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Official Publication Of
PALO ALTO AMATEUR RADIO ASSOCIATION
(PAARA)

W6OTX
Palo Alto Amateur
Radio Ass'n

Affiliated
Clubs

K6YQT
Menlo Park C-D
Radio Club

ORGANIZED FOR
PUBLIC SERVICE, SCIENTIFIC, EDUCATIONAL AND
SOCIAL BENEFITS TO AMATEUR RADIO OPERATORS
(A non-profit organization; Incorporated 1956)

NEXT PLANNED FUNCTION

Date: Friday 3 March at 7:30 PM;
Place: Menlo Park Recreation Bldg, Civic Center
Program: AMATEUR ANTENNAS - their design and use.
SEE CLOSE-UP P.17 → Fred Dietrich, W6MOH, Engineer Philco-Ford, will present some practical information on the everpresent problem of how best to get that power from your final into the air. Don't miss it.

Vol. XVI
No. 3
March 72

ADMINISTRATIVE
Pres. : Fred Canham, W6QWF
V Pres : Andy Korsak, VE3FZK
Secty : Les Vickery, W6AKR
Treas : Vance Wardlow, W6FLE

OFFICERS

APPOINTMENTS
Chmn TVI Comm. Glen Baker, W6UOK
" Publicity, Larry Rice, W6IQT
" Membership, Hal Moore, W6DEF
Edpt Custodian, Ed Fairbanks W6AIN
CCRC Rep. Fred Canham W6WQF.
Refreshments & Raffle Comm.
Ed Fairbanks W6AIN & Lee
Zalaznik WB6BJB.

BOARD OF DIRECTORS
Chmn : Fred Canham, W6QWF
Secty : Les Vickery, W6AKR
Member : Hal Moore, W6DEF
" : Vance Wardlow, W6FLE
" : Ed Fairbanks, W6AIN
" : Gerry Laxson, W6OPA
" : Bob Allen, W6WQD
" : Andy Korsak, VE3FZK

Telephone Committee: Larry
Rice, W6IQT; Andy Korsak VE3-
FZK; Les Vickery, W6AKR.

MENLO PARK C-D RADIO CLUB

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Asst Property Custodian: Glen Baker, W6UOK.
RADIO OFFICER: Bob Allen

Editor: Vance Wardlow, W6FLE, Ph: 854 0803, P.O. Box 911 MP.
POLICY: Membership includes subscription to PAARAGRAPHS.
Subscription rate \$1 per year. Non-subscribers will be
dropped as new names are added to mailing list. For your
APPLICATION FOR MEMBERSHIP send \$4 to PAARA, P.O. Box 911,
Menlo Park, Ca. 94025, For information phone 854 0803.

support your club

SUPPORT YOUR CLUB

BECOME A PARTICIPATOR

PAY YOUR DUES

GET INVOLVED

DO SOMETHING

FUTURE PROGRAMS

Wednesday 8 March: PAARA B of Dir. Mtg. Trailer SRI 7:30PM
Friday 7 April: AMATEUR TV - Bob Allen & Andy Korsak will
discuss and demonstrate ATV developed by them.
Friday 5 May: San Carlos Radio Club will host the meeting
at the Veterans Memorial Bldg, Redwood City, 7:30PM.

NEW MEMBERS

Welcome aboard to the new members following:

Dr. Robert E. Wallace K6OL. Bob has held many call signs all across the USA, from W2-ECW to K6YIW. He is a dedicated phonepatcher with a 2 ltr WAS. Holds an EXTRA license. Nice to have you aboard, Bob and hope you can PARTICIPATE.

Dr. F.R. True (NC) is in the process of learning the code and studying the theory to get a license. Meanwhile he has joined up and is getting some valuable assistance from our active Board member, Gerry Laxson. Keep up the good work, Doc and we all are cheering you on.

