

SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 51, Number 9

September 2026



SCCARA's Field Day

W6UW Statistics:

Band	Mode	QSOs	Points	Multiplier
7	FT8	50	100	2.0
7	LSB	17	17	1.0
14	CW	44	88	2.0
14	USB	47	47	1.0
21	USB	2	2	1.0

Totals 160 254

From the log:

Mode	Band	AC6YY	KF6FNA	KG6GO	KN6BEZ	W6JPP	WA6QYS	WB6YRU	Tot	Accum
CW	14	23			18		3		44	44
FT8	7							50	50	94
LSB	7		17						17	111
USB	14		14	2		3	28		47	158
USB	21	2							2	160
Total		25	31	2	18	3	31	50	160	160

I also did 73 QSOs from home credited to W6UW.

Mode	Band	AC6YY	Tot	Accum
CW	14	73	73	73
Total		73	73	73



73, Ned AC6YY

SOTA at Umunhum

Summits On The Air W6/CC-05 Mount Umunhum

Lorens KO6NNF and Ned AC6YY operated the summit on August 22, 2026 in the afternoon. It was a simple drive up the mountain and a short hike to get to the summit area. The area is being improved with proper trails, signs and sitting areas.

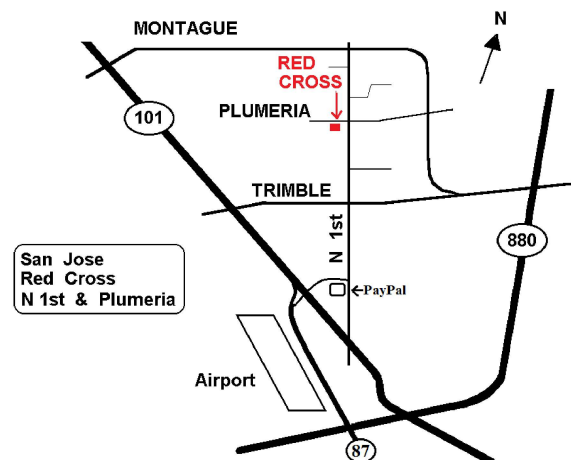
You cannot enter inside the radar building itself which probably would not have anything to see but it would be awesome

Calendar

9/14 SCCARA General Meeting
9/21 SCCARA Board Meeting
9/26 Club Station open

General Meeting

Day: Monday, September 14
Time: 7:30 PM
Place: San Jose Red Cross, meeting room 3
Featuring: {to be announced}



to operate from the top level if the building ever gets refurbished.

Equipment used:

Baofeng UV-5r for FM on 2 meters and 440 cm.

The Yaesu FT-818ND. It is a compact, all-mode portable QRP transceiver covering HF, 6 m, 2 m, and 70 cm bands.

Arrow II 146/437-10WBP handheld portable satellite antenna.

The AlexLoop lightweight portable HF magnetic loop antenna.

Operating a radio from a mountain peak gives you a much larger line-of-sight range and lets your signals travel vastly greater distances than from lower ground.

The **SCCARA-GRAM** is published monthly by the **SANTA CLARA COUNTY AMATEUR RADIO ASSOCIATION**, PO Box 106, San Jose CA 95103-0106.

SCCARA was formed in 1921 and became a non-profit corporation in 1947. SCCARA is an affiliate of the American Radio Relay League (ARRL).

The club station is **W6UW**, located at the San Jose Red Cross.

Permission to reprint articles is hereby granted, provided the source is properly credited.

The deadline for articles is the **last Monday of the month**.

Web page: www.sccara.org

BOARD OF DIRECTORS

(officers are also directors)

President	Gregg Lane KF6FNA	408-393-5607 texting preferred e-mail: kf6fna@comcast.net
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Webmaster	Ned Tufekcic AC6YY	408-690-7250 e-mail: t94nt@hotmail.com

SCCARA REPEATERS

SCCARA owns and operates two repeaters under the call W6UU:
2 m: 146.985 - PL 114.8
70 cm: 442.425 + PL 107.2

Phone auto-dial and auto-patch is available. The 2 m repeater is located at Eagle Rock near Alum Rock Park in the foothills of east San Jose. The 70 cm repeater is located at the Regional Medical Center (formerly Alexian), east of downtown San Jose, north of 280 and 101.

