



FIRST CLASS

Andy Korsak VE3FZK
c/o Dr. E. Rusiewicz
RR#1 Shanty Bay
Ontario, Canada

Rec'd June 10

FIRST CLASS

Return Requested
PAARA P.O. Box 911
Menlo Park, Ca.
94025

TO:

Official Publication Of

PALO ALTO AMATEUR RADIO ASSOCIATION
(PAARA)

W6OTX
Palo Alto Amateur
Radio Assn

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 2 June 1972, 7:30PM.
Place: Menlo Park Recreation Bldg, Civic Center
Program: Characteristics of the Innosphere and what
may be expected from propagation into the
innosphere. Jim Lomasney, WA6NIL, who has
worked with Dr. Villards group both at
Stanford and SRI for the past 8 years, will
discuss back-scatter sounding as a technique
for investigation of this phenomena.

Vol. XVI
No. 6
June 72

ADMINISTRATIVE	OFFICERS	BOARD OF DIRECTORS
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Refreshment & Raffle Comm:		Andy Korsak VE3FZK
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MENLO PARK C-D RADIO CLUB

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Editor: Vance Wardlow, W6FLE; Ph 854 0803; P.O. Box 911 MP.
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support your club

SUPPORT YOUR CLUB

BECOME A PARTICIPATOR

GET INVOLVED

PAY YOUR DUES

DO SOMETHING

FUTURE PROGRAMS

Wednesday 7 June: 7:30PM MP Recreation Bldg: Bd of Dir Mtg PAARA.

Friday 7 July: Clubs meet at San Carlos Airport 7:30 PM for
 Field Tour and inspection of POWDER PUFF DERBY communications
 station set up by PAARA.

DON'T FORGET FIELD DAY JUNE 24-25- BE A PARTICIPATOR ! ! !

NEW MEMBERS
WELCOME ABOARD FELLOW PAARA
PARTICIPATORS

Eric Reese, WB6KQX joined up recently. He is a member of the Woodside High Radio Club. Has a General license & is a member of ARRL. He works Navy MARS, holds the WAS, RCC and CP20 awards. His HW-17A equipment gets him out there on DX contacts. Eric picked up that TDE "Monster" I've been talking about so long. He will have a fine suppressed carrier rig at a full KW when he gets it on the air. Nice to have you aboard Eric. Keep us advised how the station comes along.

Gerald Tucker WN6LNV has become a PARTICIPATING member. Gerald is a CW man who gets in there and OPERATES. He has an HT-40 xmtr and really gets the contacts with it. Mostly on 15m he is in there punching for an advanced license. Nice to have you aboard, Gerald. Let us know if we can help in getting better prepared for your exam.

JOIN THE CLUB

BE A REAL PARTICIPATOR NOW

Write PAARA, P.O.Box 911, MP

Speaking of new licenses - Paul Thekan WNoDQU is sweating out receipt of his new advanced license. He got the notice he had passed the exam several weeks ago but so far no notification from FCC! ! Keep calm Paul. the FCC works in slow and mysterious ways. They will eventually get to your outstanding exam paper and will ask themselves why they took so long in giving the license to such a fine up-standing young man!

Paul arranged for Andy Korsak VE3FZK, to give a short talk to the Woodside Hi Radio Club on the 18th on May. Andy gave a general outline of the many facets of Ham Radio and the numerous projects available to the experimenter. He had some equipment to demonstrate what he was discussing and a chart to demonstrate the very broad spectrum of the radio frequencies available to the hams & the commercial companies. The Club members appeared to get some useful information from the talk.

PAARA is very interested in making contact with the various Clubs in High Schools and other institutions. If you know of any call Andy at 326 6200 extension 2853.

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FIELD DAY

SATURDAY AND SUNDAY 24-25 JUNE

All you competitors and PARTICIPATORS get in there and prepare for the big event of the year. Field Day will give you the opportunity to try your skill as a REAL communicator! Brush up your skills on fast contacts and get in on a TEAM assignment.

Don't fail to give your name and call sign to Fred Canham W6QF. Write him at 691 C sita Way, Los Altos, Ca. 94022. Or call him by phone at 948 9238.