Our old friend Ken Kerwin K6UXO, who has donated so much equipment to the Club is now a full-fledged member. Nice to have you in the fold Ken. We hope you can find time to help and advise us on the intricacies of ATV and other sophisticated projects. We learn that he is the brother of Brad Kerwin who has been so helpful to us in getting our RACES station in an efficient operable condition for the City of Menlo Park. The Kerwin family is really in pitching for the Clubs

WELCOME ABOARD TO ALL
BECOME PARTICIPATORS

3

OLD MEMBERS

While we appreciate and welcome aboard the new members the real proof of the progress made by the Club is the renewal of membership by our old-timers. It is very gratifying to add to the list published last month of paid up members. His name didn't print so I'll start with:

Dr. F.R. True;
Glen Baker, W6UOK;
Finley Carter, K6GT
Dick Finkbeiner, W6AQL;
Dick Laird, WN6FZM;
Bob Mager, WA6DVI;
Bill Marquardt, W6NQN;
Gene Reynolds, K6QOM;
Ken Thomas, K6GDH;
Roy Wardell, W6EM;
Vance Wardlow, W6FLE;
Web Webster, W6CUN;
Ken Wilder, K6RB;
Irv Wolfe, W6HHN; and
Lee Zalaznik, WB6BJB.

Add this to the list in last months PAARAGRAPHS and you have a complete list of paid up members.

THANKS FOR YOUR SUPPORT
FELLOW MEMBERS OF PAARA ! !

I have a list of delinquent members. If your name hasn't appeared please let me know if I have made an error.

JOIN THE CLUB
BECOME A PARTICIPATOR

THANKS DR. TRIPP
K6EJL

Our old friend and faithful supporter of the Club, Dr. T.N. Tripp, is moving to a new QTH and is in the process we have all lived thru in our time. He is consolidating his station. Dr. Tripp has donated his SWAN 350 to PAARA. This fine piece of equipment will make a first class station at the trailer and will provide excellent communications facilities forgetting in some good QSO's. many of our members.

We all remember that Dr. Tripp gave the Club a dandy Viking II and an NC123 in 1970. The San Carlos Club is now using that equipment in their Amateur Radio Class & many novices have cut their eye teeth on them!

THANKS DOC - Keep us advised of your doings.

* * * * *

Speaking of Code Classes - The Club now has a tape recording of the AMECO phono records. Jerry Starkey W6LIJ did a fine job of recording and identifying the letters in each lesson. They are 3.5 WPM to 18WPM. One tape goes from 3.5WPM to 15WPM and the second tape goes from 16WPM to 18 WPM. Any member

4
can borrow them for the asking. Call Vance on 854 0803.

Of course the same thing goes for the phonograph records. You may even want to make your own tape or records!

* * * * *

And speaking of Club equipment - Steve Montoya, WN6DQT, borrowed the Club's little novice transmitter - we hope he has it on the air and is

* * * * *

SET FINAL

Hal Moore, W6DEF, reports the final score by PAARA for the SET in January was 472. A drop of 23 from last years score of 495.

It was very disappointing that many of the oldtimers in AREC didn't get in on the fun. The non-participators continue to be dropped as time goes on from the mailing list of our PAARAGRAPHS. It just seems of no real value to continue to "beat a dead horse". To attempt to continue to carry dead wood only increases the problems involved in maintaining an ACTIVE Club or other activity. Hal has done an outstanding job of keeping AREC members informed.

CLUB MEETING - 4 Feb. 1972

Meeting in the recreation Building in the Civic Center of Menlo Park the Club had a very interesting evening. The attendance was excellent and all enjoyed the eye-ball QSOs.

Fred Canham, W6QWF, president of PAARA opened the meeting with a call for volunteers for the Membership Committee and Representative to CCRC. He outlined the concept of the Membership Committee as a group which would contact newcomers to the area such as newly licensed Novices and those moving into the central peninsula area. The purpose would be to greet the newcomers, tell them of our existence and do whatever is necessary to make them feel wanted and to offer them a part in ongoing activities.