SCCARA NETS

On our 2 m repeater: Mondays at 7:30 PM, (not the second Monday--that's our meeting night); net control: Don Village, K6PBQ. On 10 m, 28.385 MHz USB, Thursdays at 8:00 PM; net control: *{to be announced}*. Visitors welcome.

N0ARY PACKET BBS

SCCARA hosts the packet BBS N0ARY (connect to n0ary-1). User ports: 145.09 MHz at 1200 baud, 433.37 MHz at 9600 baud, and telnet sun.n0ary.org (login "bbs"). Sysop: Gary Mitchell, WB6YRU. For general packet info, see the NCPA web site ncpa.n0ary.org.

AMATEUR LICENSE TESTING

ARRL/VEC Silicon Valley VE group: <https://www.svve.org>
Morris Jones, AD6ZH: 408-507-4698

Key Advantages:

Clear Line of Sight Radio waves for VHF and UHF frequencies travel in straight lines. Being on a peak removes intervening ground, hills, and ridges that normally block signals.

Massive Transmission Range High elevation lets low-power handheld radios reach stations dozens of miles away, or even connect with distant mountain repeaters.

Easier Access to Repeaters Mountain peaks put you closer to remote repeater towers, helping you relay emergency calls or chat across vast geographic regions.

Overcoming Terrain Traps Deep valleys and thick forests block signals completely. Climbing to a peak lifts your antenna out of these dead zones.

Amateur Radio Awards Programs like Summits on the Air (SOTA) reward operators with points for climbing peaks and making successful contacts from high elevations.



Our VHF/UHF antenna performed well. We contacted stations from all over the Bay Area, including Mount Vacaville, Mount Diablo, Richmond, and Novato.

On HF with the loop antenna, we had QSOs with stations in CA, WA, OR, ID, PA, and WY.



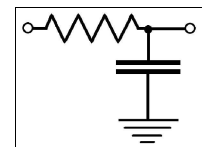
73, Ned AC6YY

Twin-T Notch Filter

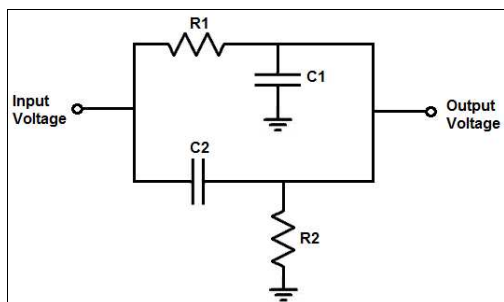
Filters are discussed at great length in the amateur radio literature, it's one of the main categories in radio. One in particular caught my eye some time ago, notable for its simplicity yet its sharpness – the twin-T notch filter. Well, I finally decided to build one and check it out.

As you may recall, there's not much to a basic RC filter, literally just one resistor and one capacitor. It's a low-pass wired one way (shown here) and a high-pass wired the other way.

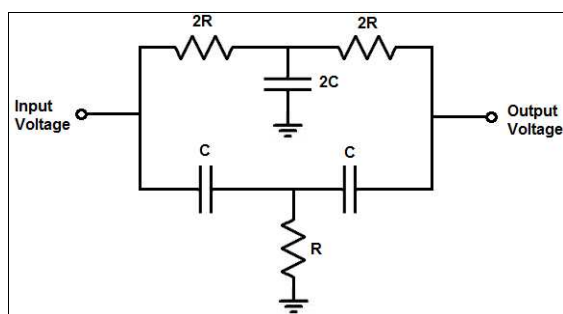
Their simplicity makes them very popular if good performance is not needed. Typically the roll-off of an RC filter is 20 dB per decade or 6 dB per octave. That's OK, but not great.



