



SCCARA-GRAM



W6UUVOLUME 5
SANTA CLARA COUNTY AMATEUR RADIO ASSOCIATION
****ORGANIZED IN 1921

NUMBER 10 ...W6UW
SAN JOSE, CALIFORNIA****



PACIFICOON IS HERE !!!



THE TIME IS NOW, OCT.3,4 & 5



FROM THE PREZ

It's not too late. You can still go to PACIFICOON '86 at the Le Baron Hotel, October 3rd to 5th. Registration and tickets will be available at the hotel. It would be a shame to miss the fine programs and exhibits (sellout) arranged by your club, not to mention becoming an accredited member of the order of Wouf Hong! Be sure and bring someone to help you home with the prizes. Enough said, see you there!!

OLD TIMER POTLUCK BARBECUE, Saturday, October 11 (see below for time)

There will be NO REGULAR MEETING ON OCTOBER 13th because of the holiday - and the building being closed. Instead Facilities Chief Mickey, N60DN, has arranged for our use of the County "Congress Springs Landscape Yard", which is on the site of an old County quarry, that has been developed into a spectacularly beautiful park by County employees in their spare time. Because of limited access it has not been utilized as a public park other than ^{to} responsible groups. We have the use of the area from 0900 hours until dusk on Saturday, October 11th. We will have Coffee, Ice and the barbecue fired up for your steaks or whatever. SITDOWN TIME is 1430 hours. YOU BRING: your own plates, cups, silver, tablecloth, meat to be cooked AND ONE OF THE FOLLOWING; depending on the first letter of your last name:

A to G SALAD: green, potato, club, deviled eggs, whatever.

H to M VEGETABLE (hot if you can manage it) beans, etc.

N to O BREAD: If French, large buttered, sliced & wrapped in foil for heating; or other specialty bread and butter.

P to Z DESSERT: Cake, pie, fruit, melons, cookies, etc.

Portions of what you bring should be based on a couple bringing something with eight servings. All items should be in serving container with serving spoon or fork. There is a large barbecue pit and lots of picnic tables. We only have one electric outlet, which we thought to use for coffee. There are also two horseshoe pits (for two games simultaneously), a volleyball court and lots of interesting places to walk to, or just set and chin. The oldtimers will be able to tell you of the heyday of this area.

Hopefully, the Convention Committee will have gotten their act together enough to announce whether we are all in hock or clover. Let's make it a day to relax with our friends and families.

Because of the aforementioned limited parking, please double up with a friend if possible. We guarantee that you will want to come back to the spot again and again. A map is on the next page. If you get as far as Paul Maisson, you have gone too far. Talkin on 146.385 Simplex when close.



CONT. PAGE 3 & 4

SANTA CLARA COUNTY AMATEUR RADIO ASSOCIATION

MINUTES OF CLUB MEETING SEPTEMBER 8, 1986.

The meeting was held at the Board of Supervisors Chambers, 70 W. Hedding. Was called to order at 7:30 P.M. sharp by President Ed Rawlinson WD6CHD.

DAN WM6M, SCCARA TREASURER'S REPORT AUGUST 1986.

Beginning balance (incl. Repeater Fund bal. \$157.90)	-----	\$1335.50
Deposits	-----	\$ 300.00
Disbursements	-----	\$ 480.23
Ending balance	-----	\$1056.27

San Francisco Federal Savings-----\$ 863.11

Jean A. Gmelin, W6ZRJ

Gave us a good idea of how hams operated right before the war. All they had at the time was 10 meters, no other choice. He elaborated as to the trouble they went to in putting their transmitters on the air etc.

COMMITTEE REPORTS.

1. Convention, Shorty AE6M. He said that there are 300 on registration as of now.
There will be an Icom 751 and a Kenwood TS940 for grand prizes.
2. Repeater, Ben KA6R and Keith KN6K, gave us a report of the progress made on the 450 MHz receiver.

OLD BUSINESS.

1. Advertising was approved in the SCCARAGRAM, but someone will have to volunteer for this.
2. Mickey Lutz said there are only 25 parking spaces at the park, and the gates will open at 8 A.M. until 8 P.M.
3. Wouff Hong, Jean said you have to be 18 years, be a ham and ARRL member before you could become a member.

