONALIZED
SERVICE

FREE SHIPMENT

UPS SURFACE (Continental U.S.) (MOST ITEMS)

TOLL-FREE PHONE

800 854-6046

PHONE HOURS: 9:30 AM to 5:30 PM PACIFIC TIME.
STORE HOURS: 10 AM to 5:30 PM Mon. through Sat.

HAM
RADIO
OUTLET

ANAHEIM, CA 92801

2820 W. La Palma
(714) 761-3033 (213) 960-2040
Between Diamond & Kiwanis Berry Farm

BURLINGAME, CA 94010

999 Howard Ave
(415) 342-5757
3 miles south on 101 from S.F. Airport

OAKLAND, CA 94609

2811 Telegraph Ave
(415) 451-5757
 Hwy 24 Downtown, Left 27th on ramp

PHOENIX, AZ 85015

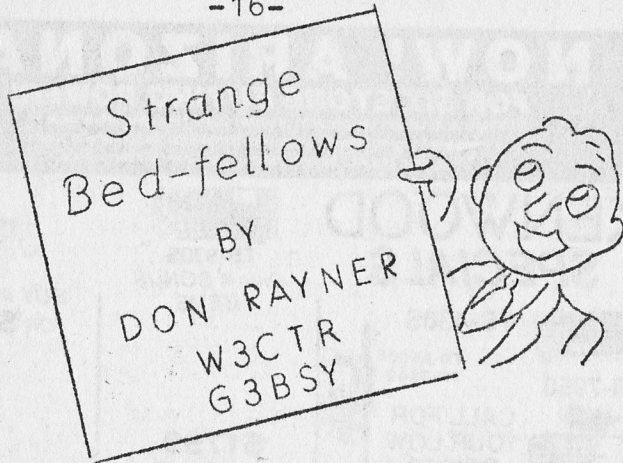
1702 W. Camelback Rd
(602) 242-3515
East of highway 17

SAN DIEGO, CA 92123

5375 Kearney Villa Rd
(619) 580-4900
 Hwy. 163 & Claremont Mesa Blvd

YAN NUYS, CA 91401

6265 Sepulveda Blvd
(818) 968-2212



(Ed.: This article by Don Rayner, W3CTR/G3BSY, is for any PAARA members contemplating a career in Politics.)

Having spent seven of my sixty-two years in the Royal Navy, and the balance of my working life in the private sector, I felt that it would be a shame if I were to pass on to that great Ham Shack in the sky without ever knowing the thrill of Political Life.

Recently, the opportunity to try the political plum presented itself, and I am now a Supervisor of Lower Yoder Township in Cambria County, Pennsylvania.

I had not thought of myself as being suited for a position on the lower rungs of the political ladder; rather I thought that I might make a good State Senator or State Governor. However, my only previous attempt at political office was in the mid 1950's when I ran for School Director in the same political subdivision. With a \$5.00 expenditure for cards to hand out with my name on them, and with some time spent walking the township knocking on doors, I was almost elected, losing by only thirty-five votes to

a high-powered candidate with party machine backing.

This, as far as I was concerned at the time, ended my political career. I had been called all kinds of names and I had been smeared in a most ugly fashion.

After retirement in February 1983, starting out with another job was the furthest thing from my mind. The events that led up to my election still have me wondering at the twists of Fate.

I had become involved locally with an attempt to prevent a local pub from using an adjacent vacant lot as a parking area for its very rowdy customers. These included a motor cycle gang and other undesirables.

Some local families had hired an attorney who, for a fee per family, would represent them. I decided to put my two cents worth in, too. The attorney for the zoning commission told me that I could either join the other group or that I could act as my own attorney. Such an opportunity for an ex-Toastmaster could not be passed up, so I did act as my own attorney. We won our case; it was appealed and we won again on appeal.

Soon after this, a vacancy occurred on the Zoning Board of Appeal, and I was asked to serve. This was the beginning of a train of events that culminated in my being asked to fill a vacancy on the Board of Supervisors (an elected position). The vacancy occurred when a Supervisor, who had been very ill, resigned. There were four more years to serve on his six year term. The other two supervisors were unanimous in saying that I was a good choice.

However, a problem arose because the Supervisors had not studied the elections laws sufficiently. I had to stand for election

in November because appointments made more than sixty days before the next election had to be confirmed by the voters in the next election. If the two Supervisors had been able to postpone the resignation of their colleague for a couple of weeks, I would have been able to hold the office for at least two more years without having to be elected.

Up to the time when I found out that I had to run for election, I had enjoyed the job, and had won a reputation for being a very good choice. "A capable fellow, and good for the Township", they said. Oh! How things change when elections enter into the picture!

We have in Johnstown the same political set-up which exists, I am sure, all over this great land. We have two large, powerful party machines that seem to be the tools of a few men. We have a local big-shot businessman who likes to play king-maker. (He is just as undesirable as the party machines in my book).

The party to which I belong approved of me as candidate for supervisor. A loser from the May primary received similar recognition from the opposition party. A third individual with a few connections (the past fire chief, the bargaining agent for the supermarket employees' union, etc.) decided to run a sticker campaign (here, only two candidates can be on the ballot). However, this candidate was expecting help from some very unusual sources. Remember the pub owner and his friends? Remember the king-maker and the not-so-honest political machines? My title becomes more understandable when all the facts come to light. Strange bed-fellows, they were indeed.