Two RC filters can make a simple band pass or band reject filter. In this case the top RC is a *low-pass* filter, it lets through frequencies *below* its cut-off point; and the lower RC is a *high-pass*, it lets through frequencies *above* its cut-off point.



Now, the twin-T notch filter is just 3 resistors and three capacitors--that's it! With just a little imagination, you can see where the "twin-T" name comes from:



Notice: most of it is just that same dual RC filter, which really isn't that great of a filter. So how in the world could adding just one more RC turn it into a sharp notch filter?

Well, it's complicated. It has to do with the phase relationship at each point in the circuit. The short answer is: At one particular frequency--just one--there will be two copies of the signal at the output terminal 180 degrees out of phase with each other, so they cancel out!

It's really an ingenious trick. In order to pull it off the component values have to be exactly matched, and the values in the top 'T' are twice the values of the bottom 'T'. One thing that makes it easier is that the resistance value, R, can be almost anything (within reason) **OR** the capacitance value, C, can be almost anything (within reason), but not both. This should help:

$$\text{Notch Filter Frequency} = \frac{1}{4\pi RC}$$

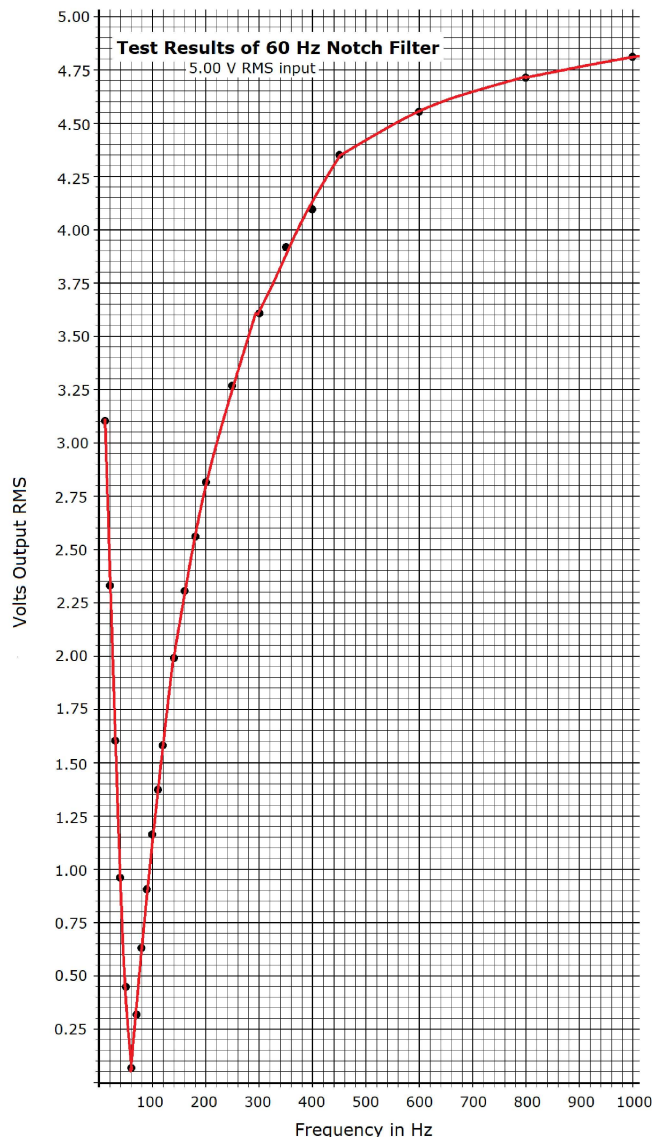
For a given frequency, pick a value for R and calculate the needed value of C, or vice versa. If it will be driving a low resistance load, R needs to be relatively small to avoid unbalancing the circuit. But use caution: you'll need capacitors to match--a smaller R means larger C.