NEW BUSINESS

1. Raffle proceeds to be used for the repeater fund. Was approved by the members and is to be effective in November.

ATTENDANCE 48

There being no further business, the meeting adjourned at 9:20 P.M.
Respectfully submitted.
Joe Bocanegra, WA6YRU
Secretary



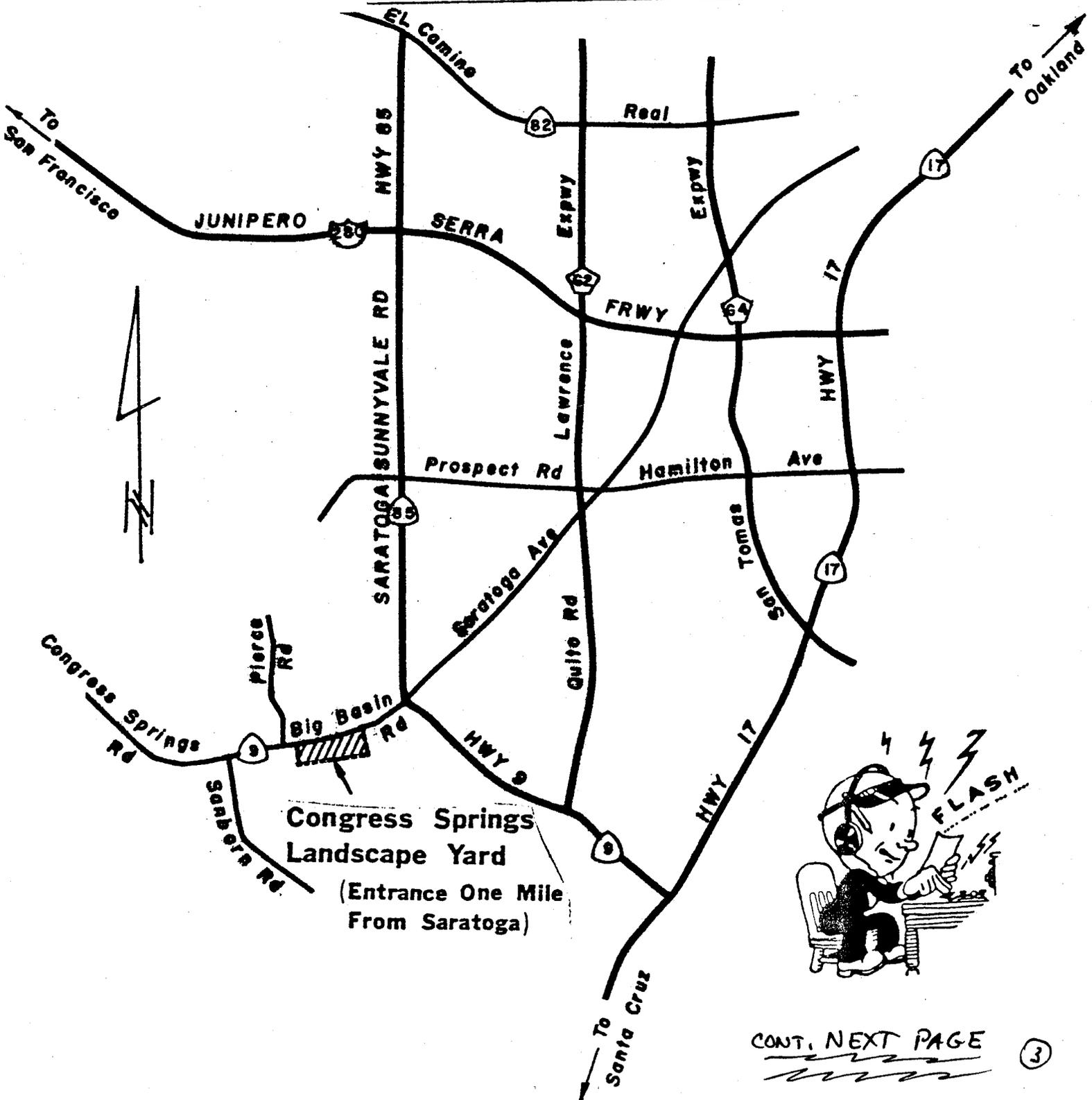
BOARD MEETING OCTOBER 16th, 7:30 PM at San Jose Hospital.

A NOMINATING COMMITTEE is needed to select a slate of officers for 1987. If you are acquainted and would like to serve, phone ED, WD6CHD, at 264-2988. Don't get stuck with the same bunch of rascals for 1987 !!! Phone now!

REPEATER: By the time you receive this newsletter our 440 machine should be on the air (Craig promised). Listen for it on 442.425/447.425 MHz.