Fred issued a special invitation to the SCARS group. Since their Club has become inactive some members may wish to participate in PAARA activities. Remembering the urging of some SCARS members that we establish a "joint" Club it appears that now is an excellent time for them to continue participation to their own benefit and that of other hams in the area. Loud talk is not enough - all must

PARTICIPATE

Fred reviewed the CCRC meeting for January. Don Johnson, W6QEI, urges that the Greater Bay Area Hamfest be held and sponsored by the various Clubs in the Bay Area. It is to be held on October 13 & 14th at the Red Coach Motel at 19th Avenue and Bay-shore in Burlingame.

A new Net called SWAPCARS is operating on 40M. The aim is to provide info on things to swap.

Doc Gmelin reviewed the ARRL Board meeting in Hartford. More frequencies may be available for amateurs due to the success of the satellites which are handling a great portion of the new communication channels.

ARRL will raise dues to \$7.50 in July 1972. We can renew at the old rate until that time. (NOTE: CLUB MEMBERS SEE LES VICKERY FOR ALL RENEWALS - PAARA can collect 50¢ on each such renewal or new subscription. Call Les on 368 5175. Or send your check made out to him for \$7.50 to 980 3rd St., redwood City, Ca. 94063.)

The 1952 FIELD DAY plaque first won by PAARA in that year, then permanently won by the San Jose Club, will again be put into competition in the 1972 FIELD DAY.

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will sell for \$300 or trade
for the two Heathkit counters
15Mhz & 175Mhz scaler.

Also have RANGER 11 - 160
to 6M for \$70.

Write Warren Davis, K6PQI,
737 Anderson St., SF 94110

* * * * *

Jerry Starkey WA6LIJ has the following MANUALS for sale
at .50¢ each - Call him on 964 6584, 2420 Laura Ln. Mt. View
Inst Book for variable tone
Generator Mod. VTG.

Photofact Folder, Hallic-
rafters Mod. S-81 Receiver.

Installation-Operating
Instructions for Powerstat.
All models of Type 116-216.

Manual for Philmore one &
two tubes AC-DC Radio Kit.

Instructions "How to Build
the Knight Wireless Broad-
caster".

Service Manual for DuMont
VM-8 Video Monitor and VM-17
Video Monitor.

Johnson Messenger 202 Tra-
nsceiver Service & alignment
Instructions.

Manual Heathkit 3 watt
amplifier Mod. EA-1

Heathkit Sig.Tracer IT-12.

Ditto Cap. Tester CT-1

Ditto Scope Mod HO-10

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* * * * *

WANTED: Wiring diagram for
Servo Corp. of America rcr
Mod. R5200-A2 50-200 Mhz
Jerry WA6LIJ, Ph:964 6584

* * * * *

HQ-170A 160 - 6M : 180
call Bob : 253 1650

* * * * *

Jerry Starkey WA6LIJ has the following MANUALS for sale
at .50¢ each - Call him on 964 6584, 2420 Laura Ln. Mt. View
Photofact folder Television
Emerson Mods. 1232(Ch.120331-H,
1233(Ch.120332-R)

Hy-gain Inst. Manual for
antennas Mods. 65G, 68G, 103G
153G & 203G.

Wiring diagram for Heath-
kit Amateur Transmitter Mod.
DX-40.

Manual for NC-188 communi-
cations receiver.

Instructions for Q Multi-
plier Kit 118MX.

Manual for Heathkit Tube
Checker Mod. TC-2.

Tube data Manual for Mod.
686 Electron Tube Analyzer -
Weston.

Manual EICO DC Wide-band
Oscilloscope Mod. 460.

Weston Mod 686 Type 10A.

Heathkit Lab No.3

(Make offer on any U need)

CLUB MEETING - 2/4/72 - Contd

Bob Allen, W6WQD, our newly appointed Radio Officer for RACES, reviewed the SET. In general it was very good and all participants learned of things they might need in the case of a real emergency. Hal Moore, W6DEF, summarized the points made by PAARA and the MP C-D Club. We had 6 mobiles, a separate task, 74 AREC members participated, 47 msgs were sent to the SEC, K6YQT was on emergency power all the time, 7 msgs were originated by City officials, 7 letters were sent to various community officials, we had 2 press releases. It all totaled 460 points.

