

PAARA

GRAPHS

NOVEMBER 1987



THE OFFICIAL NEWSLETTER
OF THE PALO ALTO AMATEUR
RADIO ASSOCIATION
AND
THE MENLO PARK C.D. AMATEUR RADIO CLUB

1987 Club Officers

President	Gerald Tucker	WA6LNV	326-1908
Vice-President	Andy Korsak	VE3FZK	366-5228
Secretary	Bill King	N6CHI	595-0258
Treasurer	Frank Chandler	WB6OPV	322-7678
Trustee, W6OTX	Fred Canham	K6YT	918-9238
Property	Ed Fairbanks	W6AIN	322-0319
Co-Property/Badges	Fred Canham	K6YT	918-9238
Refreshments	Gary Reinhardt	KB6PLW	367-7759
ARES Officer	Steve Stuntz	K6FS	322-4952
Club Historian	Jerry Zobel	W6ARA	322-0063

Board of Directors

Craig Smith	N6ITW	1987-8	326-8637
Ron Panton	W6VG	1987-8	854-4814
Gerry Wagstaffe	W6NIR	1987-8	325-4670
John Buonocore	KD6ZL	1986-7	366-1658
Mike Bach	WB6FFC	1986-7	592-2710
Perry Yelton	WR6E	1987-8	366-9481

PAARAGraphs Staff

Editor	Chuck Johnson	no call	408-258-4857
Associate Editor	Chuck Johnson	no call	408-258-4857
Advertising	Swede Swenson	N6CHL	368-9808
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 the Palo Alto Amateur Radio Association, P.O. Box 911, Menlo Park, CA 94026.

Club Net on 147.45 MHz Mondays at 8:30 P.M.

Meetings monthly at the Menlo Park Recreation Center at 7:30 P.M., the first Friday of the month.

• BULLETIN •

NOVEMBER 1987

From the Editor's Desk:

As the focus shifts to DX, and another 50 year anniversary, thank you for the contributions to this month's issue. Don't forget to plan ahead for the Christmas Dinner on December 14 (more details elsewhere). Have a good November & See You Next Month!
73 de Your Editor

Speaker of the Month:

NW6P TOM McSHANE on DX ===

(This is a broad topic summary by your editor. In view of the exceptional advance information provided by our November Guest Speaker, Tom's excellent memo is reproduced elsewhere in this issue, for full details on this most interesting topic.) Don't miss the meeting:

NOVEMBER THE SIXTH = FRIDAY = AT 7:30 P.M. !!!

As usual, Dinner With The Speaker at Su Hong's Restaurant on El Camino - Menlo Park - at 6:15 Meeting Evening.

Coming Attractions:

Our Program Chairman, Andy VE3FZK, is prospecting for additional gold for our speakership treasury. Be monitoring the PAARA Net and PAARAGRAPHS for latest developments.....

**NEXT-MEETING-IS-ON -
FRI - D E C - 4TH !!!**

PRESIDENT'S CORNER

Most importantly the Ampex Auction is over. The planning was a bit of a struggle for yours truly, but a number of people came forward the last week or two and accepted assignments without complaint. That made the actual auction itself quite a lot of fun. We registered over 300 participants and netted about \$1,100.00. This should keep PAARA activities marching forward for another year. Key players were: K6MPN for doughnuts & coffee; W6NIR and K6YT for the PAARA table; KA6LZI for table sales and impound; N6FEG for recording the location of the tables and chairs(!); W6AKR, NM6K for Registration; Chuck Johnson for signs; KD6ZL and K6URO for moving equipment; Dan STW for the microphone; and last but not least, GI3OEN and K6ARA for handling the money and accounting. Many others chipped in to make the day a success, including W6KJI who monitored our call in frequencies.

I hope everyone will sign up for the Christmas Dinner (details elsewhere).

At the November meeting we need 3 volunteers for the election committee. These people will propose at least one nomination for each PAARA officer position and one for each of the 3 open board member slots. The traditional way to avoid being nominated for President is to volunteer for the committee!

de WA6LNV

Reserve December 14
for
Christmas Dinner !!

