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**vol. 25**

JANUARY 1982

# PAARA

## GRAPHS



**palo Alto  
AMATEUR  
RADIO ASSN.**

MENLO PARK C.D. RADIO CLUB, K6YQT



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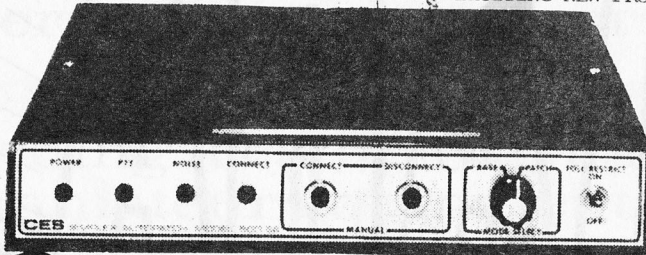
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## The CES Simplex Autopatch

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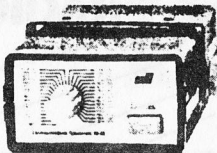


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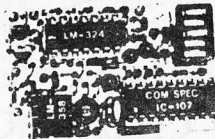
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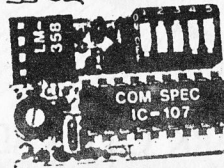
TE-64



TS-32



SS-32



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PAARagraphs is the official organ of  
The Palo Alto Amateur Radio Association & the Menlo Park Civil Defense Radio Club  
\*\*\*\*\*

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Vice-Pres. : Kevin Lapp WA6FAC 364-2654  
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Wagstaffe  
Treasurer : George Nixon GI3OEN 854-6445  
Trustee, K6OTX: Fred Canham K6YT 948-9238  
Property : Ed Fairbanks W6AIN 322-0319  
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Members : John KD6ZL  
Buonocore  
: Wally Porter K6URO  
: Alan Jenson W6UVP  
: Ed Fairbanks W6AIN  
: Bill KA6LZI  
McElhinney  
: Bob Wheeler K6SEM

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PAARA POLICIES

Membership in PAARA is \$6.00 per calendar year (payable in January), which membership includes a subscription to PAARagraphs. Freebee distribution to those who indicate an interest in the Club and as an inducement to their becoming members, and is subject to change with changing interests in the Club. Make payment to: PAARA, P.O. Box 911, Menlo Park, CA 94025.

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Written contributions to the P.O. Box above, or to the Editor, 1140 Sherman Avenue, Menlo Park, CA 94025. Deadline is two or three days after the Board of Director's meeting.

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Friday, January 8, 1982

7.30 pm

REGULAR MEETING

THE MYSTERIES OF RTTY REVEALED

by

Ron Rueter, WA6WEQ

Ron is an active member of a "nearby" radio club and will show us how to get started in RTTY, complete with view graphics, etc.

Future meetings: February 5, 1982; March 5, 1982.

Circle the Date.

January 8, 1982

**PRESIDENT'S CORNER:** If you were among the 75 or so PAARA members who did not attend the Christmas party, you missed a good time. A crowd of 42 fun-lovers gathered at Rick's Swiss Chalet in Palo Alto last Monday, and a good time was definitely had by all. Motivated, perhaps, by the fact that most of the guests introduced were XYL'S, Irene, WB6RAF, and Shannon, K6TNY, stood up and introduced each other. This could be the beginning of a close relationship! Speaking of XYL's, the ladies grabbed up most of the door prizes, including such sought-after items as the 1981 Foreign call book.

Vivian DiFranco, accompanied by her OM, Dan, represented CCRC and duly presented the coveted Field Day Championship Plaque to the ex-officio King of Field Day, Fred, K6YT.

Comments were heard about the good food; in the twinkling of an eye, the officers were installed; Vivian volunteered to be Madame Christmas and before ere a word was spoken, Dusty, K6MOM was cleaning his glasses and was appointed Santa for the gift exchange.

So much for parties. The offer of TTY's for \$75.00 at the last meeting was met with less than the thunder of anxious feet. They should be still available by next meeting, so let me know if you want one. We will even have an expert speaker to show us how to use it.

de WA6LNV

#### CLUB MEETING OF DECEMBER 4, 1981:

The club meeting of December, 4, 1981 was called to order by President Tucker with undue formality, Gerry in a 3 piece suit (all pieces matching, too) and a necktie. He shed the latter in a few minutes as he got down to work and we all breathed easier.