Oliver Sweningsen, WA6QGX, has been storing our 5KW generator in the past. He agreed that it might best be stored next to the trailer to allow instruction of members in its operation and maintenance.

Fred reports progress on preparations for the Powder Puff Derby. The planes will be impounded on 3 July, take off on 7 July and their deadline for arrival in Toms River, New Jersey is 10 July.
(See page 9 for more info)

Glen Baker, W6UOK, reports that Dr. Tripp, K6EJL, is to move and will donate a SWAN 350 to the Club.

Bob Allen was then introduced and proceeded to give us a very comprehensive outline of the LIDAR project. He had charts and graphs to illustrate the results obtained from this laser beam radar type device.

After explaining and illustrating the various circuits and their functions Bon showed us a number of pictures of the results obtained in various places throughout the USA. In Pittsburgh, for instance, he was able to locate exactly the pollution being generated by a number of manufacturing plants both in the daytime and at night.

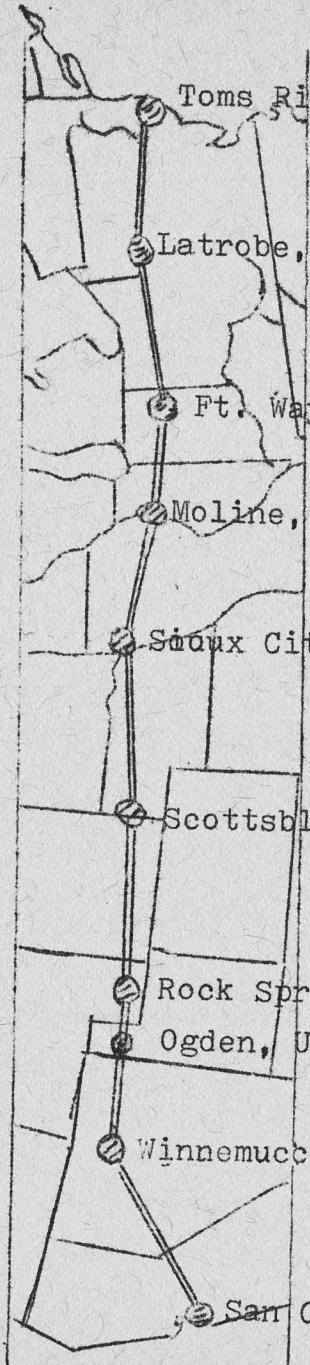
Following a question period we had a coffee break. Ed Fairbanks, W6AIN, did a fine job of brewing up the java and had brought along a fine selection of doughnuts.

Bob then guided us to the trailer at SRI in which the LIDAR installation is being tested. We all had the opportunity to inspect the gear. Bob explained the function of each device and gave us a demonstration of the working of LIDAR.

Altogether a very fine evening of education and fun.

Thanks very much Bob. We all now better understand LIDAR
end

SAN CARLOS TO TOMS RIVER



9

POWDER PUFF DERBY

July 1 thru 7

Fred Canham has been keeping in touch with various officials of the Derby and making the preliminary preparations.

Lloyd Williams, W6VZE, is the Airmens Association Representative and coordinator with PAARA in setting up the ham network to handle the communications for the various participants in the Derby. Carolyn Currens, W3GTC is coordinating the Toms River end of the circuit.

Occuring as it does immediately following FIELD DAY the Derby communications are going to require a group of operators to man the station. Now is the time to start making your plans to PARTICIPATE in both FIELD DAY and the Derby. Fred is planning on a 2 meter net to the Red Coach Motel with mobiles to provide transportation for the participants in the Derby. Don Johnson will provide TTY equipment to be set up at the San Carlos Airport to give a link to his QTH in South SF and to get traffic in the military nets. Hal Moore will handle traffic into the NTS.