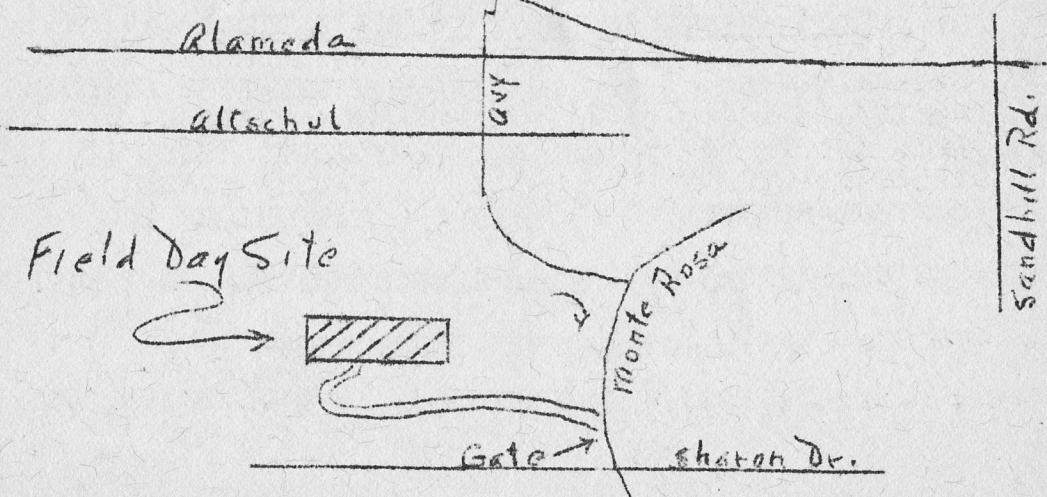
DON'T FAIL TO GET IN TOUCH WITH FRED AT EARLIEST TIME! !

Oliver Sweningsen WA6QGX, has the 5KW mobile power supply at his place getting it all tuned up for the big test by using it to provide power for his hedge clippers at the back end of his acre in Atherton!

Lee Zalazanik WB6BJB, has been giving the little SWAN 350 a workout in the trailer to get it in first class shape.

We are depending upon Glen Baker W6UOK to pull the trailer to the FD site. His old Dodge has done the job for many years!

HERE IS A MAP OF HOW TO REACH THE FD SITE



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MEETING Friday 5 May 1972:

There were preliminary discussions of Civil Defense actions taken in the past month. Bob Allen, our RACES Radio Officer continues to coordinate with the City of Menlo Park in the installation of facilities at the Civic Center.

Fred Canham discussed the preparations for Field Day. At that time it looked like a single station was the most practical. There has been very little enthusiasm shown by PAARA members.

Fred then introduced Larry Reed, W6CTH, the speaker for the evening.

Larry proceeded to take us on a safari through Africa. He showed us a selection of slides which were just outstanding! Larry's pictures are nothing short of commercial type. He has pictures of a great number of animals in their native habitat which are just unbelievable. He certainly took the time and has the experience to obtain the most natural like attitudes of all the animals and of the terrain as well as the native tribes.

With the pictures Larry makes running comment.

Just wonderful, Larry, thanks for the wonderful trip and descriptions. Thanks Larry

PAARA BofD Meeting 10 May
Present Fred Canham, Hal Moore, Ed Fairbanks, Andy Korsak, Baob Allen, Les Vickery, Gerry Laxson & Vance Wardlow.

Minutes read, treasurers report - both approved.

Andy showed a 432 xmtr made by Bjorn Forsberg for the Club - very nice. Reported on the ATV program - some progress. Has a large supply of tubes for any member of the Club.

Hal Moose reported no action on the membership drive. Busy with DX Club. Andy has schedule to talk with Woodside and Menlo Atherton High school Radio Clubs.

Bob Allen reports that the Menlo Park Civil Defense Plan has been approved at the State level.

Fred discusses the 145.24 Net for Wednesdays. There is an RTTY station right on the frequency. He also discussed the Powder Puff Derby preparations.

Insurance for the Field Day site was approved and the purchase of paper for PAARAGRAPHS. Also the expenditure of \$30 for a microphone for the Club transmitter.

Board OKs modification of the Clubs NC-120 to a Xformer type power supply by Jack McEnnerney.

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MEMBER ACTIVITIES

Fred Canham, W6QWF, added another ten feet to his mast and mounted a tri-band array with a rotor on it. All this SINGLE HANDED! - Well he did get some help from his beautiful XYL! Our guess is that the latter is what made it all possible! We may have to recruit her for a supervisor on Field Day to assure the masts and antennas get put up correctly!

