

CROSSTALK

News Bulletin of the TRW Amateur Radio Club

Member, American Radio Relay League

July 1984

**** FD'71 ** FD'73 ** FD'75 ** FD'76 ** WAS ** WAC ****

Garrett/W6TRW Repeater: 145.32/- .600(2A-PL) -- UHF: 442.000in/447.000out

CALENDAR FOR JULY AND AUGUST

July 28, 8-11am	Swapmeet
July 31, noon	Club Meeting, R4/1041, Speakers will be Jack Sam Bankson, WA6JXG and Mike Corn of the Southern California Edison Co. They will discuss spark generated interference, TVI and line noise tracking techniques.
Aug 14, after work	Executive Board Meeting -- All members are welcome!
Aug 17, noon	Picnic at El Nido Park. Food and refreshments are free to members!
Aug 25, 8-11am	Swapmeet
Aug 28, noon	Club Meeting, R4/1041

June Swapmeet Notes Jim McWilliams, W6RTG

If filling the seller's lot is a measure of success, the June Amateur Radio Swapmeet was a great success. The lot was essentially full of sellers by 9:00am and the buyer traffic was equally heavy. As usual, Don Resor Jr., N6KAW and his June supervisor staff consisting of Jerry Dean, WA6GVO and George Lee, W6IOW handled the traffic control job neatly. And as usual, a lot of electronic goodies of all descriptions changed hands with everyone seeming to enjoy the outdoor affair -- the weather was excellent! If you haven't been to our club swapmeet it is a real outdoor electronic show that ranges from museum pieces to current equipment. Everyone seems to be enjoying themselves - so come on out and see for yourself. Next Swapmeet, as always, is the LAST Saturday of the month - next one on July 28th. See you there!

(editors note. The Opening Ceremonies for the 23rd Olympiad are not until 4:30pm so there is no conflict with the Swapmeet.)

NEW MEMBERS -- OLD MEMBERS

WELCOME to the club new members:
Joe Dietrich, WD6DBD, who is already a regular on the 2 Meter repeater.
Paul Wisiolek, K1TKL, who did a terrific job as 15 Meter CW Field Day Captain.
Robert Block, KB6FBV, a new Technician to the Amateur Radio Service.
Henry Low, N6DGI, an old timer with the TRW/ARC who recently renewed.
Deborah Woida, KB6ESF, who has a 2 Meter HT and "reads the mail" on W6TRW/R.
Joseph (N6KRF), Sharon (KB6ETU) and Paul (KB6FAR) Schuk. Looks like this family is going to give the Stockwells a run for their money with Ham family members!

Wanted - For Sale - Freebies

Wanted - information on where to get crystals for an old Gonset G-76, 40 Meter receiver. Contact Bob Wartburg, KOLLO, at Norton AFB Ext 3322, Mail Station 954/223



Tidbits from the Jolly Little S—!

On June 16, 1984 Phyllis Gilmore, KE6TC, got her Master of Arts Degree from the University of California, San Bernardino! Not only that but the people who decide such things decided that her thesis was so good that it will be published. This is a rare honor as a Masters thesis is rarely published. The thesis is entitled "Technical Writing and the Idea of the Interpretive Community." Congratulations Phyllis!!

Well, the Olympics are upon us. For those of you wishing to get a commemorative QSL card from the UCLA Olympic Village Station, NG840, then I hope I can help you out. My operating schedule is as follows:

Sat. July 21, 9am to 3pm

Sat. July 28, 3pm to 9pm

Sun. July 29, 3pm to 9pm

Sat. Aug 11, 3pm to 9pm

Mon. Aug 13, 3pm to 9pm

When I was there for the Kickoff meeting the 2 Meter rig did not have a PL but I strongly suggested we should have one and it was added to the list of things the station was still needing. So monitor the repeaters, both 2 Meter and 440 MHz and I may be able to contact you.

If you were not at the last picnic then you missed a goodie!! There were about 20 club members enjoying the food and drink and the way Gary and Sammy put together a feast, there was plenty. By the way Gary, if nobody has said thanks to you yet, then let me be the first (and hopefully not the last) THANKS for the picnic!! Next picnic is Fri. Aug 17 at noon in El Nido Park.