We need now to start getting contacts along the route. If any are made call Fred at home on 948 9238.

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AND

GEORGE BECKER

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EXAMPLES OF THE TECHNOLOGY OF OUR BEST MANUFACTURERS. WE

CAN PROVIDE YOU WITH THE VERY BEST OF SURPLUS MATERIALS.

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WE WELCOME VISITORS AND ARE WILLING TO ASSIST IN ALL WAYS

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MEET THE OWNERS - JIM TREES AND GEORGE BECKER, SAY HELLO.

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LET US HELP

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PUBLIC SERVICE

If you are a newcomer to the Ham Fraternity, or if you are with some very interesting information on hams in the central Peninsula area. Going thru an oldtimer preparing to go up for a higher license you need code practice! PAARA has both phono records and tapes for code practice. They are available to members.

However the very best you can do for code practice is to tune up your receiver and listen "over the air".

Here are some schedules of code broadcasts on the ham bands:

DAILY EXCEPT MONDAY

W6QIE, 8PM, 3590Khz, 1½ hrs
code, various speeds
Don Johnson, SSF.
W6ZRJ, 7:30PM, 3590Khz, 15 to
20WPM;

8:30PM, SSB Voice 3815Khz
9:00PM, RTTY 3615Khz

These are official ARRL
Bulletins all broadcast
on Thursday evenings.

K6DYX, Sunday, 7:30PM 3690 &
7025, Hi Speed code.

Monday, 7:30PM 3620 RTTY
& 9:00PM 3620Mhz F-1 RTTY
Wednesday, 7:30PM 3590

& 7129Mhz, A-1, 20WPM.

See QST for the Code Proficiency broadcasts by W6OWP.

IF YOU DON'T SUBSCRIBE TO
QST YOU SHOULD
Contact Les Vickery at 368
5175 for special rates now.

OUR HAM POPULATION

Hal Moore, W6DEF, comes in with some very interesting information on hams in the central Peninsula area. Going thru the Call Book he finds that: Redwood City has 181 licensed hams; Menlo Park has 132; in Atherton there are 38 and in Woodside 27. Stanford has 17 and Portola Valley has 19. That totals 372 hams within a 15 mile radius.

PAARA is particularly interested in contacting all these hams. Our new president is making a concerted effort to bring to their attention the benefits we offer as an active Club.

* * * * *

OUR TRAVELLING TROUBADORS

Gerry Laxson, WA6OPA, and his BW are taking off for the exotic lands to the south this month. They will travel thru Mexico for all the fun and relaxation they can find. We will put an official hex on & 9:00PM 3620Mhz F-1 RTTY period and hope they both do really enjoy the trip.

Hal Moore, W6DEF, and his lovely XYL will again visit their daughter who is teaching in Japan. The trip is planned for March 24th thru April 2nd. We know they will enjoy it immensely. We look for their safe return..

PAARA Board of Directors Mtg
Wednesday 9 February 1972.

The Board met at the Trainer at SRI, Menlo Park.

7:45 Secretary's report.

50 Discussion of costs of individual project and Club support to be given. It was decided that hereafter costs of items for Club Projects must be approved by the Board of Directors prior to expenditures. The Project must be outlined and presented with an estimate of cost.

It was decided that no equipment should be purchased for use by Club members. However that repairs of antennas, overhaul of generators and repair of Club equipment should be financed.

The layout of the Menlo Park Emergency Operating Center was diagramed and explained. It was arranged to take the Menlo Park C-D equipment to the Police Station.

President Fred Canham set up the Committees with chairmen presented on page 2 of this issue.

Glen Baker confirmed that he has the SWAN 350 donated by Dr. Tripp. Glen is placing it in best of condition.

Hal Moore reported on SET. Treasurer gave a financial report for 1971 & Jan. 1972.

Les Vickery pointed out that

13

the annual report to the State Franchise Board must be made prior to May. The Treasurer will make it. Les will prepare the annual report to ARRL as an affiliated Club.