For my test filter frequency I chose 60 Hz. That would be good in an audio circuit to block the ol' dreaded sixty cycle buzz. This kind of filter is especially good for low frequencies because it has no big heavy iron-core inductors.

I picked 1 kΩ for R (mainly because I had some that were exactly 1000 Ohms), so C had to be 1.326 μF. And the other values are 2 kΩ and 2.653 μF. That's an odd value for capacitors, but by combining two or three carefully chosen smaller capacitors in parallel I was able to get it very close.

And the results? Surprisingly good. With a 60 Hz signal input of 5 V RMS, there was about 80 mV out. That's 36 dB down.

I have two different meters capable of measuring these values. The resistors are within 0.05% of what they should be (both meters), but the capacitors were not as well matched, within 1.56% or 3.0% of what they should be, depending on which meter we want to trust. If I were to be more exact with the capacitors, presumably the notch would be even deeper.



In retrospect, it probably would have been easier to use matched capacitors of standard values and then use potentiometers to get the resistances exactly right.

One thing I wasn't too thrilled about is that capacitors of 1.3 μF and 2.6 μF are hard to come by except for electrolytics. The problem with electrolytic capacitors is they're notoriously unstable, especially over time. That's not a problem for power supply ripple filters, but it is for applications like this. At least tantalum electrolytic capacitors are better. And electrolytics are to be expected for a filter at such low frequencies. 😊



73, Gary WB6YRU

Meeting Minutes

General Meeting, Aug 10, 2026



Room 3, American Red Cross, N 1st & Plumeria, San Jose, CA

Meeting called to order by President Gregg Lane KF6FNA at 7:45 PM

Customary self introductions. Donald KG6GO, Ned AC6YY, John W6JPP, Janet KF6PUQ, Lou WA6QYS, Gary WB6YRU, Gregg KF6FNA.

Announcements

Gregg KF6FNA:

- SCCARA members helped SVECS host the last electronic flea market.
- September is the last electronic flea market of this year, SCCARA has a chance to host it. The board will decide at its next meeting.
- The club station will be open Aug. 29, last Saturday of the month. Call on the repeater to make sure we're there before coming down.
- We may have a picnic in September, to be announced.
- Board meeting on the repeater next Monday after the net.

Discussion about the article on software radios vs analog radios in the last SCCARA-GRAM written by ChatGPT. Most thought it was pretty good, but it was a little thin on technical aspects. Ned AC6YY pointed out that advanced software radios have superior performance in many ways, gave examples. That wasn't mentioned much in the article. Is A.I. up to the task of good technical articles? It's getting better all the time. The consensus was that more articles written by A.I. would be OK as long as it's clear who/what the author is.

It was suggested the club station should have a couple of headphones. The board needs to decide on the purchase.

Discussion on our antenna trailer: John W6JPP mentioned the need to get the antenna trailer in good operating condition. We've talked about this before but still haven't done it.

Gary WB6YRU: We haven't used the antenna trailer/tower in years. Setting it up isn't a simple operation and there are safety concerns. The club isn't as big as it used to be, do we still have the man-power? (The unspoken suggestion was that we may want to consider selling it.) He wrote a "how-to" document, will send a copy to Gregg.

Meeting adjourned 8:52 pm

Gary Mitchell WB6YRU, Recording for the Secretary

Board Meeting, Aug 17, 2026



Held verbally on our 2 m repeater W6UU/R

Meeting called to order by President Gregg Lane KF6FNA at 7:41 PM

Attendance: President Gregg Lane KF6FNA, Treasurer Ned Tufekcic AC6YY, and Station Trustee Don Village K6PBQ. Directors Lou Steirer WA6QYS, Wally Britten KA6YMD, and Janet Motha KF6PUQ.

Absent: John Parks W6JPP
Visitors: Gary WB6YRU, editor

Announcements

Gregg KF6FNA:

The next general meeting will be on Monday, 9/14/2026.