The nominating committee's slate of 1982 officers was elected by acclamation when no one dared to post any opposing candidates, though the proceeding was diverted by one interesting issue about which more later.

Thus the 1982 destinies of PAARA will be the responsibility of:

President Gerry Tucker WA6LNV  
Vice President Kevin Lapp WA6FHC  
Treasurer George Nixon GI3OEN  
Secretary Gerry Wagstaffe W6NIR

#### New Directors:

John Buonocore KD6ZL  
Wally Porter K6URO  
Allen Jenson W6UVP

#### Who join hold over directors:

Ed Fairbanks W6AIN  
Bill McElhinney KA6LZI  
Bob Wheeler K6SEM

Post 599 submitted a detailed report, via Chris WB6WBK, who announced acquisition of a hillside 450 MHz repeater site, next to a watertank on the Skyline, but urgent need for a waterproof secure enclosure, the size of a small rack. Sy WA6ROM invited the scouts on an acquisition foray at the Electronic Museum, and then Rob KA6NAN asked for concrete laying advice. The Post's new meeting place is still being sought.

Steve K6FS then read a letter of thanks from the VA for the VET-A-RUN communications and added his own appreciation for the participation of Bill W6DVB, Allen WA6AZP, Frank WB6QPV and Bill WB6LML.

John KD6ZL updated news of Seattle accident victim Jim K7UDG, now in traction, anticipating 7 months in a leg cast, and as John put it, presently "full of stainless steel rods", which are of course better, if more expensive, than re-bars. (Not funny, is it Jim?).

The evening's speaker was the venerable and congenial Jetty Hill, W6RFS, who gave a somewhat mundane account of emergency communication facilities, tie-in's with various traffic nets, and ARRL decentralization. His cross examination by Steve K6FS did not particularly enliven the subject; one felt that it would take an actual earthquake to make the whole ARRL traffic organization and its facilities and its leaders worth more than a ho-hum. One interesting item came through a crack in the SCM's speech: the problem of 144 MHz interference by and against HBO cable TV. Seems that leaky co-ax fittings in the cable system and radiation from unshielded pirate extension

tape for homeowners second TV's are the cause of this nation-wide mess on 144 MHz which the FCC and the ARRL are discussing... Bill, N6CHI, always a loyal PAARA member, apparently anticipated that the post-coffee break activity might be, we say a little uncharitably but bluntly, dull. He livened things up for the group by a one man objection to George GI30EN, being nominated and elected to Treasurer while at the same time holding down the Editorship of Paaragraphs, a conflict of interest and a monopoly of offices, he said. The membership, a little open-mouthed at the filibuster, were divided in their reaction: half feeling that Bill was obliquely suggesting that George be bonded (whether as Editor of Paaragraphs or as Treasurer was uncertain) and the other half thinking that George and Bill had personally interacted in some unhappy manner, possibly QRMing each other in a recent DX contest. Neither conclusion was on target. Nor was George, who rose to his feet, contended that the principal qualification of an editor was touch-typing, an ability he possessed and which he doubted that any other possible volunteer or draftee for the job could meet. But both George and the membership were off target in their reaction to Bill's tirade. It was strictly an impersonal issue: Bill and George respect and appreciate each other. The real story beneath all this was a sinister journalistic episode in Paaragraph's checkered history, which now must be told, to dispel any misconceptions.

Many months ago, Bill took over the editorship of Paaragraphs with naive anticipation of an interesting avocation. There was no hint of ominous matters to come. An anonymous (that's anonymous, Editor George, not an ominous) contribution was submitted, a tongue-in-cheek allegory putting down that most illustrious and self-decorated local group, the Happy Fliers. Bill, a Director himself at the time who saw no conflict of interest in his own dual capacity, innocently published this piece of irony, and then the fun began. Telephone calls demanding the name and whereabouts of the author of the villainous piece, came from the International Commander, the

International Vice Commander, and various other high dignitaries of the Unhappy Pilots, all demanding the name of the author of the iniquitous piece, and not believing poor Bill when he claimed, honestly, he did not know the man. The callers' anger focused then on Bill, who rightly or wrongly concluded that unless he took some drastic action, at the very least his beloved Porche might be filled with concrete to the window line, or his Belmont home be bombed from low flying Cessnas with bits and pieces of old direction finding gear. So Bill capitulated: he resigned the Paaragraphs editorship on the spot - after his first and only edition.