The Treasurer will bring the signature card for the bank account up to date.

Availability of the new radio code tapes was announced.

Fred called attention to the Easter Seal Jamboree to be held by the CB'ers in San Jose 12 & 13 February.

Fred then pointed out that with the advent and very successful operation of the satellites the need for HF frequencies by commercial & other users has diminished. He predicts that Ham bands will not be decreased and in fact may be increased in order that the USA may show some utilization.

Adjourned 9:30PM

* * * * *

We have all heard of the "Iron Men" of old. Well I for one feel the metallic age has arrived - silver in the hair, gold in the teeth, rust in the joints and lead in the pants!

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use as → or 20A at 62V
 $\frac{115}{(ee)} \frac{115}{(ee)}$ → or 115 to 115 isolation XFMR
 $\frac{31}{(m)} \frac{31}{(m)}$ Special $\boxed{\$20.00}$

- plenty more in stock
for other voltages

- Another good buy for building
VHF transceivers:

Johnson miniature air variable cond. (differential)

- 2 to 9.3 pf $\boxed{87\text{¢}}$

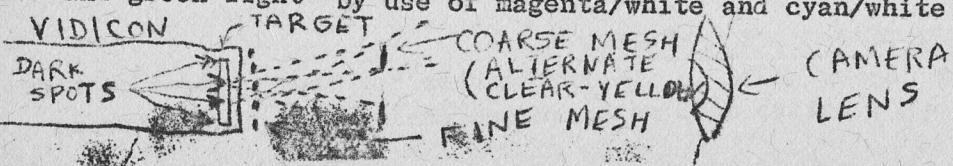
RED JOHNSON ELECTRONICS, 440 Pepper St., Palo Alto, Calif.

TECHNICAL TOPICS de Andy VE3FZK/W6

This coming weekend Bob Allen and Elmer Shapiro will look into the problems with the ART26 and visit some hams in the area who are familiar with it. Also, they will look into the possibility of buying a 1/2 KW ART26.

COLOR TV CAMERA PROJECT

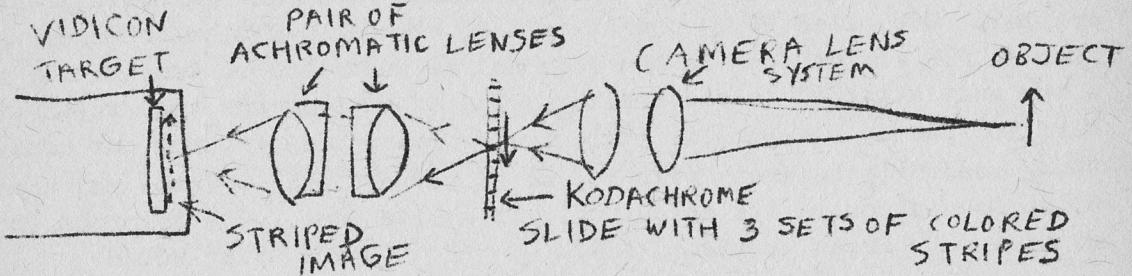
I shot a new roll of 35 mm film using color filters and striped filters, and I now have a better set of colored diffraction gratings for the color camera concept. I am presently putting together a relay lens system for focusing images through a tri-color grating and onto the vidicon photosensitive surface. Last month I explained how color encoding by partially modulating the incoming light with colored stripes set at various angles relative to the horizontal scan results in subcarriers containing color information. Now I will explain how you physically modulate the incoming light. One way is to use two identical striped filters, as in the figure below, which shows how you get modulation of blue light only. Similar effects are obtained for red and green light by use of magenta/white and cyan/white stripes.



16

Since yellow is the combination of red and green light, a yellow filter stops blue light. This results in any blue region being modulated by stripes of dark and blue.

Another way of spatially modulating the image on the vidicon target is to use a relay lens, as in the figure below.