73's de Ed, WD6CHD

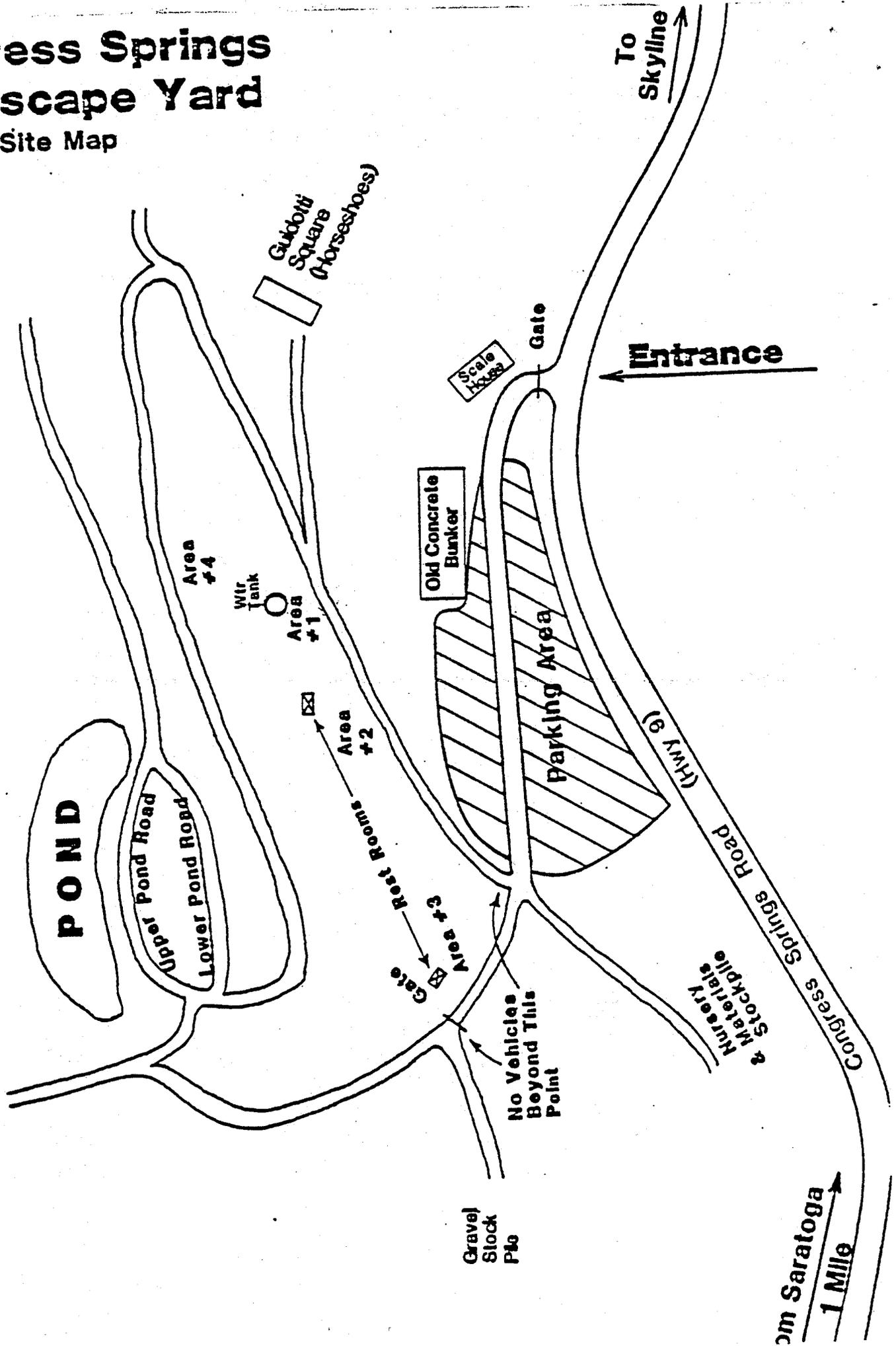
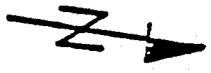
-CONGRESS SPRINGS LANDSCAPE YARD-Location Map



CONT. NEXT PAGE

Congress Springs Landscape Yard

Site Map



To
Skyline

Entrance

POND

Upper Pond Road
Lower Pond Road

Area #4

Wtr Tank

Area #1

Rest Rooms

Area #2

Old Concrete Bunker

Parking Area

Area #3

Gate

No Vehicles
Beyond This
Point

Gravel
Stock
Pile

(HWY 9)