So now you know the real reason for Bill's objections to George's dual role: he, Bill had been there, and was protective concerning a colleague's participation in a dangerous undertaking. Bill, however, misjudged George, who as his call will prove, is a transplanted citizen of Belfast, and a few bombs don't bother George. He might even print these comments.

After the meeting, another meeting occurred, which had its points, too. You know we have always contended that PAARA is an interesting group. The quiet and amiable fellow next to you, discussing tower construction, might just be the prestigious retired president of Lockheed Airspace; and that smiling guy on the other side, joking about the Monday 2 meter net, might just be a renowned surgeon specializing in the nether geography, now retired (the surgeon, not the derriere).

President Gerry WA6LNV at the conclusion of the meeting introduced PAARA guest, Wally KA6JHO to the two Freds K6YT and W6NA and Gerry W6NIR. Wally had just retired as a Panam captain. A few minutes later, and all four were reminiscing on events nearly 40 years earlier when the quartet had been crew members on various flying Clippers in the Pacific War. Wally, reacquainted with friends after a four decade interval, recalled one Captain with whom he had later flown, who piloted the Philippine Clipper (a Martin M-130) from Wake Island to Midway while Pearl Harbor

was still smoking, and with shrapnel holes in her fusilage. Fred K6YT conceded that this was true, and recalled that the same captain, wide-eyed, told the Naval Commandant on landing at Midway, that Wake was besieged but he was pleased our US Navy had two cruisers heading full steam to relieve the beleaguered Wake Island garrison. An odd glaze passed over the Naval Commandant's eyes, and he asked the speed, size and course of the cruisers. The Captain explained that he had spotted the warships through a hole in the night clouds and had come down for a look. The Navy Commandant replied softly that the cruisers were Japanese and not our Navy steaming to the rescue. Wake fell, and the Philippine Clipper had evacuated a lucky few who thereby escaped four years of prison camp. Yes, the episode is true, Fred K6YT said, because I was on Midway at the time, and heard the report in person, and shortly thereafter was myself evacuated on the same clipper from Midway to Honolulu. Then our other Fred W6NA quietly confirmed the same story. He had been on Wake, and was actually on the same clipper when the mistaken sighting was made. Why the cruisers failed to shoot down the tin bird spying on them was either they were looking the other way, or thought that the clipper was one of their own Emily flying boats on patrol. Fred W6NA carefully refrained from admitting which one of them aboard the aircraft established the mistaken identity of the naval vessels. The rising sun was difficult to make out at midnight, of course, but Fred is not saying. You will read episodes such as this in Paragraphs from time to time. Even Morrison's official Naval History on the Pacific Wars is not in on them all, and meanwhile, congratulations to Wally KA6JHO, who found he had joined a group of old friends.

**Editor:** The above article was submitted unsigned, but I am in a position to say that it was authored by Gerry Wagstaffe, W6NIR.

What can I say after such a tour-de-force of writing? Only that the California Bar Assn.'s gain was the National Enquirer's loss!

de George, GI3OEN.

**HOW PARAGRAPHS IS PRODUCED:** Since the untimely death of Bob Baum, W6BEH, who edited the magazine very capably for several years, PARAGRAPHS production has tended to be a problem. Below is a description of how it is produced.

Firstly, articles are written as a regular feature by several persons. The President's Corner is written by Gerry Tucker, WA6LNV, The Club Meeting Report and the Board Meeting Report are written by the Secretary, Gerry Wagstaffe, W6NIR, and the Post 599 Corner is written by Art Adams, KA6POV. Other regular features are the Want Ads, the Silent Keys and the New Members.

Other articles are sometimes submitted for inclusion in the magazine. These may be solicited or unsolicited.

Next, the Editor types all articles into camera-ready form and adds sufficient verbiage to fill up all pages. In this step, all is grist for the mill. Each page in PARAGRAPHS corresponds to an 8½" X 11" page of camera-ready copy. The copy is photographically reduced in the printing process.

Next, the camera-ready copy goes to Dave Daniel, KB6WP, who takes it to Mellonics in Sunnyvale, where it is printed.