Next month I will describe how you decode the encoded color information on the video and re-encode it in standard form for transmitting over the air.

PROJECT MOONRAY

A group of hams in the east, who have apparently a lot of influence and connections with NASA, are on the way to an almost unbelievable project, named PROJECT MOONRAY. They are building a repeater from 432 to 1296 MHz to be replaced on the moon by an astronaut of the last Apollo shot, which is No. 16 I think. But not being satisfied with just a repeater, they are adding a laser detector input to modulate the 1296 output, plus a color TV camera so we hams back on earth can look at the earth by slow-scan TV (real slow, like every 3 minutes) The power will come from a tiny nuclear power plant putting out 5 watts of DC for 87-1/2 years! So, provided the electronics keep working, we should have a lot of fun with the thing for a long time to come. We will hear all about it at the next meeting, so:

DON'T MISS THE APRIL 7 MEETING -- COME AND HEAR NICK MASHALL,
FOUNDER OF PROJECT MOONRAY -- ALSO HE WILL TALK
ON OSCAR 6, NEXT SATELLITE

FM REPEATER TONE CONTROL MODULES

Lucky Rogers W6JXO is selling modules for tone control of repeaters. Anybody active on 2 meter FM see Lucky -- he's manufacturing

17

them at reasonable prices.

FOR SALE -- HEAVY KILOWATT

Anybody willing to cart off a 600 lb. BC 325 1 KW transmitter can have it for \$50. Call Norm, 326-6200 x 2828. Also Norm has a BC645A jeep set, complete transceiver with mike, headsets and whip antenna, for \$10.

"DEW LINE" FOR TV ANTENNA

If you want to build a high gain TV antenna like my 7 foot dish but less expensive, see BROADCAST ENGINEERING, January 1968, p. 14, for construction details. This antenna is a parabolic dish like on the DEW LINE, made of bowed wood and wire mesh. The author claims he built 20' and 36' dishes which pull in Bay Area VHF stations way out near Placerville. This information came from Frank Inami W6GSR one of our subscribers from Livermore.

W6GSR↑

CLOSE-UP ON OUR SPEAKER FOR FRIDAY

Topic: "ANTENNAS--PRINCIPLES, PRACTICES AND PITFALLS"

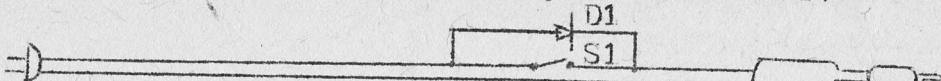
Speaker: Fred Dietrich W6MOH

Information About the Speaker: Fred comes with wide experience in all sorts of antennas from 2 MHz to 60 GHz as both a professional antenna engineer Philco-Ford, Satellite Antennas and ham of 20 years standing. Fred holds a Ph.D. from the Ohio State University in electrical engineering, where he was a research associate at the antenna laboratory*. His dissertation topic was the development of a polarization-adjustable antenna system for ionospheric research. He has published antenna articles in 73 magazine and in the IEEE Transactions on Antennas and Propagation. Licensed as WØIFY from 1952 until he moved to California in 1968, Fred has specialized as a ham in devising low-cost antennas which would fit a variety of typically undesirable housing and landlord constraints.

* Professor John D. Kraus, W8JK, was Fred's adviser for part of his tenure at Ohio State.

F.S. Steve Kaider will need blood during an operation - if you
can donate call the Kaiders 961-5198
K6TV

Here is a "Gimmick" from January 72 FOOTPRINT:



Heat reduction of a soldering iron to $\frac{1}{2}$ /Soldering iron.
Example: Using an Ungar 47 $\frac{1}{2}$ watt iron:
When S1 is closed the iron produces rated heat. When S1
is open, D1 permits the iron to conduct on only $\frac{1}{2}$ cycle.