A few tidbits left out of the article on the Coaxial Antenna include some of the specs. The gain is approx. +1.5dB over a dipole. It is practically non-directional. It has low static noise and also attenuates harmonics!!

Somebody in the club sent a Crosstalk to a club in England that was looking to exchange newsletters with other clubs. Well, we got one back and it is a very good newsletter! Elsewhere in the Crosstalk there is information for you DX chasers on a beacon (9L1FTN) that was installed and there was a hilarious article about learning Morse Code the hard way that we might reprint later. My congratulations to whoever sent them our newsletter. Now if I could just figure out what a "Natter Nite" is!

From the Library

George Lee, W6IOW

We have just received the renewal copies of the Kenwood and Icom Newsletters for this year. They are available where the W5L Report, Orbit, Amsat and other magazines are in the Club Ham Shack. Also we have added 2 ARRL books on Antennas and Satellite Communications as a result of the recent survey. We shall keep adding more books as new subjects come along.

We thank Paul Lucas, N6DMV, for his donation of Wireless World, a British magazine, for 1979 to 1981.

So, what's new in this month's issue of:

QST: Construction project on a digital switched capacitor filter; a simple, low cost computer control for the IC-270.

HR: VHF/UHF propagation; wideband VCO design; applied Yagi design.

CQ: Build a 432MHz Helix antenna for Oscar 10; Mobile power for HT's (two articles); review of the Icom IC-271A 2M transceiver.

73: "Let's have more Hams"; Nicad conditioner (a discharge unit)

SWAPMEET RAFFLE

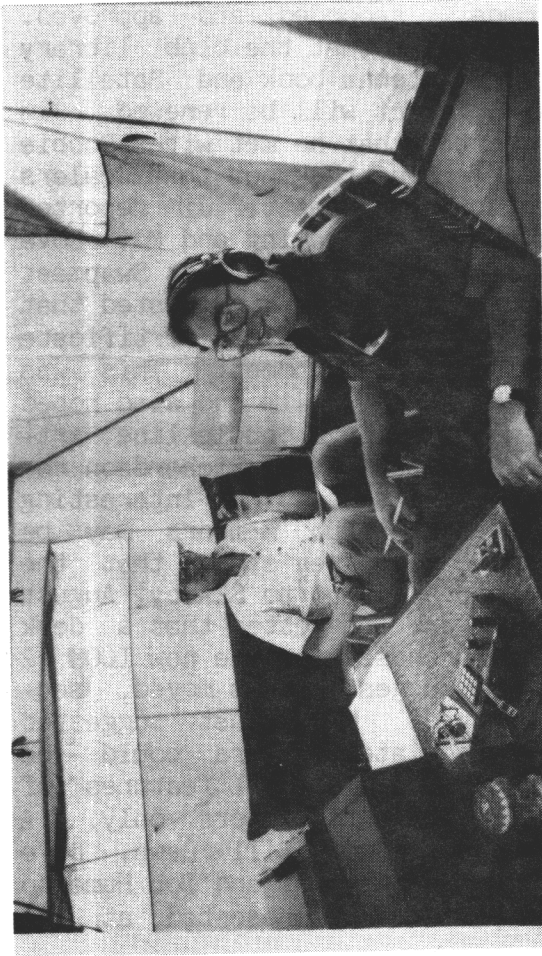
Ok, for all of you who only skim over the boring stuff and did not pickout the item in last month's EMB minutes about the Swapmeet Raffle, here are the details.

TRW/ARC members who show up at the Swapmeet with with your badge or hat or both are eligible for a raffle. All you have to do is find Jim McWilliams and show him that you are wearing your badge and/or hat and he will give you raffle tickets. You get one for your badge and one for your hat, and if you have both you double your chances of winning - you get two tickets! The raffle is open to all TRW/ARC members and you don't have to be around when the ticket is drawn to win. Win what? you say.... You will win a \$10 greenback good on any purchase made at the Swapmeet. It would also be greatly appreciated if you would write a few lines about your experience, what you bought, etc, that we can put into the Crosstalk. It would also be good to point out at this time that you can get a **FREE** TRW/ARC hat from Jim McWilliams if you volunteer to do on Saturday's stint helping out at the Swapmeet. So all you Associate members and offsite members (like Capistrano), here is your chance to get some benefits out of your membership and help the club too!