Next, the printed copy goes to Ed Fairbanks, W6AIN, who keeps a mailing list, and who does the actual mailing. Bill McElhinney, KA6LZI, is now helping Ed with the mailing.

de George, GI3OEN

#### VIVA THE AUCTION

"You want to know WHAT?," the voice exploded in my ear. Moving the telephone receiver farther away I repeated my question about what had he bought at the 1971 auction. I explained that PAARA had just had its 1981 auction and I thought it would be interesting to follow up some of those who had made purchases in

1971. Since he was listed as a buyer I wanted to know if he remembered what he had bought and what happened to it.

Again the loud voice, "Hey, feller, that was 10 years ago." The man began to laugh. "How do you expect me to remember that far back when I have trouble remembering what I did yesterday." He was still laughing at his own joke when he hung up.

I went back to the list of sales made at the auction. The sheet contained, among other entries, the names and addresses of the buyers and the sale price of the item, but the nature of the item was not mentioned. Unfortunately the cashier had had each buyer write his own name and address as he paid and some of the writing was of very poor quality. Those names that were undecipherable had to be eliminated. Other names of buyers were from outside the area. Other names were not listed in the telephone book.

I finally found one buyer from San Mateo who was in the phone book. I called. The man was sympathetic. "I wish I could help you," he said, "but I go to all the auctions and flea markets held in this area. I get my kicks buying things at one and usually selling at another. I couldn't possibly remember what I bought at the PAARA auction in 1971. Sorry." My research was not being as productive as I had hoped it would be.

I wondered what else would be of interest about an event that occurred 10 years ago. Would anyone be interested in how many doughnuts were sold or that the coffee and doughnuts operation came within \$1.45 of breaking even? Or that the auction and flea market was held in the Ampex cafeteria, just as it was this year, but the hours were 7 p.m. to midnight? Or

that the net receipts to PAARA were \$176.37? I did not think so.

Again I went through the buyers list. There was one entry I had passed over because the name and address was a scrawl. However, the buyer had printed his call, W60FN. A quick look at the Call Book showed that call to belong to an Everett Davis of Palo Alto. And his name was listed in the telephone book.

"Why yes," said Mr. Davis, "I remember the PAARA Auction of 1971, it was a good show. Do I remember what I bought there? Certainly. I bought a Globe Matcher Jr. antenna tuner."

"And what finally happened to the tuner," I asked.

"I can answer that very easily," he replied, "it is right here in my shack. I use it whenever I go on 10 meters. It has worked beautifully for me and I wouldn't sell it or trade it for anything else."

Obviously an auction of radio gear can be many things to many people. Some buy with the intention of selling at the next flea market. For others it is an opportunity to get non-functioning apparatus cheap to be cannabilized for parts. Still others watch for bargains and purchase for a reasonable amount a piece of gear that will be used for years. There are many reasons why we buy. But most of all to everyone it is part of the fun of ham radio.

### Globe Matcher Jr.,



AT-3

Wired	\$15.95
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Antenna tuner for power inputs 100w CW, 75w PEP, or less. Substantial amount of harmonic attenuation when properly tuned. Aids matching Xmitter output to various antennas. Unbalanced output. Forward Look cabinet of steel for TVI-prevention.

From "The Repeater" October 1981  
Published by The Grizzly Peak  
Amateur Club:

### A New Problem Solver

The following is reprinted from  
VICIOUS CIRCLES AND INFINITY, An  
Anthology of Paradoxes, by Patrick  
Hughes and George Brecht. We  
thank WA6DMA for calling this  
little item to our attention.

Herewith are presented do-it-  
yourself plans for constructing  
a computer that will answer ques-  
tions not resolvable by any other  
present machine. Among its many  
advantages, MINIAC is (1) small  
enough to carry in ones watch  
pocket; (2) inexpensive; (3) in-  
fallible; (4) easy to build; (5)  
child's play to operate.

To build MINIAC:

1. Obtain a penny. (The sub-  
stitution of a ha'penny will not  
materially affect MINIAC's opera-  
tion.)
2. Typewrite the words YES and NO  
on two pieces of paper and glue one  
to each side of the penny.

To operate MINIAC:

1. Hold MINIAC on the thumb and  
forefinger (either hand, either  
side up) and ask it a question A  
(e.g. 'Will it rain tomorrow?').
2. Flip MINIAC and allow it to  
come to rest.
3. Note the answer, either YES or  
NO.

Now MINIAC has given us a true  
answer or a false answer. To de-  
termine which;

4. Hold MINIAC as in operating  
instruction 1, ask the question  
B: 'Will your present answer have  
the same truth-value as your pre-  
vious answer?' and flip.
5. Note MINIAC's response to this  
question, either YES or NO.