The next board meeting will be on Monday, 9/21/2026 on the repeater after the Monday night net.

The club station will be open on Saturday, 8/29/2026, 10 am to 4 pm.

PARA will be sponsoring the Sept. electronic flea market (last one this year).

Officer Reports

President's Report, Gregg KF6FNA:

We had a get-together and picnic at Mary Gomez Park where we tested out our balun projects. We'll have another one, to be announced.

Janet KF6PUQ: I thought it was cancelled.

Gregg KF6FNA: I'll do a better job about that in the future.

Secretary's Report, (vacant):

Gregg KF6FNA: The meeting minutes were published in the SCCARA-GRAM.

For the general meeting on 7/13/2026, any corrections? (nothing heard)

Any opposed to accepting minutes as published? (nothing heard)
Accepted as published.

For board meeting on 7/20/2026, any corrections? (nothing heard)

Any opposed to accepting minutes as published? (nothing heard)
Accepted as published.

Treasurer's Report, Ned AC6YY: Checking account: \$11732

Don K6PBQ: Move to accepted

Janet KF6PUQ: Second

Gregg KF6FNA: Any opposed? (nothing heard)
Report accepted.

Station Trustee's Report, Don K6PBQ: Nothing new to report.

Standing Committees

Editor's report, Gary WB6YRU: The August edition had an article by ChatGPT, it was the first time we had an article written by A.I.. Most people at the August general meeting seemed to think it was pretty good and more would be OK as long as the source is properly identified.

BBS Sysop's report, Gary WB6YRU: The BBS was stuck, one of its database files was corrupted and that stopped it from running properly. That's been fixed and it's back in operation. I'm currently working on a new forwarding link to N2MH on the East coast.

Repeater Chairman's report, Goetz K6GKB

Gregg KF6FNA: I've contacted Goetz who tells me everything is working as it should.

Webmaster's report, Ned AC6YY: The web site running OK. I posted the latest SCCARA-GRAM, no issues.

Old Business

Gregg KF6FNA:

- The radio room needs a way to switch antennas to the radios. Some proposals have been made. Those interested in working on it are myself, Gary WB6YRU, and George N6NKT. Anyone else interested? Let me know.

- The Red Cross is reluctant to let us have a steel tower on the roof because of the weight. We have one there, it needs to come down. We have a beam up there on a telescoping mast. That

might be light enough for the roof but not so great for the beam which is fairly big and heavy. Any ideas, suggestions, let me know. Keep your eyes open for a light weight (aluminum) tower at the flea market.

- We voted to dispose of two defective Kenwood radios. Lou WA6QYS took them and is getting them repaired. As thanks he is getting a new \$60 microphone for the Yaesu rig at the club station. If we get the exiting one repaired, it will be a spare.

New Business

Gregg KF6FNA: A few of us tried some vertical antennas at a park in East San Jose. We may do that again, and activate the park as part of POTA (Parks On The Air).
Any other new business? (none heard)

Gregg KF6FNA invited Don K6PBQ to close the meeting.
Adjourned at 8:03 PM

Gary Mitchell WB6YRU, recording for the Secretary

Packet Pieces

Downloaded from the BBS packet network:

=====

Date: 14 Apr 2020 23:08
From: GM3YEW@GB7YEW
To: HUMOUR@WW
Subject: jokes 15/4

Places to visit

I have been in many places, but I've never been in Kahoots. Apparently, you can't go alone, you have to be in Kahoots with someone.

I've also never been in Cognito. I hear no one recognizes you there.

I have, however, been in Sane. They don't have an airport; you have to be driven there. I have made several trips there, thanks to my children, friends, family and work.

I would like to go to Conclusions, but you have to jump and I'm not too much on physical activity anymore.

I have also been in Doubt. That is a sad place to go and I try not to visit there too often.

I've been in Flexible, but only when it was very important to stand firm.

Sometimes I've been in Capable and I go there more often as I'm getting older.