This year's Christmas dinner will be at Dinah's Shack Restaurant at 4269 El Camino Real in Palo Alto (at Charleston). We will have a gift exchange (always fun). You don't have to participate, but if you want to bring a gift "of your own gender" - (that means men bring men's gifts, etc.) - limit the purchase value to \$5.

The menu will be:

Filet of Sole	\$12.25
Chicken Cordon Bleu	\$13.50
New York Steak	\$14.50

These prices include coffee, dessert and tip, etc. No host bar at 6:30 and dinner at 7:30. Reserve this date (December 14) & we will take a head count at the November meeting.

PAARA IN QST

ELEVEN CLUBS TO RECEIVE
50-YEAR AWARDS



The following ARRL affiliated clubs will be receiving their 50-year affiliation certificates this year: Palo Alto ARA (CA), Palomar RC (CA), Pueblo Ham RC (CO), Newton ARA (IA), Kalamazoo ARC (MI), Tu-Boro RC (NY), Greater Cincinnati ARA (OH), Black Hills ARA (SD), Ogden ARC (UT), Four Lakes ARC (WI) and Manteca ARC (CA). These clubs have represented ARRL and Amateur Radio in their communities since 1937. Congratulations!

Oct 87 QST 48

Letter From Tom NW6P

22342 Bahl Street
Cupertino, ca. 95014
Oct. 21, 1987

Chuck Johnson
Editor, PAARAGRAPHS
3309 Mt. Logan Drive
San Jose, Ca. 95127

Dear Chuck,

This is to confirm that I will be speaking at the November PAARA meeting. Originally I had been asked to speak about RFI/TVI. Frankly, I don't consider myself an expert. But having a 7 element tribander at 60 feet and a 2 element 40 meter beam at 70 feet means you'll get to know your neighbors real fast. I'm an "expert" by default!

I will touch on the TVI matter but my real interest is in DX. Last year the ARRL announced that it would make a certificate available to any ham who worked 100 countries during 1987. I decided to get the award. I created a database to track progress and by June 30th I'd worked 200 countries. I'm at 217 as of this date. My topic will be:

200 Countries in 180 Days

I'll bring some of the "tools of the trade" including my grayline globe, Kansas City Keyer, several atlases, QSL collection (I have cards from 255 different countries), K6HHD/W6GO QSL Managers List, copies of The DX Bulletin (a weekly DX Newsletter) and any other "show and tell" stuff I can think of.

If you need some bio data on me here it is:

Tom McShane, NW6P, 45 years old, lives in Cupertino. Married 3 kids 13, 15, 19. Ham since 1957. Got into DXing in 1985 with TS-430 and G5RV dipole antenna. Worked 160 countries on cw that year and decided to put up a tower and beams. Erected 55' heavy duty tower with 20' mast and hung a TH-7 (7 element tribander) at 60' and a 2 element 40 meter beam at 70'. Have worked about 265 countries with 255 confirmed. During 1987 I have worked 217 countries through Oct. 21st.

Education: B.E.E. Rensselaer Polytechnic Institute, M.B.A. Univ Chicago. Founder, Vadic Corp (Later merged and called Racal-Vadic), a modem manufacturer. Now working in family business, Birmark - a marketing motivation company in Cupertino.

If you need anything else call me at work (408) 996-8766 or at home (408) 738-0471. I am going to be mobile looking for PAARA members 11/6 just before 6:00pm on 145.23.

See you at the meeting.

73,

TOM

Tom McShane
NW6P

QST DE ROD KB6ZV

MONTHLY DIRECTOR'S REPORT de Rod Stafford, KB6ZV Director, Pacific Division

For those interested in antenna/ordinance cases, there is some good news. A Federal District Court Judge back east has used the 1985 FCC Order called PRB-1 to invalidate a local antenna ordinance that was overly restrictive. On September 25, 1987, the following bulletin was sent by WIAW.