$$PRV = 120 \times 1.414 = 170 \text{ Volts}$$

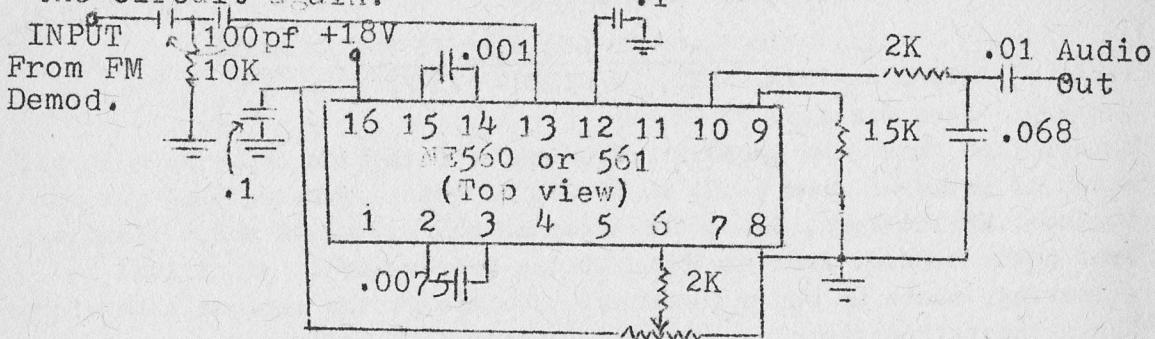
$$47 \frac{1}{2} = 120 \text{ (I)}$$

$$I = 0.44A \text{ (RMS)} \times (1,414) = 0.5656A \text{ Peak.}$$

D1 = 1 Amp 400V used diode.

Credit should go * * * * * * * * * * * * * * * * * *
to Bill W6VGR AK

A couple of inquiries have come in regarding that set-up Andy devised for "MUSIC WITHOUT COMMERCIALS". Here is the circuit again: .1



10K fine tuning

The set-up draws 12ma at 18 volts (attached to terminal #16. Attach the input to the output of your FM demodulator. (Go inside your set for this connection). The fine tuning potentiometer will tune you to the continuous music channel. The combination of this resistor and the capacitor across terminals 2 & 3 determines the tuning range.

* * * * *

WRITE UP YOUR PROJECTS - GET THEM TO YOUR FELLOW HAMS
SEND THEM TO P.O.BOX 911, MENLO PARK

SAN CARLOS BUGLE
Report of the San Carlos Amateur Radio Club
(SCCDARC)

BIG TRANSMITTER HUNT!!

We of the San Carlos Club will be having a TRANSMITTER HUNT soon! This activity was suggested to help bring club members together and it promises to be a lot of fun. A little imagination and a lot of participation will make this a highlight of 1972. Who knows? Popular demand may make this an annual activity!

At our last business meeting we discussed plans and preparations for the hunt, but they are not finalized yet. Your ideas and suggestions will be welcome.

Next item is a report on the progress of our code class. Jack McEnnerney W6LII reports that 6 of his students have finished the theory lessons and are all set to take the novice test at their next class meeting. GOOD LUCK TO ALL THOSE STUDENTS - I hope they get their tickets and are on the air soon. After they receive their licenses they'll be able to use the novice set-up at the fire station. NOTE : Novice crystals are still needed for that set-up.

REMEMBER - Work the 10 meter net! PARICIPATION is what is needed to keep this net going. I hope everyone will check it out - Wednesday nights at 7:30 on 28.625.

San Carlos Club is also thinking of having a PARKING LOT SALE. It's still in the works - details will be completely worked out at the next business meeting. Bring your ideas.

EQUIPMENT FOR SALE * From the estate of Edward G. Miller WA6 OXE

Swan 240 Transceiver with AC-DC supplies & Mic. \$175

RCA-Car-Fone-150 without control head & cables \$20 or best offer

Heathkit IM-17 Volt-ohm meter with R-F probe \$18

Motorola 6-meter Handy-Talkie \$15 or best offer

Assorted Low-Band Mobil Antenes

73 from S.C. sec'y

Connie Lutz WN4MNW

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