* * * * *

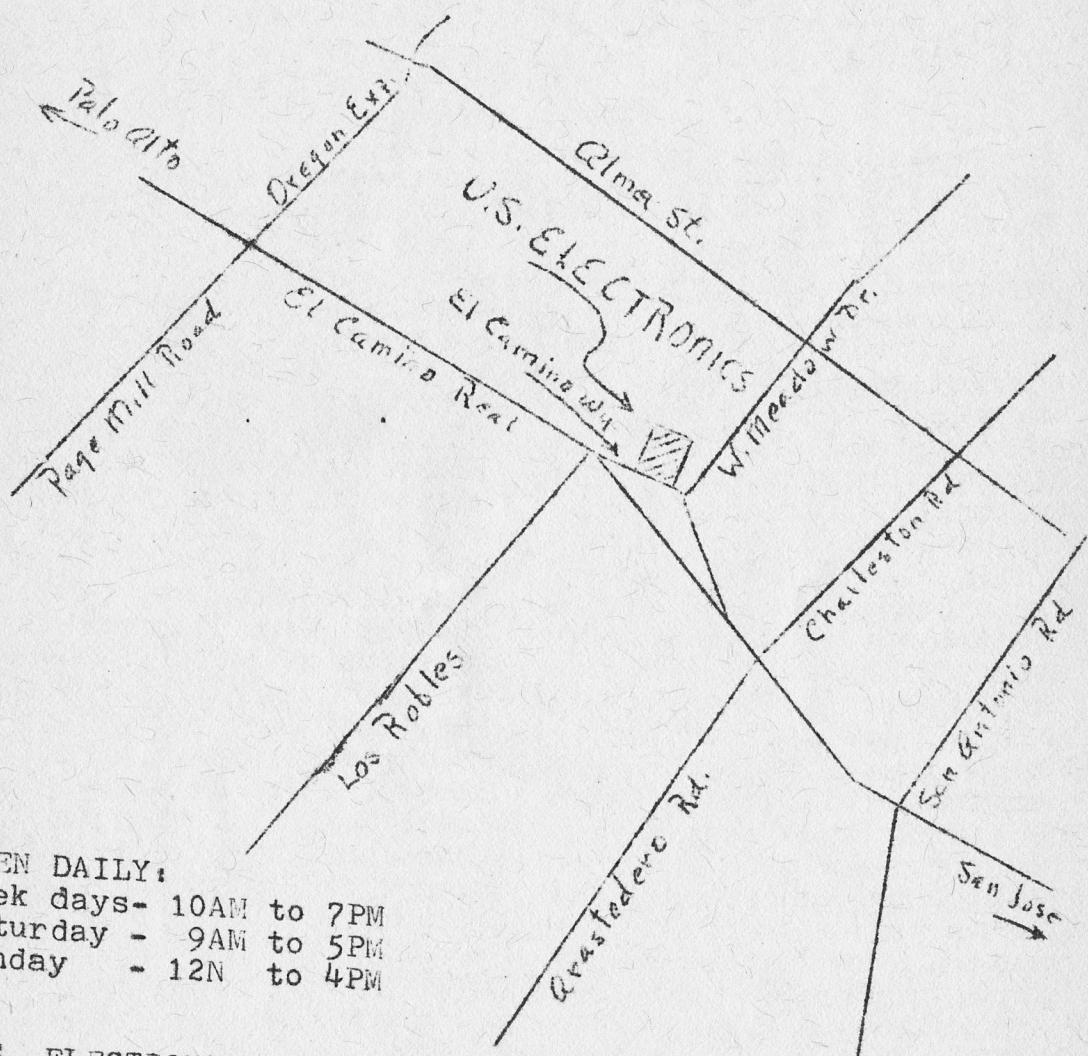
Andy Korsak, VE3FZK, has taken off for a 4 week trip through Philadelphia to Shanty Bay, Ontario Canada and return. So far on his trip he has made contact with Ed Fairbanks, W6AIN, and Fred Canham, W6QWF. Andy is on the air each evening at 8PM PDT on 7205Mhz and later on 3805Mhz (8:15 or so). He left the 19th and expects to be back June 18th. He will particularly try to be on Saturdays and Wednesdays. Give him a listen and a call! Going thru Winnemucca, Utah he contacted W7JZ, Joe Yeazel, who will handle the Powder Puff Derby traffic to that first stop on the flight. Last we heard, thru Fred Canham, he had contacted the Rock Springs traffic handler, K7SAD. Good Going Andy, C U later.