Hurry
& Materials
& Stockpile

Congress Springs Road

1 Mile
Saratoga

Umac

606

TECHNICAL DATA

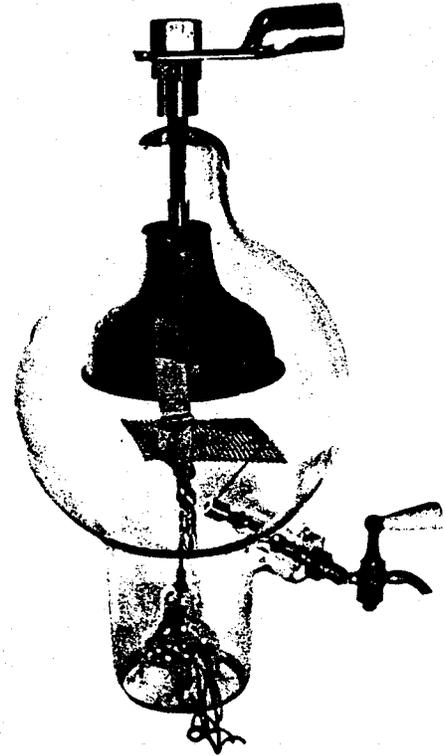
PHANTASATRON

DESCRIPTION

The Umac 606 is an infernal anode, helical beamed phantasatron having a dissipation rating. The unique vacuum in the phantasatron is of the double-pumped type, permitting a clear view of the non-emitting triple-processed plunger-type plate. Because of its unique self-flushing construction, this tube will remain usable throughout its useful life.

The grid is constructed of a rare metal senileium chosen for its total lack of emission.¹ Primary, secondary, and tertiary electrons are fully suppressed by a left-hand inclination toward the ecliptic extending from the nadir to the zenith. This also compensates for aberrations in azimuthal displacements common in tubes of previous design, wherein the focal point was improperly focused due to chromatic sphericalizm.

The urinated tungsten filament is unique. This process is secret.² The uranium used for the urination is of the triple distilled, single isotope variety with all neutrons removed. This material is obtained direct from the AEC-Los Alamos.



GENERAL CHARACTERISTICS

ELECTRICAL

Filament	Urinated Tungsten
Voltage }	{ Adjust until half as
Current }	{ bright as flashlight
Direct Interelectrode Capacity ...	8.874 gallons

MECHANICAL

Maximum Overall Dimensions

Length	1.076 cubits
Diameter	0.643 cubit
Net Weight	0.069 stone
Shipping Weight	Not shippable

APPLICATION NOTES

COOLING -- In operation, the 606 requires a minimum air flow of 5000 cubic feet per second through, around, and above the base. This air flow must be passed through the base in both directions in such a manner that none of the

seals can exceed a temperature of -20° Kelvin. The pressure drop measured at the hole is equal to three fingers of Old Crow. Forced air cooling of the blank is recommended at all frequencies above 60 cycles. Ordinarily a fan

NOTES:

1. Refer to page 42, paragraph 6, "Notes from the I2U Conference" translated from Russian by A. Popoff.

2. See LS/MFT report, "Secret Process -- One Shovel Full to One Shovel Full".

APPLICATION NOTES

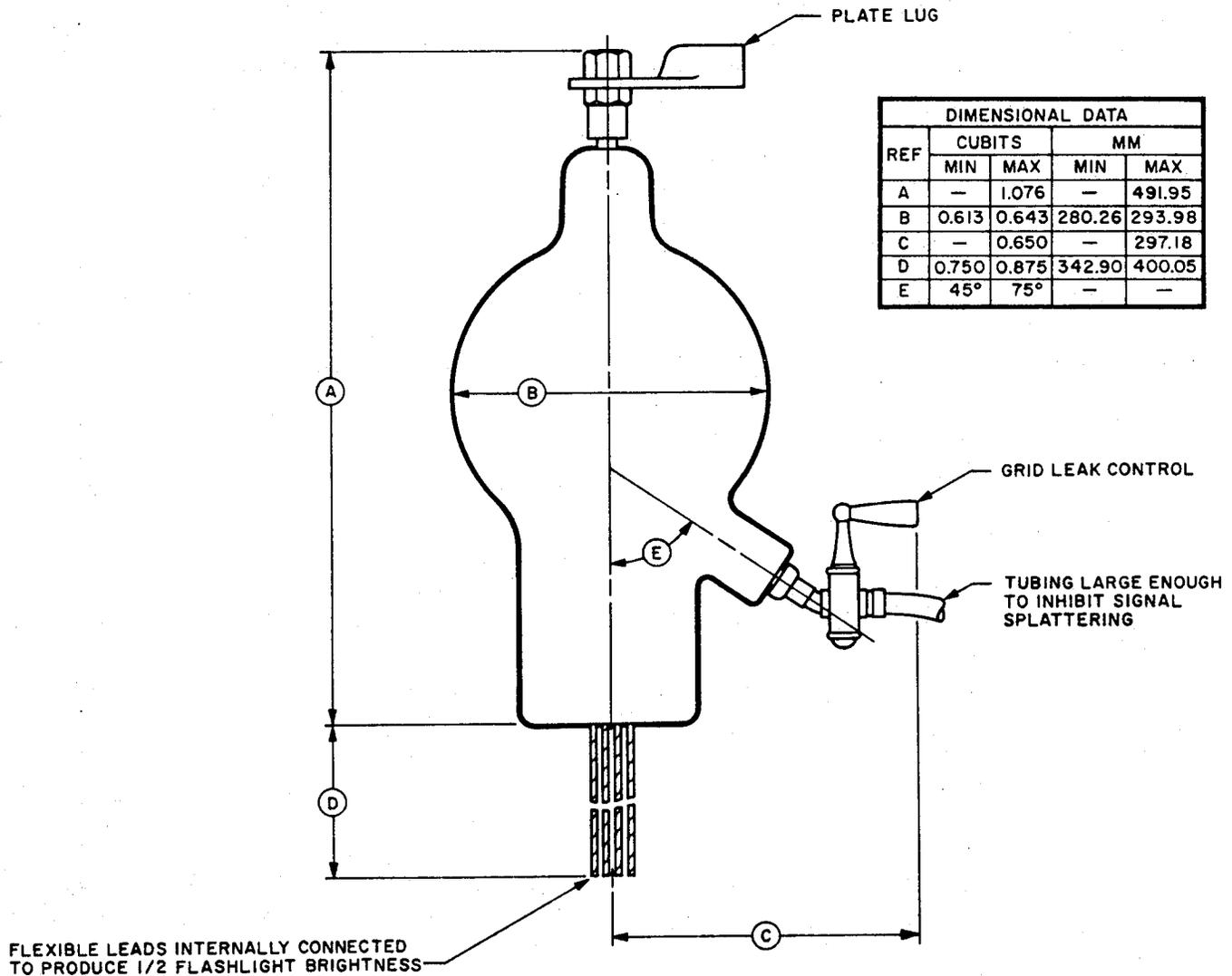
with an 8-foot blade 6 inches from the tube will suffice for envelope cooling. At high altitudes, special precautions should be taken in regard to cooling. Any tube failure is probably due to insufficient cooling and is undoubtedly the customer's fault.

OPERATION -- Because of its unique construction, the 606 can serve as an oscillator, modulator, or amplifier. It usually serves as all three simultaneously. No specific operating conditions are available. Ratings will be avail-

able however, as soon as our competitors issue their catalogue. Exhaustive tests in our advertising department have shown that the 606 will give 50 per cent more output than you will obtain. In case of tube failure, our tests show that you have exceeded the safe limit, regardless of output. In such cases, more air is recommended.

BIAS VOLTAGE -- To prevent splattery signals, a large leak is recommended.

OUTLINE DRAWING



FROM YOUR TREASURER....

OCTOBER!!! A very big month for SCCARA..Pacificon '86 is finally here and the combination Picnic/Old Timers Night (how about afternoon?)/Meeting will be Oct. 11th....Novice classes start on Tuesday evening, Oct. 7thand time to plan for 1987. Yes, it's not too early to consider the upcoming year. Elections for new officers will be at the November meeting and installation at the December Christmas Dinner. I think 1986 was a banner year for the club...Let's keep it rolling.

CONVENTION...

You've been hearing about it for about a year. If this newsletter reaches you **BEFORE** the convention, please attend and give a hand...if it reaches you **AFTER** the convention..I HOPE YOU HAD A GREAT TIME!

NEW MEMBERS....

A big welcome to new members: Curtis Lobush, Jr.,KA6QYH, Bill Oliver,WB6ORU and Dan Curry,WB6STW.

UPGRADES....