Suppose MINIAC's answer to ques-  
tion B is YES. This is either a  
true answer or a false answer. If  
true, then it is true that the  
answer to question A has the same  
truth-value as the answer to ques-  
tion B, hence the answer to question

A was a true answer; if false,  
then it is false that the answer  
to question A has the same truth-  
value as the answer to question B  
(which is false), hence the answer  
to question A was a true answer.  
In either case, if MINIAC answers  
YES to question B, then its answer  
to question A was a true answer.  
If MINIAC answers questions B with  
NO, a similar line of reasoning  
shows that its answer to question  
A was a false answer.

The electronic character of MINIAC  
is obvious from the fact that there  
are two free electrons in the outer  
shell of the atom.

From SCCARA-GRAM November 1981  
Published by Santa Clara County  
Amateur Radio Association:

### TVI - RFI ?

Are you getting it in excessive  
amounts....or are you causing  
some...and don't know what to do  
about it?

An old standby, ARRL Publication,  
"Radio Frequency Interference" at  
\$3.50 (we bought ours at Qument's)  
is highly recommended reading as a  
start.

A brand new publication titled  
"Handbook of Local Interference  
Committees" has just been announced  
by ARRL and is available free to  
clubs from them. This covers the  
more recent jamming type problems.

If you want to talk to or  
complain to FCC, there telephone  
number is 415/556-7701, or write  
to: FCC, 555 Battery St., Room 423,  
San Francisco, CA 94111. The phone  
number for their general information



recording is 415/556-7700, which also gives examination days, times, etc.

Several years ago, W6BIP from San Francisco put on a top notch program for SCCARA members on this subject.

An elderly driver on a busy freeway in a huge metropolitan area was bewildered by the missile-like speed of the other cars. He drove at his usual rate, slower than minimum.

A police car overtook him. "I suppose you know why I stopped you?" the officer said.

"Sure do," the old-timer replied. "I am the only one you could catch."

The Oregon Freemason

DEFENCE HF COMMUNICATIONS. An interesting article on this subject appeared in the October 1981 issue of Radio Communication, published by the Radio Society of Great Britain. The following is a summary of that article.

From 1965 to 1975, it was believed that defence communications would be based on satellite systems. The second world war had shown how vulnerable HF is to interception and direction-finding; and multipath propagation severely limited maximum rate of traffic.

Recently, however, there has been a shift back to such ancient systems as low-speed RTTY (50-75 baud), unprocessed speech (ssb), and even hand-speed morse.

This picture may not conform to the accepted image of defence radio communication and seems "old hat" when compared with wideband satellite systems, microwave line-of-sight or tropospheric scatter systems, with their capability of providing multi-channel, digitally-encrypted links carrying speech and high-speed data.

It is now believed, however, that in war-time, an orbiting satellite would be vulnerable to enemy action.

Another factor, not specifically related to frequency, that is of concern is the susceptability of equipment to the destructive electromagnetic pulse (emp) that would follow a nuclear explosion in the upper atmosphere. Because of the extremely rapid rise time of an emp normal surge and static protection provided on solid state communications equipment is unlikely to prevent damage.

Apparently a single nuclear explosion 300 miles high could devastate unprotected electronic systems over much of a continent.

When Western military experts examined the communications equipment on board a Russian MIG-25 which landed in Japan in 1976, flown there by a defector, they received a shock. The body design was unexpected. The body shell was in the form of a Faraday cage. Although the on-board computers and control systems used up-to-date designs, they employed a host of miniature vacuum tubes. The correct interpretation of this is that the Russians were already designing for maximum protection against emp. Vacuum tubes are many times more resistant to emp than solid-state electronics. There is no doubt that solid-state devices are, and seem likely to remain, extremely vulnerable to lightning discharges, static build-up, etc, particularly when connected to large antenna systems.

While most of us (outside of ARES may feel that planning to have a working station after a nuclear explosion is not too important, emp protection may be leading to a revival of thermionic devices (vacuum tubes).

EDITOR'S NOTE: Part of this issue was typed and composed by Andy Anderson, K6BHS, and his XYL, and I would like now to thank them for their efforts.

FOR SALE: ICOM BP-2 for IC-2AT. Two months old. Perfect cond. \$25.00. Call Herb W6SAW 364-8538.

MERRY CHRISTMAS

AND

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We will be pleased to assist you !



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COMPONENTS, TUBES AND ACCESSORIES.

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