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504 Lakemead Way  
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vol. 23

1979

# PAARA

## Graphs



palo alto  
AMATEUR  
RADIO ASSN.

MENLO PARK C.D. RADIO CLUB, K6YQT

JANUARY 1979

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VOLUME 23 NUMBER 1

PAARAGraphs is the official organ of the PALO ALTO AMATEUR RADIC ASSOCIATION and the MENLO PARK CIVIL DEFENSE RADIO CLUB.

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PAARAGraphs STAFF

Editor :	Bob Baum	W6BFH	Mailing:	Ed Fairbanks	W6AIN
Printing :	Fred Canham	K6YT	Cover :	Sue Lindner	L6VLY

PAST CORNER: An entertaining story narrated by Ray Griese, K6FD, was presented at the December 1 meeting. The Saga of G7DW, Danny Wiel, it was concluded, did not establish a new country from the truck of his mainmast—the Halicrafters wouldn't work. 37 attended the meeting and those that didn't missed a good yarn.

R E G U L A R M E E T I N G

NEAR CORNER:  
Friday

January 5, 1979

7:30 p.m.

Jettie Hill, W6RFF, Section Communications Manager of the ARRL, will talk about the upcoming Simulated Emergency Test, his responsibility as SCM, a tie-in between local VHF and long-haul HF communications, recommended frequencies (Hz) of operation and efficient forms of traffic handling, formal and informal, during an emergency.

The new Gavel Pounder will start things off promptly between 7:30 and 7:45 breaking off eyeball QSO's which will resume over coffee and cookies immediately after the business part of the meeting. Raffle prizes will be chosen after Jettie's presentation and the hall clears at 10 p.m. An evening of education and recreation.

7:30 p.m., Friday, January 5, 1979. Room 15, Menlo Park Recreation Center, Alma Street and Mielke Dr. (C-5 on my map), Menlo Park.

+ + +

BOARD CORNER: The Board of Directors froze their toes for a while Wednesday, December 6, in the superbly insulated (when it gets cold it stays cold, when it's hot it stays hot—that's insulation, isn't it?) club trailer, but after shutting the windows and turning on the heat it turned pleasant in short order and Dusty's goose-bumps went away. Gerry, WA6LNV, got along without his parka. Missing was Bill, WB6LML. Bob, K6SEM, gave a report on the Pacific Division meeting at Foothill, which will be included farther down the line, as will a report by Steve, K6FS, who met with the Menlo Park City Manager on December 6. Funds for ARRL AREC arm-bands was requested by Steve but after discussion the matter was held over. The request made by Jerry, WA6LIJ, at the December 1 Club meeting for funds to help finance the ARRL 1979 Bay Area Convention was also held over, for clarification of the affair by the sponsoring group.

The meeting then turned into a bundle of discussion which finally centered on an analysis of ways or means to reset the RIT switch on a transceiver. Four methods were presented for further study by Bob, K6SEM. See TECHNICAL CORNER.

# # #

PUBLIC RELATIONS CORNER: Three visitors attended the December 1 meetings: Bob, W1ARR/6, now of Menlo Park, Jettie, W6HFF, from Cupertino, and Tim Lojko, all the way from Sonoma. Hope to see you again at the January meeting. Bring a friend.

+ + +

BASHFUL FRESH HAM CORNER: Bob, W6EFH, gave Bob, K6SEM, an empty wine bottle to use as a gavel at the Christmas party and looked over the year's activity with a little satisfaction with the low key position he took and with a great deal of satisfaction on the way the Club members got-with-it when the chips were down. At last count there were 112 members of whom 40 to 50 are active enough to come to our meetings; 18 check in regularly on 147.45MHz on Monday evenings at 8:30 p.m.; we got a trailer made for the Club generator; made a respectable showing at Field Day; had a highly successful Auction and Flea Market—both socially and financially—and over 40 attended the Christmas Party. Left undone was the repair of the Club trailer whose rusty sides are not getting prettier with time.

The year was not without problems. Terry, N6RY, gave up PAARGraphs to Bill, WA6OFN, whose beautiful copy was the best ever. Bill had to abandon the paper after a few months and it went up for grabs with no takers. But somehow something got put between the cover sheets, upside down, cut of order, backwards—and all blamed on Fred, K6YT, who was given credit for the printing. And as each month deadline came there was no time to get Fred to the trailer to do the printing so the non-editor did it his way. It may be that way again this month.

Bob, BFH Bob, expresses his thanks for all the help and cooperation shown by the Club members and wishes that every member could be president for a year to reinforce their feeling of what a fine group we have.

CONTRIBUTION CORNER: On the next page is data from a form that was submitted to the Board of Directors at the December 6 Board Meeting who recommended it be included in PAARAGraphs.

The Foothill Electronics Museum, located at Foothill College, is one of the outstanding museums of its kind in the country, and probably in the world. It includes many of the originals of the industry, nostalgic early commercial equipment, and information about the early pioneers in radio and electronics.