CIVIL DEFENSE

Bob Allen, W6WQD, our RACES Radio Officer, received the Menlo Park Civil Defense Radio Communications Plan approved at the State level. He also received forms for authorization of individuals to operate RACES stations in event of emergency. Anyone desiring such authorization may obtain a personal card from Bob. Drop him a line requesting a card at 124 Lundy Lane, Palo Alto, Ca. 94306. Give him your Name, Call, Address and present affiliation with any company or if self employed. This will allow a clearance to issue an authorization card. THESE ARE VERY IMPORTANT IN THE EVENT OF EMERGENCY to identify those qualified to operate RACES.

Menlo Park is proceeding with preparation of the basement of the Administration Building in the Civic Center as an "Emergency Operating Center". Bob is coordinating with City officials to assure availability of operating space for the Menlo Park C-D Club to operate as the RACES station. Bob has submitted the necessary application to designate K6YQT as the Menlo Park RACES station. As the Emergency Operating Center develops drills will be held to assure adequate training for authorized operators.

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POWDER PUFF DERBY

Plans are going along at a good pace for the Derby. Fred Canham continues to have contact with those planning the overall Derby. Space for setting up the Radio station has been settled and the equipment for the various circuits is being designated. Some meetings have been held and assembly points established. Plans are for about 150 planes fast traffic lane. Gene was to take off on 7 July. Their first check-in point is at Winnemucca, Nevada. With this number of planes the traffic handling problem will be very accute on that date. Fred is planning on having the station to deliver his squib for the on the air a couple of days prior to the take-off. He has need for assurance of operator being available. SEND HIM YOUR NAME AND TIME YOU CAN OPERATE HIS OWN CAR WOULDN'T START! Phone 948 9238.

* * * * *

How many of you have taken advantage of the FREE SUBSCRIPTION TO QST good until 1 July?

Membership in ARRL is now going for \$6.50 - this includes a subscription to QST. AND THE CLUB GET A BONUS!

Send your check for a 1 year - or 10 year - subscription to Les Vickery, (make the check in his name) at 980 Third St., Redwood City, 94063.

PROBLEMS

Sometimes you get to wondering if its all worth while! Recently Gene Sussli was tooling along on the Bayshore, took a turnoff into a crossing highway, entered traffic and WHAM! He was stopped by a cop who claimed he had violated a certain rule that required him to take further evasive action before entering a fast traffic lane. Gene was hailed into court. He fought the citation, quoting the law, rules and lack of proper signs. The judge let him off ! ! !

A REAL sea-lawyer, Eh? Next - Gene was on his way to deliver his squib for the PAARAGRAPHS last month when he saw a feller in trouble. He stopped to lend a hand, got the Feller on his way and then

NAME AND TIME YOU CAN OPERATE HIS OWN CAR WOULDN'T START! Gene sat there for 2 hours before any help arrived! This after he had asked a fellow to notify the State Police! ! We really sympathize Gene.

* * * * *

JOIN THE CLUB

Send your check made to PAARA for \$4 to PAARA, P.O. Box 911 Menlo Park, Ca. 94025. You will receive an APPLICATION FOR MEMBERSHIP, a MEMBERSHIP CARD, a years subscription to PAARAGRAPHES and can become a PARTICIPATOR!

CALIFORNIA WHEELCHAIR GAMES

On May 13 and 14th competitive contests were held for the physically handicapped at Gunn Senior High School in Palo Alto. Activities included the javelin and discus throws, archery, weight lifting, table tennis, and a "wheelchair Slalom". Coordination of the various widely separated activities became a problem. Enter our outstanding PARTICIPATOR, HalMoore N6DEF. Together with K6LVJ, Gary; K6PKT, John; WB6FMF, Natalie Wa6MSD, Burt! a Net was set up using the San Mateo County Repeater, K6QFO on FM. Two operators were assigned to the registration desk, the others to various activity locations. Sharon Schleppke, WB6FME, was so busy PARTICIPATING in various events she couldn't find time to man a station.

It was a fine demonstration of cooperation by Hams in solving a problem for a most outstanding affair.

* * * * *

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ition. 325.00	or Eric WB6KQX - 366 9994
HAMMARLUND SP-400 receiver	* * * * *
Sharp 75.00	HEATHKIT HP-10, DC-DC inverter also DX-60 series Xmtr. Call Jim McCaig (NC) after 3PM at 253 7339. Not in on weekend of 27-28).
NATIONAL HRO-7 with all coils Power Supply, Spkr 40.00	* * * * *
Call Steve K6TV 961 5198	A BUYER

(Note: Steve has the Clubs Mackay Radio shipboard Xmtr a CW rig with $\frac{1}{2}$ KW output. It is available to any Club member who wants to get on HP CW. Give him a call.)