Congrats to Brian Pacchetti,KB6LCK and Thor Johnson,KB6NBH who are now Technicians and Alan Levin,N6NOY who has upgraded to General!

AND NOW FOR THE BAD NEWS DEPARTMENT....

After reviewing our expenses for 1985 and 1986, I project a budget for 1987 of \$3000. This includes several contingencies; however, it is still conservative. We do not know how much our insurance will cost for next year. It increased 400% from 1985 to 1986! The SCCARAGRAM is a major expense. You may say "Fine, let's reduce the newsletter and/or let's do without the insurance"...but can we? We can't hold club functions without adequate insurance. I also know we can't continue to grow or even remain a viable amateur organization without a fine newsletter or the many activities we share. Aren't the activities the reason we belong to this club? I think so.

My recommendation for 1987 annual dues is: \$15.00/individual and \$20.00/family. This is a \$5.00 increase for everyone. After an informal survey of other club dues, these amounts seem fair and reasonable and should provide an adequate fund for all club activities.

I recommend that a separate checking account be established for the Repeater fund. The Repeater Committee is to provide the Board with a budget for 1987 and we will try to fund the repeater(s) primarily from this account.

I also recommend that we entertain the possibility of having some fund-raising activities during the year. We have "always" held a Flea Market, but we're not doing very well against the big Flea Market at Foothill. So let's think about having a Winter Flea Market..if we can find some building to use. How about a pancake breakfast? Let's not overlook the fact that there are many amateurs in the area, perhaps belonging to other clubs, that would come out for an event like this!

I also propose an area-wide amateur picnic for next Summer. Let's invite ALL the local clubs to our picnic and work together to keep our hobby alive in Santa Clara County. 73 de Dan, WM6M



Only those codes with 3 zeros and four ones are used, making it easy to check for errors at the receiving end. There are 35 such codes, and so three spares are available for control purposes. The RQ character is used by the transmitting signal to signal "please repeat". The Beta signal is the Idle character. The third, Alpha, will be explained later. The C1, C2 and C3, explained shortly, are also 7 bit characters from the same set, but since they are always sent only in the reverse direction, they are never confused with the other. Conversion from AMTOR code to standard teleprinter characters is shown in table 1. Note that this code is designed to translate easily to and from Murray code.

The change-over is signalled either by sending his over with the two character +? or by the receiving station pressing a transmit button on his equipment. This causes the receiving station to stop with replying with C1 or C2, but with C3. On receiving this, the sending station sends the block beta-alpha-beta. On receiving this, the receiving station changes to transmit, sending first an RQ character. On receiving this as a control code, the transmitting station changes to receive. The timing of the bursts of data from each station is such that even if, momentarily, both are transmitting blocks, each can still receive one character of the other's block in the position expected to be a control code, and the apparently complicated process just described ensures that no matter what, the change-over proceeds in an orderly manner and cannot get stuck. The timing of the various signals is shown in fig. 1, with some of the possibilities for errors. Note that the two stations do not behave exactly identically in their timing. One is called the master station, and the other the slave, for reasons which will become apparent shortly.

Synchronization:

Since AMTOR is a synchronous system with no start and stop bits, the timing at both ends must be quite stable. Some means must be found to get the two stations in step, and to keep them that way for a period of time even if the two clocks are only slightly different in speed. The synchronization procedure starts with the first station (the master) sending a special sync. block repeatedly. The slave station continuously shifts in received bits until 21 consecutive bits correspond exactly with the expected sync. pattern. The slave then starts to reply in the gaps, sending back one of the control codes. The master station meanwhile, has been shifting in received data bits during the gaps in its transmission, and when it recognizes 2 consecutive control codes it stops sending sync. blocks and changes to send traffic. In fact, to guard against the possibility of the slave station getting the sync. pattern right by chance, the master sends two different sync. blocks alternately, and the slave must get them both right to lock on. The first of these blocks has an RQ in the 2nd character, with two alphabet characters in the other two positions while the second block has two more alphabet characters in the first two positions, with an RQ in the 3rd. The RQ characters prevent the four alphabet characters from printing out at the slave station.-----to be continued-----