"A Federal judge has relied on PRB-1 to void a local height limitation as applied to an Amateur Radio antenna. Andrew B. Bodony, K2LE, had brought suit in U.S. District Court for the Eastern District of New York to overturn denial by the Village of Sands Point of his application for a building permit for an 86-foot tower, retractable to 23 feet in height. In granting partial summary judgment in Bodony's favor, District Judge Jacob Mishler found PRB-1 to be a proper exercise of FCC authority and found that the Village was precluded from applying its 25 foot height limitation on accessory buildings to Bodony's proposed antenna. This court test of PRB-1 represents the first time a local zoning ordinance as applied to an Amateur Radio antenna has been declared invalid on the basis of PRB-1, and further strengthens the position of radio amateurs fighting unreasonable local ordinances."

This case could be very useful in overturning restrictive ordinances of local governments. There are currently several cases in the Pacific Division, most in the S.F. Bay Area, in various stages of litigation dealing with ordinances that most often restrict the height of an amateur antenna to 25 feet. I will try to keep Division members informed of the outcome of these very important cases. The Thernes case in Kentucky was given a lot of publicity as being the first blow struck by ham operators to obtain fair treatment by

local zoning officials and city councils. However, the Thernes case final judgment was based upon what is called a consent decree or a stipulated judgment. That is, both of the parties in a lawsuit agree that a judgment should be entered based upon their agreement. Many of the city attorneys who are advising the city councils are stressing that since it was a consent decree, it shouldn't be given much weight. I think when we start getting a few decisions like the New York case, the local officials will see the light.

At its July meeting, the ARRL Board of Directors decided to study whether amateur radio ought to have a Political Action Committee (PAC). A number of other national interest groups have PACs and the question was posed, "Shouldn't amateur radio have a PAC to promote its point of view on capitol hill?" A recent study was done on PACs and the results were kind of interesting. Apparently, you can buy access through a PAC. It will get your foot in the door. However, in controversial matters, the data only shows that PACs give money to officials because those officials agree with the PAC's point of view, i.e. the official would probably have voted that way anyway. End result, can't really tell whether the PACs are effective anyway. A few feelers were put out in Washington, D.C. about how hams would be perceived if they had a PAC. The response was that amateur radio has always enjoyed a lot of integrity on capitol hill and a PAC would probably undermine that view. So, at the present time, ARRPAC doesn't seem to be in the cards.

The new ARRL video "The New World of Amateur Radio" is now available to clubs to show at meetings or to show to non-ham groups. Contact Vice-Director Jim Knochenhauer, K6ITL, to request the video. Please try to get your request in at least 3 weeks before you want to the video so that there is time to mail it to you.

10-1-87

ABC'S OF RTTY 2 *

Signals received by the transceiver are presented to the TU in audio form. Usually, the audio is taken from the external speaker connection of the radio and presented to the TU input. Here the audio cable from the receiver is attached to the AUDIO IN jack. An external speaker is then attached via the EXTERNAL SPEAKER jack so that the received audio can also be heard.

In turn, signals generated by the computer are converted by the TU to audio tones. These tones are then sent to the transceiver's microphone input. The audio tones, called AFSK (audio frequency shift keying) signals, are cabled via the XCVR plug to the transceiver microphone jack. PTT (push-to-talk) control is cabled here too.

The tones used for amateur RTTY are similar to those used for computer communication by telephone. In each case a signal is represented by two tones, called MARK and SPACE. Generally, a mark is a "0" and a space is a "1". Instead of transmitting ones and zeros by phone, which cannot be done really, tones which represent these numbers are sent. For example, to send a 1010 we would send a mark, a space, a mark and a space. Marks and spaces are defined as specific audio frequencies. For example, for amateur RTTY the mark is a 2125 Hz tone and the space is a 2295 Hz tone. For phone-line work a different frequency set is used. Since the two tones for amateur radio RTTY are spaced 170 Hz apart and a signal sequence is represented by shifting between these tones, the signals are referred to as 170 Hz shift Audio Frequency Shift Keyed RTTY, or 170 Hz shift AFSK.

Now let's consider briefly the connection between the TU, or terminal unit, and your computer. Generally, only two TTL or RS-232 voltage level lines are required - one for data receive and one for data transmission. In addition, a ground reference line is needed.