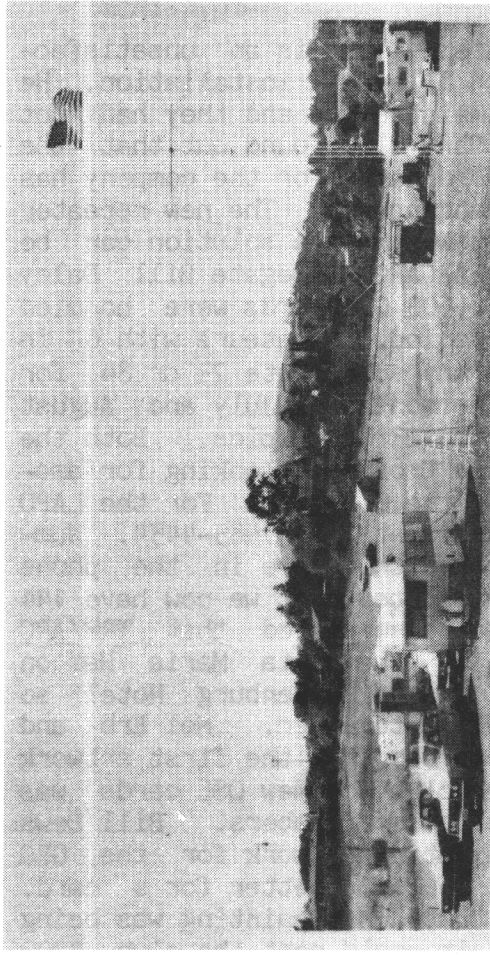
Executive Board Meeting 10 July 1984
John Keller, N6JLS

The meeting was called to order by Walt Larson and he immediately thanked Don Resor for getting out the agendas while Walt was recovering from eye surgery. Walt also stated that he is attempting to get Emmett Ingram as a speaker for August. The topic would be Amateur activities during the Olympics. John Keller accepted the minutes of the June EBM as printed in the Crosstalk. Paul Herbert gave a detailed report on the club's finances. Gary Komatsu stated that Field Day expenditures were within \$5 of the allocation. All stations except 40 Meter phone had turned in their reports of contacts made. A problem turned up in that the extension cords used on previous Field Days were not available this year. Gary wanted to purchase the required wire and outlets necessary for next year. A short in this year's lash-up knocked the generator off during the night as dew leaked in. Gary stated that we are also in need of more rope. Gary also stated that preparations need to be started for the Annual Awards Dinner and a chairperson was needed. Kathy Wachs volunteered and was accepted by the board. Bob Hume stated that the assembly of one KT34XA has progressed to the point that all further work must be done on the roof. A template has been made of the plate required for the rotor mount and the thrust bearing to go into what is now the middle section of the fixed tower. Bob presented a list of tools required in the club Ham Shack. Bob also stated that we have gotten requests for QSL cards from Field Day and the club has no printed cards left. Chris Wachs stated that the speakers at the Tuesday, 31 July noon Club Meeting will be Mike Corn and Jack Sam Bankson, WA6JXG who will have a slide presentation and discussion on line noise tracking techniques and spark generated interference and TVI. The presentation will be approximately 15 minutes of slides followed by a question and answer period. Dave Gilmore stated that there has been no activity with the TRW Emergency Coordinator. Dave expressed concern that the 15 ICOM HT's will probably be useless if ever needed as the batteries are not being properly cycled. Dave also stated that he puts regular updates to Part 97 of the FCC rules for anyone that is interested in looking up the latest changes. Gary Komatsu stated that a third repeater has been added to the E2 equipment room and that the coax run for this machine uses the conduit that

