

SCCARA-GRAM



Santa Clara County Amateur Radio Association



Volume 35, Number 7

July 2019

President's Prose

I would like to thank everyone who helped with the Electronics Flea Market that SCCARA sponsored at Fry's Sunnyvale. ASVARO complimented SCCARA on how well it went. Some of the funds raised will be used for an improved HF Digital Station that we will use on Field Day this year.

Preparations started with Lou WA6QYS and Svend KF6EMB renting a trailer and loading it with supplies on Friday. Svend showed up at 4:30 A.M. on Saturday so that set up of the tent could begin and the coffee started. Lou showed up later with donuts and some items that were donated to SCCARA that were sold by Gary WB6YRU at a SCCARA Sales Table.

The admission gate was manned from 3 A.M. by Paul KK6HWN, Seth KF6UZX, Clark KK6ISP, and Goetz K6GKB. They managed to sell every vendor stall.

The concession tent was operated by Janet KF6PUQ, Truman N6TRU, Don K6PBQ, John W6JPP, Rusty KI6ZSK and Dave K6WA.

The set up / tear down and parking lot volunteers were Wally KA6YMD, Dave KK6US, Yasu KM6VCG, Bill KM6QCS, James KM6TVT, Alvin W6ATW, Gary WB6YRU, and Ned AC6YY.

Thanks to Mike KN6QI for all of his organizing skill and to Ed WB6IQN for negotiating the use of Fry's parking lot.

Field Day was on June 22-23 this year. SCCARA was operating from the SCCARA Club Station at the Red Cross thanks to George Williams N6NKT (who is our ARC contact).

73, Gregg KF6FNA, kf6fna@comcast.net



Field Day Location

This is the second time we've operated from our club station at the Red Cross. It's not the same as camping in the forest like we used to do at Mt. Madonna Park, but it has air conditioning and no noise from generators. And we still can have a BBQ out on their patio. Our class is 2F or 3F instead of 2A or 3A. If that matters.

So, what do you think? Good... Bad... Indifferent?

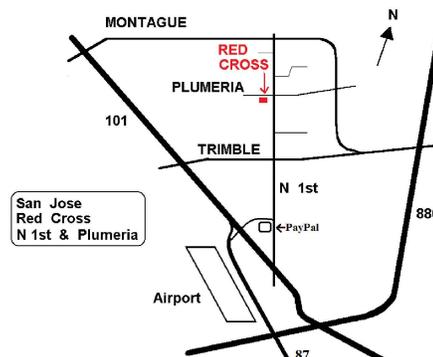
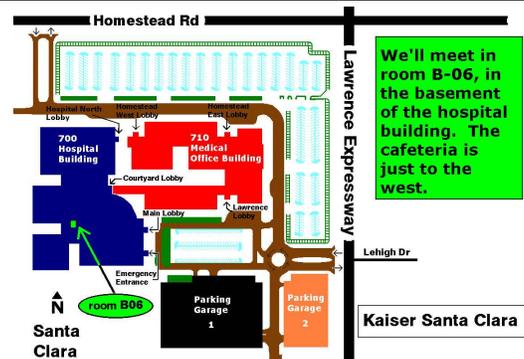
73, Gary WB6YRU

Calendar

- 7/8 SCCARA General Meeting
- 7/13 Electronic Flea Market
- 7/15 SCCARA Board Meeting--(San Jose Red Cross, 7:30p, all are welcome)
- 7/27 Club Station open, 10 AM - 4 PM

General Meeting

- Day: Monday, July 8, 2019
Time: 7:30 PM
Place: Kaiser Santa Clara, Hospital B-06
Featuring: Bob KC6TYD on parachute mobile



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.

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.qsl.net/sccara

club email: w6uw@arrl.net or w6uw@sbcglobal.net

BOARD OF DIRECTORS

(officers are also directors)

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SCCARA REPEATERS

SCCARA owns and operates two repeaters under the call W6UU:

2 meter: 146.985 - PL 114.8

70 cm: 442.425 + PL 107.2

Phone auto-dial and auto-patch is available. The two meter 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 two meter repeater: Mondays at 7:30 PM, (not the second Monday--our meeting night). Coordinator: Don Village, K6PBQ. On ten meters, 28.385 MHz USB, Thursdays at 8:00 PM. Net control: Wally Britten, KA6YMD. 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:
Morris Jones, AD6ZH: 408-507-4698

Field Day Photos



The 2 m FM Simplex Station...



... and the 2 m Station's vertical antenna.



Wally KA6YMD making a contact at the HF Phone Station...



Mike KJ6MIC at the GOTA Station...