With your computer, TU, and transceiver in place how do you go about making a contact or tuning in to listen to RTTY? First, let's set your transceiver in the proper mode and on the right frequency. Let's suppose that you are going to listen and make contacts on 20 meters. Hence, tune to about 14.080 and set your transceiver for 1.s.b. Tune around a bit until you hear signals that have two tones alternating. Second, you will need to properly tune in this signal in order to receive it.

Tuning RTTY can be critical. Remember, the two tones are only 170 Hz apart and the TU filters are generally very sharp. Your transceiver must be stable and able to tune to 10 Hz resolution. The TU includes on the front panel two LED's, one for mark and the other for space indication. To tune an RTTY signal, slowly turn your transceiver dial until the tones come up in frequency to 2295 and 2125 respectively. These tones are high in pitch, so tune slowly and watch the mark and space LED's; they should blink in sequence with the tones when properly tuned. If you are too low, only the mark LED will light. When your transceiver is turned just right, both LED's will light. At this point, with your computer operating, you should be receiving RTTY.-----to be continued-----

* Prepared & Written

By Harry Wijtman AE6M, Part 2 of 12.

HARRY WIJTMAN
2705 BONNIE DR.
SANTA CLARA CA 95051
PHONE 408-261-1118

VEC & FCC LINES

SUNNYVALE VEC ARC (Local License Exam Info.)
P.O. BOX 6014
SUNNYVALE, CA 94088
Ph. (408) 255-9000 [24 Hours]
QST QST QST

Sunnyvale VEC Test Site, 3rd Sunday of Month,
(starting 11/15) is Sunnyvale Parks & Rec.,
Fair Oaks Park, $\frac{1}{2}$ mile from 101 -- Fair Oaks
& Maude, Sunnyvale.

FCC (Call Sign Inquiries, etc.)
GETTYSBURG, PA [Call Wednesday for following
Saturday's & Monday's license calls as in FCC
computer bank].
Ph. (717) 337-1212

PACIFICON '87 was
Fine Business for K6MPN -
Congratulations OM !!!
(See Bottom of Page....)

FREE TECH INFO

Have you obtained your free copy of the Interference Handbook? (you paid for it April 15, 1987) For the 22¢ stamp on your envelope with a note: "I have a TVI problem. Please send me a free copy of the Interference Handbook" to FCC, 424 Customhouse, 555 Battery St., San Francisco, CA 94111. You will receive an excellent book. It contains considerable technical and manufacturer information. For example, did you know that Sony has an 800 number for info on their equipment? The book is a MUST for every Ham library.

73 JERRY WA6LIJ

DUSTY WINS BIG !

[QST de JOHN GORDANO K6JJU] - John's friend Landry (Dusty) Doster K6MPN walked away from PACIFICON '87 the big drawing winner of a KENWOOD TS-940-AT!!!!!!

WORLDWIDE DISTRIBUTION



HAM RADIO OUTLET

NEW OAKLAND
LOCATION

6 STORE BUYING POWER

ICOM IC-R71A



Superior Grade General Coverage Receiver

\$799

SALE! CALL FOR PRICE

ICOM IC-37A



IC-27A (25W 2m FM)

IC-27H (15W 2m FM)

IC-37A (25W 220MHz FM)

IC-47A (25W 10m FM)

CALL FOR LOW, LOW PRICE

ICOM IC-735



The Latest in ICOM's Long Line of HF Transceivers

CALL FOR LOW, LOW PRICE

ICOM IC-R7000



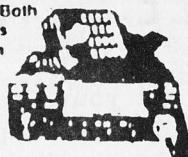
25 MHz-1300 MHz

IN STOCK FOR IMMEDIATE DELIVERY!

ICOM LATEST EDITION

IC-3200A DUAL BANDER

Covers Both
2 Meters
& 70 cm



AT GREAT LOW, LOW PRICES

ICOM IC-1271A



1.2 GHz Transceiver
The First Full-featured
1240-1300 MHz Transceiver
AT GREAT LOW, LOW PRICES

ICOM

HAND-HELDs

VHF/UHF



IC-02AT
IC-04AT



IC-2AT
IC-4AT



IC-3AT

**CALL FOR LOW,
LOW PRICE**

All Major Brands in Stock Now!