BY AEGM, HARRY

~~SECRET~~

Good advice no matter where it comes from is worth repeating. Now that our membership has grown perhaps can pick up a hint or two from one of our fellow Bay Area Clubs. Some repeaters have short timers some appear to have none, we are quite lucky that ours does not have one of the short timers, however at times I think that it should. Yet on the other hand some claim that it does not get enough use. With the addition of 440MHZ (Remember that the club President was promised it would be up and operating by the time this is published) repeater, we will not have another repeater to use. Those at the meeting did not listen to what was really being said and voted to put two (2) repeaters on at the same time. In other words if you call on 440MHZ you come out on both 146 and 440 MHZ at the same time and visa / versa. To get it to work as you thought it would, will require another controller and that of course calls for more
***** It seems a shame to keep throwing money out and having to settle for "a low level repeater" as thats what I am told we have a sanction for. Its all very confusing and I for one am rather put out about the entire matter. I say lets just get this 2 Meter repeater working OK and then if you want to throw money out the window go ahead.....WB6WKM

REPEATER TIPS

DOs

- DO KEEP ALL TRANSMISSIONS SHORT
Emergencies don't wait.
- DO PAUSE A COUPLE OF SECONDS
BETWEEN EXCHANGES to reset the
timer and allow someone to
break in.
- DO IDENTIFY PROPERLY every ten
minutes.
- DO BE COURTEOUS AND FRIENDLY.
- DO USE THE REPEATER ONLY AS A
CALLING FREQUENCY DURING COMMUTE
HOURS (7:30-8:30am, 11:30-1pm,
4-6pm) then QSY for your QSO.
The club members will appreciate
your consideration.
- DO USE SIMPLEX WHENEVER POSSIBLE.
Leave the repeater available for
those who need it.
- DO REMEMBER - EMERGENCY TRAFFIC
ALWAYS HAS PRIORITY.

DON'Ts

- DON'T MONOPOLIZE THE REPEATER.
- DON'T ABUSE AUTOPATCH PRIVILEGES.
Business traffic is not permitted.
The repeater is a community
resource, like a party line.
- DON'T NEGLECT PUBLIC SERVICE such
as accident reporting, emergency
preparedness, etc.
- DON'T BREAK INTO A CONTACT unless
you have something to add.
- DON'T ACKNOWLEDGE JAMMERS. That's
how they get their kicks. If you
can read your contact through the
interference, continue your QSO.
If not, QSY or QRT.
- DON'T FORGET - WHAT YOU SAY OVER THE
REPEATER CAN BE HEARD OVER THOUSANDS
OF SQUARE MILES.
- DON'T DISCUSS AUTODIAL CODES ON
THE AIR.

TNX TO

SARS & SPARK HOPE YOU WILL ENJOY THE PALO ALTO 523 REPEATER



..... The Equipment Column, by Eric N6NMZ

No one has claimed the ARRL 1986-1987 repeater directory. As I stated last month, the first person to send me a paragraph about their equipment gets it.

I have just finished reading a brochure about a new Yaesu HF radio. It is the FT-70F/G portable. Looks like a unique radio, opening up a new area of the radio market. It has transceive capabilities from 2 to 30 Mhz using USB, LSB, CW or AM. The interesting thing is, that it is a portable radio. It has an optional battery pack and backpack type carrying case. Power output is 5w/2w on AM and 10w/4w on all other modes. There is an optional antenna tuner which mounts right to the top of the rig. There are telescoping antennas available. A true portable HF rig. It weighs 13 pounds with the battery pack. Dimensions are 9.5"(W) X 3.4"(H) X 12.5"(D). Could make for a very interesting rig for field day.

Something else on the market that I want everyone to know about is the Diamond D-130 Super Discone Wideband base antenna. It is the perfect antenna for us VHF/UHF types who don't want a bunch of antennas on our roofs. Although it is a unity gain antenna, it maintains 1.5:1 or less VSWR from 25-1300 Mhz. That means all of the bands from 10 meters to 1.2Ghz. It will accept a maximum of 50 watts in. I'm going to buy one.

I have some bad news. Larry, KB6HRN, had to send his Yaesu FT-703 back to the factory for some warranty repair. The transmitter was fading in and out. I hope he keeps us informed on the progress of the repair work. Due to this setback he has not yet purchased the Icom 37A. I do have word that he will be buying the new Kenwood tri-band packet handheld. More on this next month. One more item: If anyone finds Larry's license, please let us know.

Please write to let me know if you read this column. Send me some of your ideas. The address is: The Equipment Column, P.O. Box 643 Applegate, Ca. 95703.