The passage of Proposition 13 has severely curtailed its operation and accessibility to the public. One of its fine services has been to conduct tours to show school children that it has not always been TV that goes through the ether. Another is the display of the FARS station, which is quite impressive, to interest some of those children in radio.

If you have the heart (and/or the money) they would appreciate a contribution to help maintain what they have. It is estimated it costs \$36,000 a year to keep it going. We don't expect this sheet will bring them that much, but if it brings anything it will help.

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EARTHQUAKE CORNER: "The effects of a postulated 8.3 Richter magnitude earthquake, as in 1906, on the San Andreas Fault occurring at 4:30 p.m. in 1972. (extracted from a NOAA study)

Exclusive of dam failures:

Deaths : 10,360  
Injuries : 40,360

Long term homeless:

Wet season : 33,200  
Dry season : 36,400  
Damage : \$20,000,000,000. (\$20 billion?)

Highways, Streets and Bridges: Twenty-five percent of freeway structures would be impassable. Major stretches of US 101 south of Candlestick Point would be under water. The Golden Gate Bridge Bay Bridge and San Mateo Bridge would be out of operation for indefinite period of time due to damage to the bridge structure and/or approaches.

Transportation: Railroad service would be out of operation for an indefinite period of time. Oakland International, Alameda NAS and Hamilton AFB would be out of operation for approximately one week. San Francisco International Airport would be out of operation for several weeks.

Electric Power: Major electric power failures throughout the nine county Bay Area. All standby power facilities would be needed in San Francisco, San Mateo and Santa Clara Counties. 50% of standby power would be needed in Marin, Contra Costa and Alameda Counties. Lesser amounts for the remaining Bay Area Counties.

Communications: All TV and radio facilities in San Francisco and San Mateo would be out of operation for a period of at least 24-hours. Elsewhere, approximately 1/3 of such facilities would be expected out of service for 24-hours. After 24 hours, 50% of Bay Area TV and radio facilities can be expected to resume operations.

Telephone Systems: 50% of telephone systems would be out of service in San Francisco, San Mateo, Santa Clara and Marin Counties for an indefinite period of time." ARES, Steve K6FS.

NAME TAG CORNER: Name tags arrived December 2 for Tom, KH6DZB, Ed, WA6FCQ, Pres, K6WD, Adrian, KA6ATG and John, KA6CUG, and will be available, for those who don't pick them up earlier, at the January meeting.

\* \* \*

EQUIPMENT CORNER: A continuation of "New Transciever Comparisons" by Bob Thompson, K6SSJ ---

ICOM IC-701:- The IC-701 from ICOM is similar in looks and size to the well known IC-211 all mode 2-meter transciever and they make a handsome pair on one's operating desk. The power supply for the 701 is a separate box which also contains the speaker. The speaker, an oval job, takes up most of the front of the P/S cabinet and has excellent quality for a communications unit. As in the Drake and other fully transistorized transcievers there is no transmitter tuning and likewise no receiver tuning other than the VFO and the continuously variable bandwidth control. There is nothing to buy with the 701. The price covers it all including a very handsome microphone with built in transistorized amplifier. A gain control in the base of the microphone and another gain control on the transmitter permit the operator a wide range of mic gain control. An RF speech processor is also incorporated as a standard feature and is highly effective. The unit also contains two digitally synthesized VFO's which are independently selectable so that no external VFO's are required. Most of the optional features of other rigs are built into the 701 and with its small size and weight it makes a very nice package for the travelling DXpeditioners.

The synthesized tuning takes a little getting used to especially on CW where the 100 Hz jumps are a little mind boggling at first. Once you get over that hang-up everything goes well. A microprocessor control unit is one of the only available accessories for use with this rig and apparently allows one to punch up the band and frequency without doing anything else. This could be a real joy for the blind or handicapped and might make life easier for most all.

There's not much one can say bad about the IC-701, nor would you wish to do so. If it has any disadvantages it's the lack of output power but the speech processing helps out a lot in the pile-ups and those that I have heard on the air sound great. One minor disadvantage of the rig is the control circuit for operating a

linear. That is turning it on. The output is not a relay closure but a 12 volt signal which must be run thru an external relay and thru its contacts to turn on most existing finals. It's not a big problem but a set of closing contacts would have eliminated the need for an external relay. Perhaps everything is diode switched inside and there are no relays with an external set of contacts. This is one point we didn't check out but the problem is not a serious one and can be handled by any competent ham. Other than the low output and no relay to control the final, the rig performed wonderfully well and is a real winner. It even has handles on the ends on the rig and P/S so you can easily run with it if you are trying to catch your plane for that rare DX spot.