... with Ron W8RLJ logging...



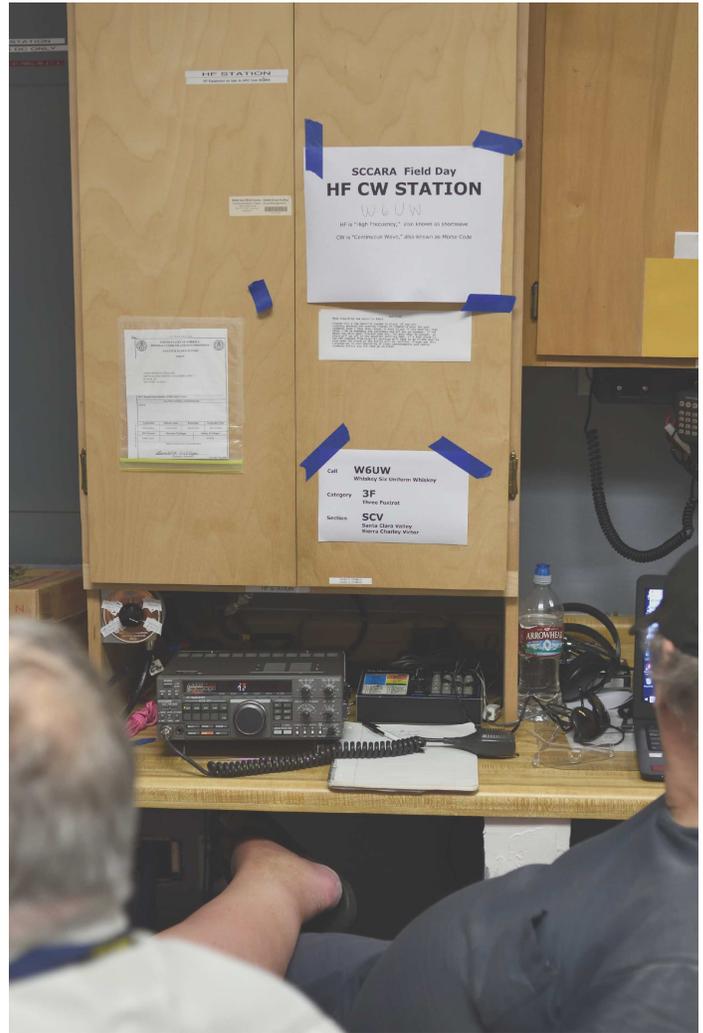
...and the vertical antenna (right) for the HF Phone Station.



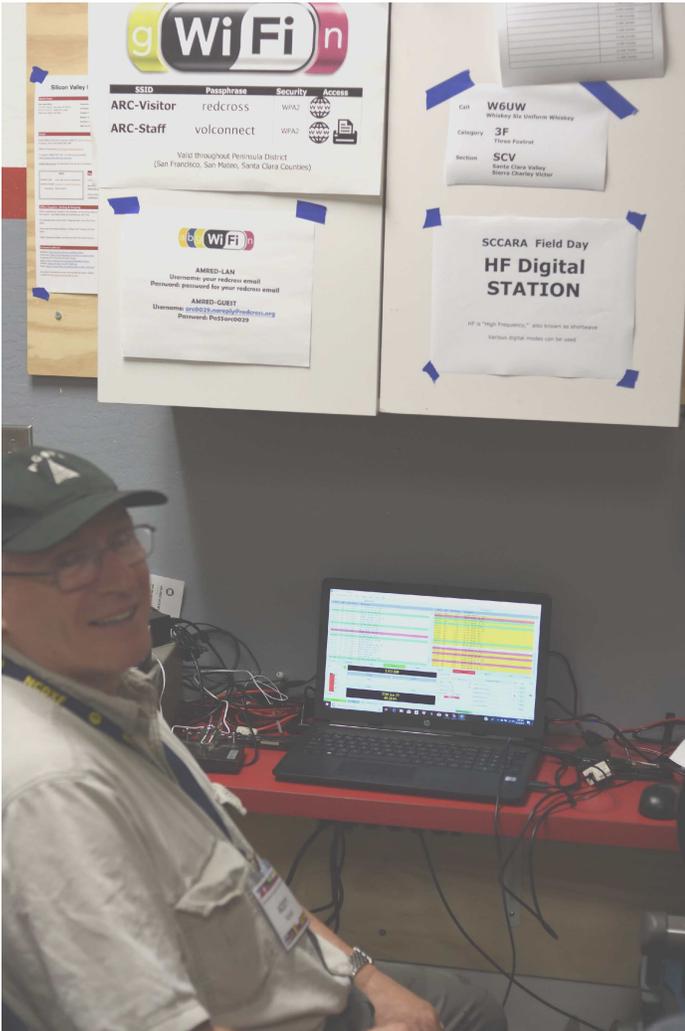
... and the GOTA Station's end-fed long wire antenna, which disappears into the distance to the East.