73's
Eric Homa N6NMZ

CQ CQ CQ de.....WB6WKM

By golly the BIG DAY is here, I bet you didn't think that it would sneak up as fast as it did. For many its a last minute scramble to tuck in all of the loose ends. For the crew putting on the Wouff Hong, its the last practice, known in some circles as the "dress rehearsal". For some of us its all over once the weekend ends, but for Shorty, AE6Z and his crew there will still be weeks of hard work. Seems to me that if you were one of the members that "didn't want to get involved", the least you could do is show up for the convention so that the club can count on you for a small margin of profit, besides you will have a good time!. So as the song goes, pack up your old kit bag (handie-talkie) and come on over to the Le Baron.....73.....Dick Letrich



Santa Clara County Amateur Radio Assoc.

cordially invites you to attend

PACIFICON '86

The ARRL Pacific Division
Convention October 3-5, 1986

to be held at LE BARON HOTEL
1350 North First Street • San Jose, California



- * Exhibits * Tech Forums * DX Forum * YL Program * Spouse Programs
- * Special Interest Breakfasts * Banquet * Special Speakers
- * License Exams * Wouff Hong Ceremony * Tour of Stanford Linear Accelerator * Awards

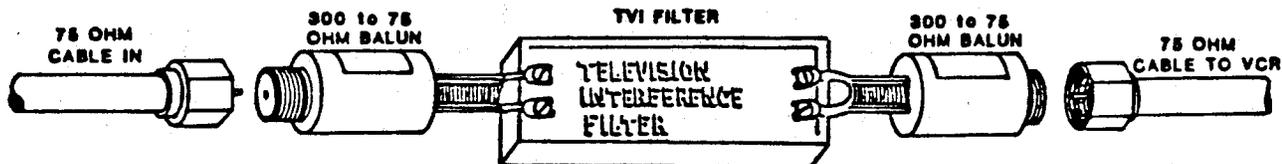
Talk-in on W6UU, 146.985/385

Special convention room rates at Le Baron Hotel
\$50.00 per night — Single or Double!

Contact Le Baron Hotel directly for reservations — Tel (408) 288-9200
(Be sure to mention the convention to get the special rate)

REDUCING VCR TVI

by Chuck, W7MAP



Many of us are concerned about TVI. A particularly troublesome form of TVI is that which finds its way into home VCR's. After three early withdrawals from contests, I resolved to do something about my VCR interference, and hopefully find a solution that would keep both my kids and neighbors happy.

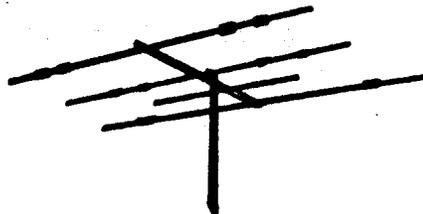
After five or six false starts, I discovered that most of the RFI was getting into my VCR from the shield on the 75 ohm coax. Most newer homes are wired for cable (as was mine), and the three or four hundred feet of shielding makes a wonderful antenna.

To test for this kind of interference, simply remove the antenna connection from the VCR and (with a tape playing) gradually put more power into your antenna system. In my case, if the cable distribution from my house was connected to the VCR, I had no interference while watching normal TV, but found that the picture was destroyed during record and playback. In my neighbor's case, I destroyed regular TV as well as VCR recording and playback with any power level above 100 watts. I also discovered that if I disconnected the cable system, I could run any power level and watch VCR tapes.

I first tried to get the RFI off the shield by using all of the published methods, i.e., ferrite, hi-pass filters, grounding, etc. etc. Nothing worked, until one day I figured that in a balanced system, both leads could be filtered. To accomplish this, I used two Radio Shack coax to 300 ohm baluns, and a six dollar balanced TVI filter.

To use the set-up, simply hook the balun to filter to balun and place it into the line in front of the VCR (see the diagram which follows). The results are very gratifying. I can run full legal power and simultaneously playback or record tapes on the VCR, in addition to watching regular TV. Somewhat more gratifying is the fact that my neighbor with the VCR hasn't had any interference after installing the same configuration.

TVI can take a lot of the fun out of our hobby and cause a lot of bad publicity. I hope this simple, inexpensive remedy helps some of you put the fun back in contest weekends.



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CLUB REPEATER....Input 146.985 MHZ=Output 146.385 MHZ. On-the-air meeting Monday Nights 7:30PM Local time except on regular meeting nights.

REGULAR MEETINGS, are held the second Monday of each month. Meetings start at 7:30PM Local and are held at the COUNTY SERVICE CENTER 1555 BERGER DRIVE, BLDG. #2, San Jose. Visitors are always welcome.

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