our repeater uses. This is an unsatisfactory, if not illegal, installation. He checked with maintenance and they had not installed it. Gary also found out that the former radio coordinator for the company has transferred to Vandenberg. The new repeater has been shut down until a solution can be worked out. LAACARC Delegate Bill Daley reported that 46,500 QSL cards were handled in a 2 month period. Amateurs with 6 in their call sign may substitute 23 or 84 for the 6 during the months of July and August to commemorate the 23rd Olympics. Both the LAPD and the Red Cross are looking for amateur help during the Olympics. For the LAPD call Officer Curtis at (213)485-4454. Numbers for the Red Cross are in the phone book. Bill Dews stated that we now have 144 members. He also suggested that TRW/ARC members going to the Santa Maria Hamcon reserve rooms at the Vandenberg Hotel so that we can all be together. Mel Erb and Paul Herbert reported that the first artwork presented to the club for new QSL cards was not acceptable to some members. Bill Dews presented an existing artwork for the GRO satellite that would be better for a card. Paul reported that a new painting was being done on GRO and it would cost the club \$200 for the negatives. A motion to spend the money was made, seconded and approved. George Lee reported that the club library now has an ARRL Antenna book and Satellite book. The W5YI report will be renewed. Jim McWilliams reported that he met with Bobbie Love of SEA concerning the fact that dealers are appearing at the Swapmeet. Jim reported on the measures we are taking and Ms. Love was satisfied. Winner of the first Swapmeet raffle was Gary Komatsu. Jim suggested that the prize be changed to a \$10 certificate for a purchase at the Swapmeet. This was agreed to by the board. Jim had also hoped the winners might write a couple line article for the Crosstalk. Jim Richardson requested that members sent to him interesting projects that other club members may be interested in. Bill Ivey stated that the Semi-annual report is due to SEA by August 13. Don Resor Jr. suggested that a desk microphone be purchased for the new ICOM 2 Meter rig. The suggestion was moved, seconded and approved. Mike Aust suggested that more associate members could be attracted if he opened special features of his 450MHz remote base to members only. A committee was formed of Bill Dews, Dave Gilmore, Jim Cox, Mike Aust and Bob Hume to create a proposal to be presented at the next EBM.



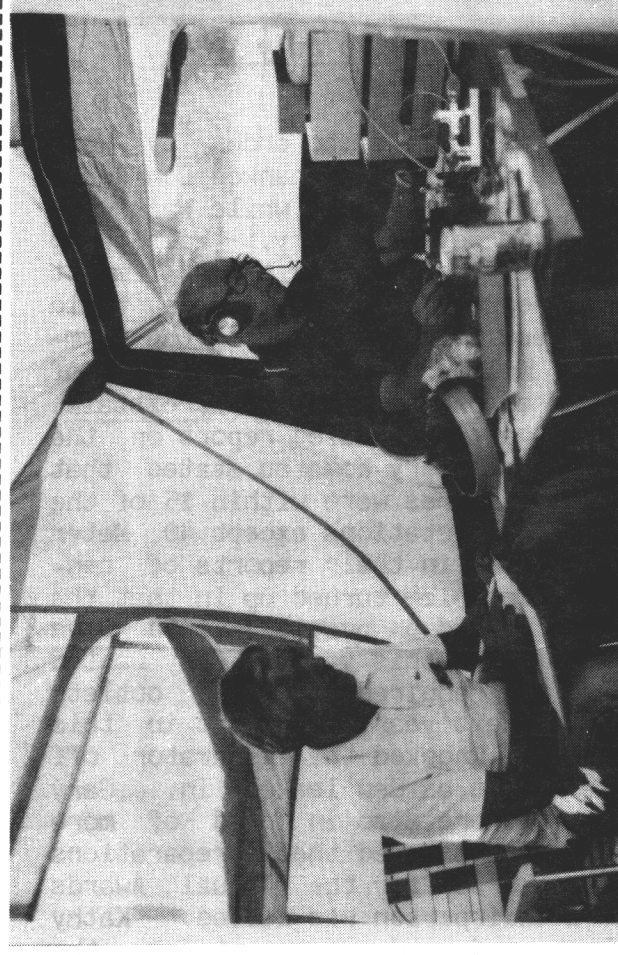
What are these guys smiling about? They just got fed! Now back to work!! Paul Wisiolek, K1TKL (left) was 15M CW Captain and Charlie Darrow, KF6CI came up Saturday afternoon to spell the 15M team and give me a chance to take this picture. Photo by N6JLS.