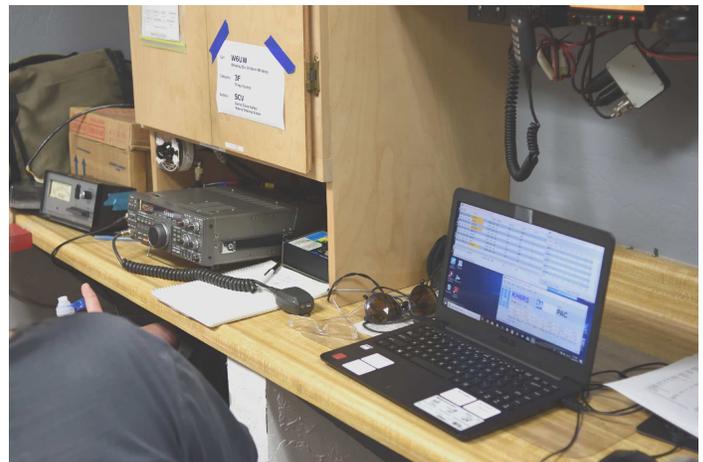
Ned AC6YY trying to make a HF Digital contact...



The HF CW Station. Hey... that's not a key!



... made the contact!



Yeah, that's a mic alright! What's gives?

The HF Digital and HF CW stations shared space in the radio room (the club's regular station) at the San Jose Red Cross. The HF phone station is just outside, in the same radio room where we hold our board meetings. The 2 m and GOTA stations shared another room down the hall and around the corner.

The logging software links all the computers together and keeps one big log including all stations. So any given station can be Phone, CW, or whatever--the software keeps it all straight.

Photos by Gary Mitchell, WB6YRU

ARRL News

From *The ARRL Letter*, June 13, 2019

Tuning Electrically Short Antennas for Field Operation

An article, "Tuning Electrically Short Antennas for Field Operation," by two well-known amateurs, appeared in *Microwave Journal*. Authored by QEX Editor Kai Siwiak, KE4PT, and award-winning researcher Ulrich Rohde, N1UL, the article points out that both Amateur Radio and military applications exist for 20 W battery-powered radios equipped with whip antennas. "In general, the whip antenna [that] makes the radio portable is not optimized for signal propagation: A whip antenna has no ground return or proper counterpoise," the article notes. "While some users drag a wire of up to 8 meters behind, this is not an ideal solution."

<https://www.microwavejournal.com/articles/32231-tuning-electrically-short-antennas-for-field-operation>.

As the article explains, electrically short antennas -- typically 0.1λ or shorter -- look like a capacitor, with a typical capacitance of 25 pF per meter of length. "At 2 MHz, where the wavelength is 150 meters, an inductor of 84 μH is required for resonance," the article says. But just getting a good VSWR is not all there is to it.

Rohde told ARRL that loading coil placement in a short vertical antenna is critical, and "the greater the elevation of the coil, the better the radiation." He said that "center loading" -- he considers the "best compromise" to be more on the order of two-thirds' loading -- can dramatically affect both the antenna's transmitting and receiving performance, as opposed to base loading, as found with popular so-called screwdriver antennas. Radials of some sort also are essential.

As the article points out, "With center loading, both the radiation resistance and integrated surface are larger, which are better for radiation." Inductors are the lossy components of an antenna tuner, while capacitors "are infinitely better." The authors conclude that, for optimal operation, antenna radials should be 0.25λ , with one sufficient for tuning, and up to four producing a symmetrical azimuth. "Connecting the HF radio ground to a large metallic object is a good choice," the article said.

Ulrich told ARRL that optimizing an antenna in the manner the article describes will produce "significantly better" signal reception, although a short antenna will also have a narrower bandwidth. The objective should not be to get a good VSWR but to keep in mind that there's a difference between resonance and radiation.

"These requirements for optimum antenna performance make HF manpack radios somewhat complicated and unattractive," the authors concede. "Nonetheless, the well matched and radiating antenna provides the most success, and some of these highly portable radios provide vital communications in disaster areas -- recently in Puerto Rico and South Florida."