To digress for a moment, I must recount an incident that took place at a company ox roast some time after the pub case finished. The owner of the pub worked for the same company that I did, and he came to the ox roast. He is a latin gentleman and his appearance is rather sinister.

We got to discussing the case. At the end of our conversation, he reached out both hands, pulled down my head, and KISSED ME ON THE CHEEK!!! My friends told me that I was a marked man; they were joking, of course (I hope). That was over a year ago.

Now, back to the election and the hectic six weeks preceeding it. Our Chief of Police had been a victor in the primary election for the position of District Magistrate, which is to become vacant on January 1, 1984. Being of the same party as



me, it was natural to assume that we would work as a team to beat the opposition, and that the party would be working for our joint elections. WRONG!!

Our Police Chief was so afraid of losing that he enlisted my sticker opponent as a campaign worker, and he promised my opponent to work for my defeat. The king-maker, who always works in the shadows, threw his support and funds behind the Police Chief and the sticker candidate. The party desperately wanted to regain the District Magistrate job back into its fold, so they did not want to listen to the little fellow with problems at the supervisor level. This team of ne'er do wells and malcontents set out to destroy Don Rayner!!

They said: "After all, what has he ever done for the community? He is just a Johnny Bull who comes over here to try to run the show. He will increase taxes as soon as he gets elected." The party planned a Victory Party for election night, but I received no invitation.

On the election this time,,I spent a little more than I had spent on my previous run at public office. My cards cost me \$40.00. I made my own posters to place in the vehicles of friends, and at my local gas station.

I knocked on a lot of doors. There are four districts in this township. It is very hilly and rural in places; however, I covered it pretty well (although those streets on a slope did not do my plastic hip much good!)

Another irony was that my two supervisor colleagues were all for my winning, but they didn't want to work against the Police Chief because they wanted him to win the District Magistrate's job. They said: "So, Don, we hope that you win, but we can't do too much."

It was obvious to me that one district was more of a threat to my victory than the other three were so I decided to concentrate on that district (the largest one) on election day. In talking with voters, I had formed the opinion that most people do as they want and not as they are told when it comes to voting.

I arrived at the polling station early on November 9 to find our Police Chief with two Winnebago campers and twenty workers staked out on the parking lot. The pub owner was there in all his glory. However, my sticker opponent was not in evidence in the parking

lot. I found out that he was inside supervising the election. He was Judge of Election! I had not known that he held that office. My Republican opponent was there also (it was his home district). He is a nice fellow and he was running for the first time. He and I hit it off from the start.

We watched the 'workers' dashing around and pestering the voters as they arrived. I stood as close as allowed to the door and just said: "Hello, I'm Don Rayner."

It was a long day, and the weather was ideal, around seventy degrees and sunny. At the end of the day I was sun-burned.

After the polls closed, I went home and watched TV. Goldie, who is Judge of Election in our home district was hard at it counting. (We do not have voting machines or punched cards here yet.)

I don't know at what time I fell asleep that night, but I awoke at 7:30am next morning just as Goldie drove up after an all-night session of counting ballots. I was the apparent winner in all districts with a total of 47% of the vote in the three-way race. The Police Chief had won his Magistrate's job, and, immediately after the election, went on vacation as he had some leave accrued in the Police Department. We have already appointed a new chief, and we will let the greater district (part of the city) deal with the new Magistrate. The pub wants to reopen its case for a parking lot. Business is down with no off-street parking. Some of the motor cycle gang are in jail on drug charges; others have moved west where the climate is better (political as well as meteorological). So far I have helped negotiate a new garbage hauling contract, I have repaired one hand-held radio for the

road crew, and I have listened to a lot of complaints about bad roads.

Oh, yes, we passed the 1984 budget. NO NEW TAXES! I would like to vote myself a raise but twice nothing is nothing anyway! I sure wish it were that way in the State Capital and in Washington.

Just as a closer, let me tell you a little story. Several years ago, I was active in union affairs (1959-1963). Attending a lot of meetings made me well known, and, apparently, I was a dead ringer for the then Governor, William Scranton, of Pennsylvania. I can remember the county DA and others introducing me as him to the local news media, just for a lark.

One election, I was a poll watcher, and I went to the party HQ after the polls closed. I knocked to be admitted. The door was opened by a Ladies' Garment Workers Union agent from out of town. She took one look at me and hollered: "Holy Hell, it's Scranton", and sh slammed the door in my face.

I suppose that the ravages of time and a misspent middle age have erased all such likeness. I barely get a glance anymore.... except from Goldie, Bless her heart.



Quement offers

The Pro-Mark™ KWM-380

Special!



COLLINS SUGGESTED PRICE IS \$4996.00

NOW

\$2995.00

OUR SPECIAL PRICE INCLUDES: ALL SERVICE BULLETINS

INSTALLED, INCLUDING WARC BANDS.

MANY OPTIONS ALSO AVAILABLE

CALL FOR MORE COMPLETE DETAILS

ON THIS SPECIAL OFFER!



Rockwell
International



QUEMENT ELECTRONICS

1000 SO. BASCOM AVE.

SAN JOSE

Phone 998-5900



RETURN REQUESTED

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

BULK RATE

U.S. POSTAGE PAID

PERMIT no. 320
MENLO PARK, CA 94026