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ASTERISK CORNER: Denotes the end of a 2-year appointment. (see page 2)

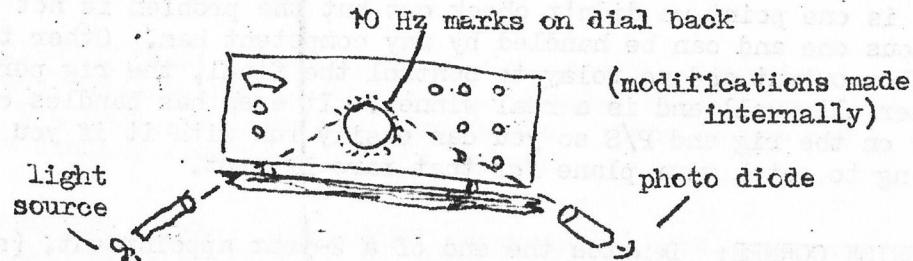
HAL MOORE CORNER: It seems odd that in the October 30th issue of Time magazine there was an article on an experimental transistor and nothing about it yet in any of the amateur radio publications.

Bell Telephone Physicist Raymond Dingle and his helpers built a semiconductor made of extremely thin alternate layers of aluminum gallium arsenide (which they doped) and gallium arsenide (which they left pure). They reasoned that any electrons donated by the impurity would tend to migrate to the adjoining un-doped gallium arsenide layer because of their tendency to seek what physicists call a lower energy state. Dingle explained: "It's rather like the inclination of water to flow downhill." The new design worked. Isolated from the obstructing impurities in the alternate layers electrons flowed at unprecedented velocities through the gallium arsenide layers nearly twice as fast at room temperatures and as much as 20 times as fast at lower temperatures.

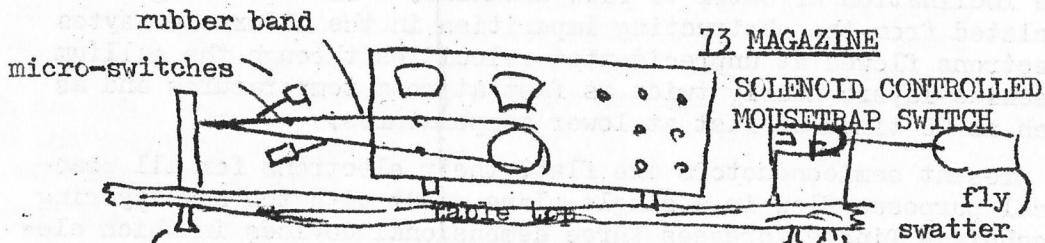
At present semiconductors are flat, their electrons for all practical purposes flow in a single plane. But with the new layering technique Dingle foresees three dimensional devices in which electrons flow in all directions. That could make possible even tinier circuitry that would make today's minuscule computers look like veritable dinosaiers. Hal, W6DEF

TECHNICAL CORNER: How to automatically turn off the RIT as might be created by popular Amateur Radio Magazines.

HAM RADIO MAGAZINE



Turn tuning dial 10 Hz or more, RIT switch pops out.



2 1/2" #14 FH wood screws, bronze for class, zinc chromate for the economy style. (Rick, WA6NCX, take note).

URGENT - SPECIAL NOTICE

Bob Wallace, K6OL, earthquake specialist, US Geological Survey, warns of possible intense seismic activity in the San Francisco Peninsula area. (Simulated) Peak Period of Probability (PPP) is toward the end of January, 1979, especially the weekend of 27-28. Maximum intensity in San Andreas/Hayward Fault region is expected to reach 8.3 Richter.

Immediate effect: Greater than that listed under Earthquake Corner,

Primary communication will be needed between municipal emergency operations centers in Menlo Park, Atherton, Woodside, Portola Valley and Redwood City; Red Cross shelters in those cities, and Red Cross Regional Headquarters in Burlingame. PAARA members and other interested amateurs should monitor 147.45 mHz simplex periodically for announcements starting 1800 PST Friday, January 26. Preliminary information will be QST'd on regular Monday night PAARA nets between 25 December and 22 January.

Steve, K6FS, EC.

UNCLASSIFIED CORNER: (for members and, as space permits, those interested in Club activities)

A. J. Anderson, K6EHS, has a Halicrafters SX96 MK-1 with matching speaker. Mint condition. Operating manual For \$50.00 Call Andy at 494 0831 or see him at the meeting.

Les McReynolds, WB6RNO, has the followinf items not now in use:

- 1 Heathkit receiver, Mohawk Model RX-1, all tubes and functions working, with manual. \$100.00 or offer.
- 1 Harvey-Wells transmitter, Bandmaster Senior, Model TBS-50C. An oldie formerly used by W6VO. Condition unknown..... \$25.00 or offer.

Call Les at 948 2777 if you are interested or know someone who is.

Ed, W6AIN, has some club surplus Coax. 100 ft cf RG-17A/U and 2 pieces, 12 and 45 ft, with aluminum tubing jacket, 1/2" dia. Call 322 0319.

CALGARY HAMS are looking for remote headed trunk mounted UHF rigs and multichannel VHF and UHF hand held units similar to Motorola HT-220 series. Contact Terry, VE6APE/W6, 567 South 8th St., San Jose.



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