One of my favorite places to be is in Suspense! It really gets the adrenaline flowing and pumps up the old heart! At my age, I need all the stimuli I can get!

I may have been in Continent, but I don't remember what country it was. It's an age thing. They tell me it is very wet and damp there.

Need Help?

Amateurs have a long history of helping each other. An experienced amateur who helps another is traditionally called an "Elmer." If you have a question or problem, you are encouraged to ask one of SCCARA's Elmers. Below is a list of topics and who to contact for each. If your topic isn't listed, ask one of the Elmers under the topic that comes closest and we'll ask around.

If you consider yourself to be reasonably competent in at least one area of amateur radio and would be willing help others, please fill out an Elmer form (available from the club secretary or on our web site).

Topics:

Antennas, feed-lines, tuners: **NV6W, W6JPP, K6PBQ**
CW (Morse code): **NV6W, K6PBQ**
DX (long distance, propagation): **NV6W**
EchoLink: **K6GKB**
Emergency operating, preparedness: **WA6QYS**
HF operating techniques: **NV6W, K6PBQ**
Homebrew projects, construction: **WB6YRU**
Legal, FCC rules: **WB6YRU**
License testing, new amateurs: **W6JPP**
Lightning protection, grounding: **WB6YRU**
Packet Network (BBS, forwarding): **WB6YRU**
SCCARA (club inner workings): **K6PBQ, WB6YRU, WA6QYS**
Station set-up, equipment: **K6PBQ, W6JPP**
TVI, RFI: **WB6YRU**

Contacts for the above topics:

K6GKB, Goetz Brandt, 408-259-7287
e-mail: goetz@ix.netcom.com

NV6W, James D. Armstrong, Jr.,
evening & msg: 408-670-1680

W6JPP, John Parks
e-mail: w6jpp@arrl.net

K6PBQ, Don Village, 408-263-2789

WA6QYS, Lou Steirer, 408-241-7999
e-mail: wa6qys@arrl.net

WB6YRU, Gary Mitchell, 408-269-2924
packet: home BBS N0ARY
e-mail: wb6yru@ix.netcom.com

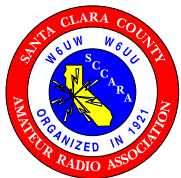
Newsletter Notes

I tried to avoid too much math in my filter article. But if anyone is interested, I'd be a happy to go into that with a follow-up article.

In Ned's Field Day article that showed of some of our statistics, I was a little dismayed at the relatively low contact count we did this year. In past years it was common to have that many contacts or more at just one station. Let's make a point of doing better in 2027!



73, Gary WB6YRU

**SCCARA**

Santa Clara County Amateur Radio Association
PO Box 106
SAN JOSE CA 95103-0106

**FIRST CLASS****ADDRESS SERVICE REQUESTED****SCCARA Membership for 2026**

If renewing and none of your info has changed, please only fill in your name and call

Name: _____ Call: _____ Class: _____

Address: _____ Licensed since (year): _____

City: _____ State: _____ Zip+4: _____

Telephone: _____ ☐ New Member ☐ Renewal ☐ I'm also an ARRL member

E-mail: _____

For delivery of the SCCARA-GRAM (pdf) and club announcements

Membership type and dues: ☐ Individual, \$20 ☐ Family, \$25 ☐ Student, \$10 (under 18)

All memberships start January 1 and expire December 31.

Family memberships (more than one member per household): please include the above info for each member, use separate forms.

New members:

Dues are prorated: dues x (11 - month) x 10% For example: July would be \$20 x (11-7) x 0.1 = \$8

If joining in November or December: normal dues for next year, the rest of this year is included free.

☐ I want the paper newsletter delivered by U.S. Mail for an additional \$15 per year
Prorated, \$1.25 per month. That's \$13.75 if starting in February, \$12.50 if starting in March, etc.)

\$ _____ Total enclosed

Give this completed form and payment to the Secretary or Treasurer at any meeting or mail to the club address.