* * * * *

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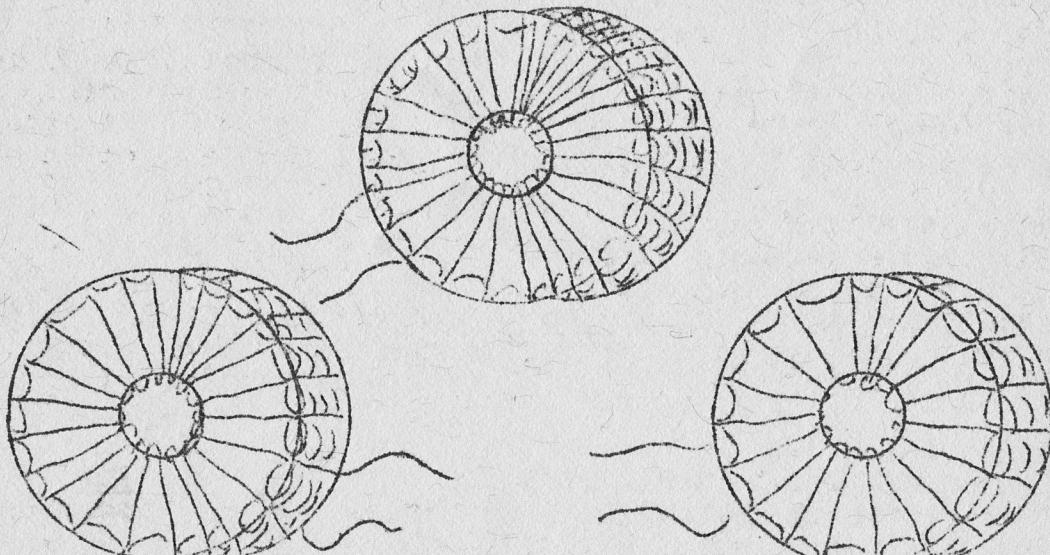
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TECHNICAL TOPICS de Andy VE3FZK/66

EDITORIAL

I don't want to give the impression that this monthly column is solely for the purpose of my bragging about all the projects that I start and never get to work right! It seems like that anyway. So if anybody else out there has any building, antenna raising, etc. or anything technical to report on, PAARA will be glad to spread the news. So with that introduction, allow me to begin with describing a project that did work, even though it is not quite ham radio, but it was done by a ham.

150 KHZ HEARING AID SYSTEM

Howie Zeidler W6WMC is an engineer at SRI who reads our bulletin and he reports success with converting about 15 AM BC radios to 150 KHz, to be used in a hearing aid system that he installed at his church a few years ago. There is a need now for some new units, so he set out to convert some RCA \$5.95 radios by padding down the local oscillator and RF coils with plenty of additional capacitanee. He reports that this method worked better than his previous one, wherein he added inductance by winding additional turns on the coils as well. Apparently the higher C to L ratio makes the radios more stable and the L.O. keeps oscillating down to lower battery voltages, batteries can be used longer, and the radios are less noisy, probably due to higher Q. Howie also had to tune the IF cans higher, up to 480 KHZ, to avoid the 3-rd harmonics of 150 getting into the IF stages. The transmitter, of this "hearing aid" system, which is modulated by the pastors voice (over the P.A., I suppose), drives a two-coil antenna built into the floor of the church. Howie says he removed the speakers from the receiver's so people wouldn't cause interference with feedback if they accidentally pull out their earphone plugs.

If any of you see a need for a hearing aid system in your church, you may possibly benefit from Howie's experience with his system.

AMATEUR TV PROJECT

- 16 -

The W6OTX/TV station is temporarily off the air while I am working on modifying the camera to a color camera. If some ambitious ham would put together a solid state camera for us, would could maintain one on the air while I am fooling around with the other one, but so far we have only one. Actually, we do have an iconoscope camera, donated also by Ken Kerwin K6UXO, and it just needs completion of the power supply for which I have the parts so if someone out there is interested in preparing that camera for going on the air, that would be a good club contribution. Give me a call after I get back from my vacation on June 19, if you are interested. I am leaving May 19 for a four week vacation trip to Philly, Boston, Toronto and my official VE3 QTH, Shanty Bay, Ontario (where my twin sister lives). I'll be back for field day and the Powder Puff Derby, and I am still planning to set up our amateur TV at both of them. Fred Canham, our president, is getting me a hard time over setting up TV on field day -- he says he doesn't want to hear sync pulses all over the 80 and 40 bands, spaced every 15 Kc (15.75 Kc to be exact, Fred). Actually they wouldn't be that, because the generator won't be exactly 60 Hz. Fred, don't you think you would like to be a big star, pounding brass up there on the Sharon Heights hill while we lazier hams are watching you on TV from our lazy boys with a can of beer in one hand (you'll have to log with your other one, so you can't have any).