Bob Fornaro, W6RJ
President

Jim Anthony, N6RJ
VP of Sales & The
Banana Man

ANAHIM CA 93001
2920 W. La Sierra
(714) 781-3013 (714) 847-2040
Banana (Banana & Orange Berry Farm)

BURBANK CA 91501
900 Howard Ave.
(818) 547-5757 (Orange Mgr.) W6RDSV
5 miles south on 101 from 520

OAKLAND, CA 94608
2101 Washington St.
(415) 514-5757 (Don Mgr.) N6PDE
Mon. 11 to 2 Sat. 8 to 6 Sat.

SAN DIEGO, CA 92129
5375 Kearny Villa Rd.
(619) 580-4937 (John Mgr.) K6AIA
Mon. 10 to 2 Sat. 8 to 6 Sat.

PHOENIX, AZ 85019
1707 W. Camelback Rd.
(402) 262-1515 (Bob) K7RDH
Sun. 10 to 11 Sat. 10 to 11

VAN NUYS, CA 91401
8415 Cimarron Ridge Blvd.
(818) 988-2212 (Al Mgr.) K6YRA
Sun. 10 to 11 Sat. 10 to 11

**FREE
SHIPMENT**

CALL TOLL FREE (800) 854-6046

Toll Free including Alaska & Hawaii. Phone 8:00 AM to 6:00 PM Pacific Time. Catalogue and Annual Buyers' Guide List of over 1000
radio Components and Antenna Resources. Please add 10% for Postage & Handling. Minimum shipping \$5.00. No Minimum Order
Required. All prices subject to change without notice.





ICOM

ICOM's micro
2-meter handheld
...small in size, big
in features.

- 10 Memories
- DTMF
(IC- μ 2AT)
- 38 Built-In
Subaudible
Tones (USA
IC- μ 2AT)
- LCD Readout
- Pocket Size
- Wideband
Coverage
- BP-22, AC
Wall Charger,
Flexible
Antenna,
Wrist Strap,
Standard

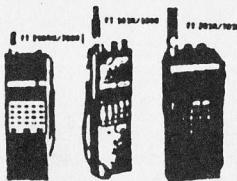
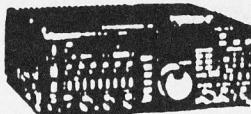


IC- μ 2

IC- μ 2A (USA Version)
IC- μ 2AT (USA Version)
IC- μ 2B (European Version)

2 Meter/FM Handheld

YAESU Transceivers



Highly Technical
**HAM RADIO
HOME STUDY
NOVICE VOICE COURSE**

• Updated menu & menu selection
• 6 stereo cassettes & memory cassette tapes
• 2 text books & code oscillator key & battery
• Color Turn Buttons for frequency &
• Standard course or a Ham 2 course to give you the
code & theory test at your home
• FCC license application forms & instructions to your
minimum ideal for spouses & the kids!

Ritron "Jobcom" Series COMMERCIAL 2-WAY RADIOS

For "In-Plant"
or "On-Site"
Applications!
Handheld
Units
From

\$195

Total Communications
"Person to Person"

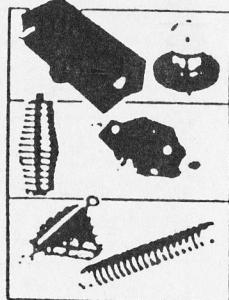


Most Add-On Accessories
In Stock!

Thousands of
COMMUNICATIONS
PARTS AND
ACCESSORIES!

In Stock Today And
Ready to Fill Any
Communications Need!

Qualified Staff To
Assist You!



**QUEMENT
ELECTRONICS**

Since
1933



1000 SOUTH BASCOM • SAN JOSE • 998-5900

Open Mon.-Sat. 9 A.M. to 6 P.M. • Closed Sunday

**PAARA
P.O. Box 911
Menlo Park
Ca. 94026**

Andy Korsak
504 Lakemead Way
Redwood City CA 94062
VE3FZK 87/01

First Class