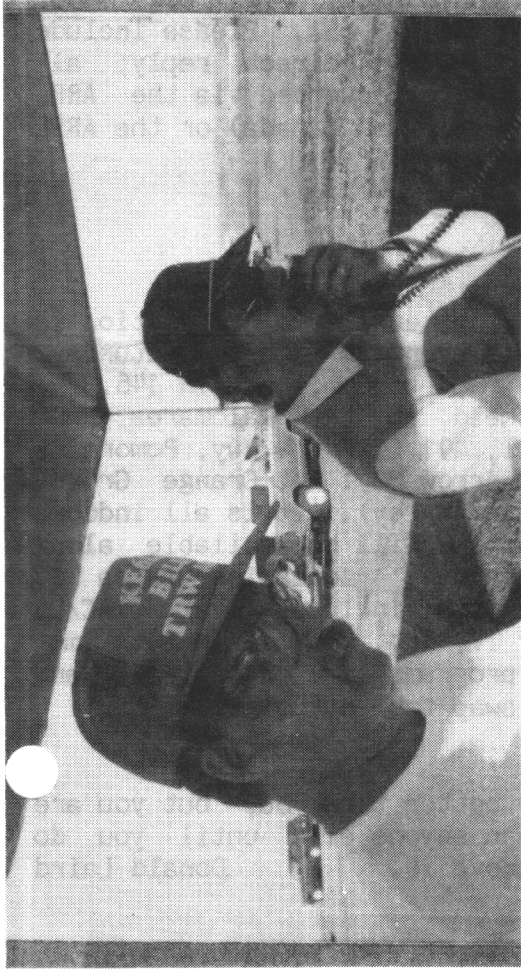
Here is the Field Day site. From left to right: the trailers are 20M SSB and 15M SSB; hidden directly behind them is 2M; the tent in the distant center is 20M CW; on the right is the generator, 15M CW in the tent and the Komatsu Gardens Restaurant; hidden behind all that is the 40M CW operation (you can barely make out the 40M 2-element dipole in the center of the picture. Photo by N6JLS.



No praise is too great and no THANK YOU can say enough to the YL's who supplied us with our meals. Pictured here are Alice Dews (left) and Ann Schrecengost (right) who supplied Saturday night's sumptuous feast. Not pictured is Sue Kennedy who supplied Sunday's breakfast "fit for a king." Mille Gratia! (1000 Thar. to all of you. Photo by WB6IDJ.



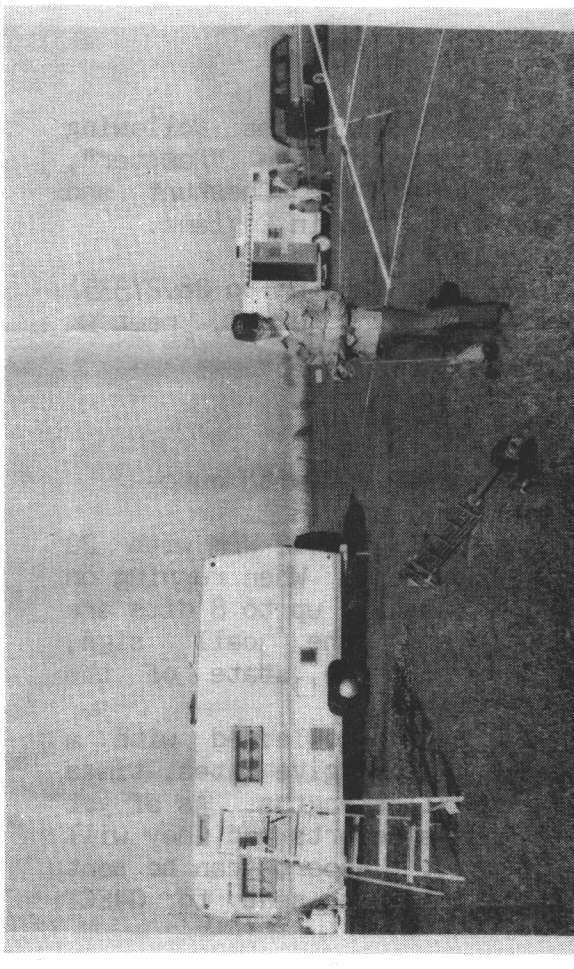
Mac Kozawa, KW6F and Shim Nakamura, W6AN gathering in a few more points on the 20M CW operation. These two guys did a great job working their first Field Day with the TRW/ARC. Photo by N6JLS.



Two more serious operators cannot be found, Bill Schrecengost, KE6LB and Bob Lace, W6ODI manning the 2M operation. Bob also supplied some video tape of the activities at the last meeting. Bob deserves a gold star as he came down with a virus that took his voice away as Field Day drew to a close. Photo by WB6IDJ.