I'm hoping Bill Jackson W6OWQ will get his TV set up at the San Carlos field day site. That way we can add a little fun to the competition, like making faces at each other. Besides, I think setting up TV would attract more interest in participation. Some of our board members seem to disagree -- maybe this is not a good idea. Anyway, I'll probably set up the TV camera and transmitter in my camper, which should shield any video radiations, and certainly the few watts we have on 440 MHz isn't going to bother anybody. I'm sure I'll get more TV I from the low band stuff than the other way around.

By the way, Bjorn Forsberg has just constructed a new ATV transmitter for the club - we still have to try it out.

COLOR TV CAMERA PROJECT

The phase lock loop video subcarrier decoder I described last month was improved on this month, by adding gain ahead and after it with transistor stages, and putting one tuned circuit ahead of it did help. But the picture decoded from the subcarrier (caused by an optical filter consisting of black and clear stripes for testing) was too snowy. This was caused by too much noise in the video spectrum of the camera around the 2 MHz region of the subcarrier. The source of the noise was eventually pinned down to the front end of the video amplifier, which is a 6BK7 tube, commonly used in VHF front ends of TV sets. Now, the 6BK7 was a good tube in its time, but let's face it, fellas, we are in the solid state era now, and 50¢ FET's can do better than it can. So I ripped out the 6BK7 and hay-wired in a couple of MPF102's in cascode. Lo and behold - lower noise, but less gain. Out went the MPF 102's and back to another drawn out research project. So that's where I stand now, trying out various front end circuits using junk box transistors and the latest entry is a pair of 2N4393 SILICONIX FET's I just got as samples from their Sunnyvale plant. These should be lower in noise and they are high in gain, but I seem not to have biased the cascade circuit properly as it draws too little current and it is noisy. Anyway, now I have to pack for my trip, so will get back to this matter later.

REPORT ON UHF CONVENTION

On May 6 and 7 there was a bi-annual UHF convention at the Ramada Inn, with lots of interesting speakers on latest components and techniques. Among these was Art Fury WA6JLJ who introduced a new IC from SIGNETICS called a timer (I forgot the type no.) which makes a very stable phase modulated oscillator up to 1 MHZ, and Ed Oxner of SILICONIX who showed how to design FET circuits for UHF preamps. On Sunday morning, May 7, there was an antenna contest, 2 M and up. Winner for 432 was Mel Farrer K6KBE with a pair of 27 element SWAN antennas.

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San Carlos Bugle

(Report by the San Carlos C.D. Radio Club)

Disaster struck San Carlos last week. Would you believe our secretary left town? She did. Quietly. No Secretary - No Bulletin. Well, at least we discovered that our members actually read and rely on our club meeting notice. We usually have an average attendance of about 15 participants, but without the bulletin as a reminder we drew a big crowd of four (4) people besides myself. At least we now know that we are not wasting our money on postage for sending out the notices. What do you do when that happens? Well, we went to the nearest coffee shop and shot the breeze over coffee, coke and doughnuts. However, this was the night we wanted to iron out all or substantially all problems about Field Day. We will now reschedule a make-up session for Thursday June 1.

By the way Connie is doing an excellent job on the bulletin and everyone is enjoying her art-work very much. She spent a week in San Felipe down Mexico way with her Spanish class conversing with the natives.

Talking about travelling, out Bill's spent a weekend fishing up near Mt. Shasta. Bill Burris, WA6CKY who owns a dandy 20 foot trailer invited Bill Jackson, W6OWQ to share the fun and both had a real good time. I understand the mobile rig in Bill's travelling shack is really HOT and already tuned for Field Day 1972.

73, Gene, WA6NVU

For Sale by owner

Bill Jackson, W6OWQ, has a Collins 75S4 receiver and a 52V transmitter, both in fine condition for sale. Call him at his shop at 593-422X594 591-9443 or at home at 593-4229.

Herb Hessler, W6SAW wants to sell a Collins 75S3 (530) 52V3 (470) or 600 for the pair. Also Heath SB-200, Ameco TX-52, Heath SB-520 and ham magazines from 1952 up. 593-3036

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