Just in case you thought all that Jim McWilliams did was run the best Amateur Radio Swapmeet in Southern California, this will prove he can handle a key and rack up a few QSO's for the 40M CW operation. Photo by WB6IDJ.



What is this guy laughing about? His truck just got a flat tire and he can't get anyone to help him put up his antenna and he is supposed to be on the air in 15 minutes! Well, Carl Kennedy, WB6TDE, did get a flat, but he was still able to do the job as 20M SSB Captain, with plenty of time to spare. Photo by N6JLS Friday afternoon.



Barry Allen, WA4TTG and Club Trustee Bob Hume, KG6B doing a great job on the 40M CW operation. Between midnight and 1am these guys racked up 57 contacts! Total contacts was 619; 2X for CW and 2X for power gives 2476 points!! Fine business men! Photo by N6JLS.

Computer Nets

George Lee, W6IOW

According to the questionnaires received, quite a number of the members have, or were about to purchase computers. The following list is over the air nets that may be of interest. If you hear interesting or useful information over these nets please jot it down for Crosstalk publication.

Amateur Radio Computer Club

145.36MHz Wed	0300Z	So. Cal.
Apple Computer Net		
7.230 MHz Sat	1400Z	Western U.S.
Packet Radio Net		
145.36MHz Mon	0330Z	So. Cal.
Pet/Commodore Net		
3.825 MHz Thu	1200Z	Western U.S.
7.155 MHz Mon	0100Z	Western U.S.
7.235 MHz Sun	1900Z	Western U.S.
Sinclair/Timex User's Net		
7.235 MHz Sat	1900Z	Western U.S.
TRS-80 User's Net		
14.060MHz Sun	0000Z	Western U.S.
14.342MHz Sun	1900Z	Western U.S.

Experts have finally figured out what distinguishes man from all the other beasts: financial worries.

9L1FTN

For all of you DX chasers, the following information comes to us via the "Hamster", the club newsletter of the Cheshunt and District Amateur Radio Club in England.

Here are the technical details.

Frequency - 28.27250MHz (keying to 28.27335)

Location - Kortright, Mount Aureol, Freetown
08°30'N, 13°20'W

ASL - 400 Meters

Antenna - Vertical half wave

Power - 10 Watts to antenna

Supplies - 240 VAC or 12 VDC with auto-changeover

Keying - F1A "de 9L1FTN" at 12 WPM with 20 second interval. When running on standby supply, up to 8 dits are sent before the call sign, depending on the state of the battery charge.

All reports will be acknowledged with a special QSL card. Please give dates, times and approximate signal strengths. As of yet there are no overseas reports and they will be especially welcome. Reports can be sent to G4OAA directly or may be sent to G4ECT via buro.

1984 Summer Olympics Amateur Radio Station NG840 Jay Holladay, W6EJJ

Amateur Radio will be represented at the 1984 Olympic Games in Los Angeles by Amateur Radio Station NG840, located at the UCLA Olympic Village in Westwood. The station's primary purpose is to send messages home for Olympic participants from countries which permit third party traffic with the U.S. When time permits, commemorative contacts will be given to all callers.

NG840 will begin operation on July 14, 1984 as the athletes begin to arrive at the Village, and continue through August 14. Normal station hours will be daily from 9:00am to 9:00pm local PDT (1600 to 0400UTC) and some earlier morning operation is planned for better DX conditions. Operation is planned on HF bands using both CW and SSB and on 2 Meter FM. During general contact periods on HF, operation will be around 5KHz inside the U.S. bands, with frequent operation 5KHz inside the U.S. General Class segments and some operation in the Novice segments. 2 Meter FM operation will concentrate on 146.52MHz simplex during general contact periods.

QSL's for NG840 will be handled by the ARI Sixth District QSL Bureau, P.O. Box 1460, Sun Valley, CA. 91352, USA. Please include an SASE if you wish a direct reply; all other cards will be forwarded via the ARRL DX QSL Bureau (U.S. and Canada) or the ARRL Outgoing QSL Bureau.

HAMFEST '84

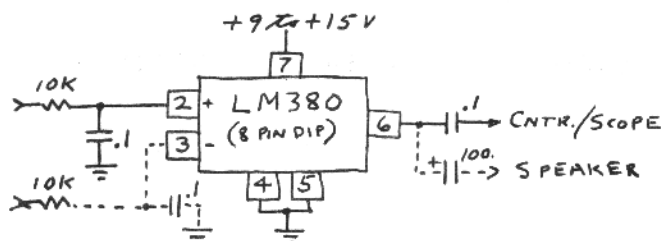
The Tri County Amateur Radio Association is sponsoring this event to be held Saturday, August 4, 1984; 8am to 4pm; talk-in 146.025+ It will be held at the Palomares Park Recreation Hall, 491 E. Arrow Hwy. Pomona CA (North side of Arrow Hwy. at Orange Grove, between Towne and Garey). It is all indoors and food and drink will be available along with free parking. Admission is a \$1 donation. Prizes include: 1st, AC/DC Portable Color TV; 2nd, Kenwood TM-201A 2mtr Xcvr. Many programs are on the bill and there will be swap tables too.

No one is any better than you, but you are no better than anyone else until you do something to prove it. Donald Laird

Measuring and Setting PL Tone Frequency

Jim Richardson, K6PDR

The circuit shown in the figure below provides "low pass" filtering and a voltage gain of 50. The input is supplied from your radio speaker output which usually has enough signal at the low PL frequency. Too much 120Hz ripple from your power supply can cause problems. The output provides about 1 volt of signal which will drive most any counter. The second input can be used to zero beat an oscillator with a known frequency. The zero beat can be observed on an oscilloscope or heard on a speaker. The LM380 has the capability of supplying 2 watts to a speaker, yet the quiescent power supply current is less than 10 ma. Therefore it is easily supplied from a 9 volt transistor battery as well as your radio power source.



The most accurate means of measurement is to use a counter that has period averaging capability. You just take the reciprocal of the period reading to get frequency. If you have only a frequency counter, a 1 second gate time will get an resolution of only 1 Hz. If you have a 10 second gate your resolution becomes 0.1 Hz which is fair. If you have or establish the capability of extending the gate time to multiples of 10 seconds, then the resolution becomes much better. A 100 second gate period would give you a resolution of 0.01 Hz. The LM380 costs \$.49 and is available in 8 or 14 pin DIP. I find it convenient to solder the parts and wires directly to the IC pins since the connections are few, rather than use a socket.

The secret of being tiresome is to tell everything. Voltaire

A luxury automatically becomes a necessity when you find you can charge it.

SANTA MARIA HAMCON

The plan at the moment is for members who are going to stay in a hotel to try to make reservations at the Vandenburg Hotel. There is a good possibility that by the time you read this the hotel will be full for that weekend. However, give them a try first at (805)922-6631. You may guarantee your reservation with MasterCard/Visa or American Express. If you need a registration form for the Hamcon, contact John Keller, N84JLS, at 55485 or by mail 82/2425. The registration form has a list of hotels in the area of the Convention Center. You can save yourself a cool \$5 by registering in advance for yourself and your YL. Hope to see you there and don't forget your badges and hats so the TRW/ARC can make a good showing.

SEE YOU THERE!!!

General Meeting 26 June 1984

John Keller, N6JLS

Nineteen members attended. The meeting was called to order by Vice-President Chris Wachs as President Walt Pearson was out with eye problems. Treasurer Paul Herbert stated that the club treasury is in fine order and that revenues from the Swapmeet are exceeding budget predictions. Secretary John Keller asked if there were any changes to the May meeting minutes as printed in the Crosstalk and when there were none, accepted the minutes as printed. Trustee Bob Hume stated that guy wires were replaced on the lowest section of the crank up mast and more assembly has been performed on the KT34XA HF antenna. Chris Wachs introduced the speaker, Fried Heyn, WA6WZO, Southwest Director of the ARRL. Mr. Heyn presented a video tape "At Any Moment - Amateur Radio and Disaster Preparedness." The tape covered all of the different aspects of the Amateur Radio Service that get involved during a disaster. These included RACES, ARES and NTS. There were also handouts for those interested in further information. Bob Lace, W6ODI, finished off the meeting with his video tape of antics at a TRW/ARC noon picnic and also the club's Field Day efforts. Door prizes consisted of 3 digital alarm clocks, a voltmeter, a battery charger, a calculator with memory, a bulk tape eraser and a soldering iron.

The more things change the more they stay insane.