Wireless Power Transmission Prompts Discussion in ITU-R Study Group

The emerging wireless power transmission (WPT) technology and associated applications came under closer scrutiny during the May/June meeting of International Telecommunication Union Radiocommunication Sector (ITU-R) Study Group 1 and its Working Parties. Participants wrapped up 7 days of sessions in

Geneva on June 7, with International Amateur Radio Union Region 1 (IARU-R1) President Don Beattie, G3BJ, representing the IARU. The primary concern over WPT centers on its interference potential.

"Work was advanced on reports on WPT at 100 - 148.5 kHz for low-power charging of portable devices, for WPT for electric vehicles (WPT-EV) at around 20, 60, and 85 kHz, and for 'beam' WPT for remote charging," IARU Region 1 reported. "All of these technologies have the potential for harmful interference to radiocommunication services if not carefully managed, particularly the harmonics of the WPT systems."

The IARU has submitted formal studies on the impact of WPT on the Amateur Service, and these have been incorporated into a single completed report and will inform a new recommendation being developed on WPT emissions.

IARU says it's advocating "proper emission limits" to protect radio services and is working with other spectrum users and administrations that share its concerns.

The ITU meetings discussed emerging proposals for WPT-EV emission limits from the International Special Committee on Radio Interference (CISPR), where there is a level of concern that these limits fall short of providing the necessary protection to radiocommunication services. Founded in 1934, CISPR sets standards for controlling electromagnetic interference in electrical and electronic devices and equipment.

The issue of WPT-EV is World Radiocommunication Conference 2019 (WRC-19) Agenda Item 9.1.6. In a WPT status report at the IARU Region 1 Interim Meeting in Vienna in late April, Beattie said the Amateur Service is "highly susceptible to any increase in the background noise level," such as that WPT might generate.

He said frequencies being planned for WPT are 19 - 21 kHz for high power; 55 - 65 kHz and 79 - 90 kHz for medium power, and 100 - 148.5 kHz for lower power -- but still up to 2.4 kW.

"WPT is generally high duty cycle, located in residential areas, and its harmonics are likely to be spread across a band of frequencies, in some cases the whole of the HF spectrum," Beattie said in his presentation to the Vienna interim meeting.

From *The ARRL Letter*, June 20, 2019

"Symbol Rate" Proceeding

ARRL has filed an interim report (https://ecfsapi.fcc.gov/file/10612301212113/ARRL%20Letter%2006_11_2019.pdf) with the FCC in order to report on its efforts to find common ground regarding issues surrounding the "symbol" or "baud" rate proceeding, FCC Docket WT 16-239 (the FCC has issued a Notice of Proposed Rulemaking (<https://ecfsapi.fcc.gov/file/0728122180423/FCC-16-96A1.pdf>) in WT 16-239, which stemmed from ARRL's rulemaking petition RM-11708). ARRL highlighted that the public benefits from the FCC's "fairly flexible" regulation of Amateur Radio, citing innovative developments in digital technology, including WSJT-X.

Noting that more than 1,400 comments in total have been filed in this and on a related rulemaking petition, RM-11831 (<https://ecfsapi.fcc.gov/file/100918881206/PETITION%20FOR%20RULEMAKING.pdf>), ARRL pointed out that, as in other Commission-regulated areas, adapting current regulations to rapidly evolving technology presents challenges that may require adjustments to, or clarifications of, the governing regulations.

Making such adjustments can be a challenge to ensure that valid regulatory purposes continue to be served without hindering technological change and innovation in the process.

While a June 11 meeting organized by ARRL had to be reset to accommodate the invited parties, ARRL has re-affirmed its commitment to protecting the interests of all amateurs. ARRL said it will continue to pursue its efforts to address and reconcile differing opinions expressed in the two matters now pending before the FCC.

Meeting Minutes

General Meeting, June 10, 2019



Conference room B-06, Kaiser Hospital building, Lawrence Expressway and Homestead Rd, Santa Clara, CA.

Meeting called to order by President Gregg Lane KF6FNA at 7:32 PM

Customary self introductions.

Announcements

President Gregg KF6FNA:

June 22, 23 is Field Day.

Club station will be open on June 29.

Work is proceeding on the antenna trailer.

July 8 meeting, KC6TYD will talk about parachute mobile, talking HAM on the way down.

Last Saturday of most months, club station is open, good chance to operate HF, located in the Red Cross, room 15, "Santa Clara Room"

Field Day:

Our category will be 2F, that's two HF transmitters using commercial power. The GOTA and 2 m VHF stations don't count. We may operate 3F if we can get a separate digital station. We'll be at the Red Cross, San Jose, N 1st St and Plumeria. At night the front door may be locked there will be a sign with a phone number, and we'll monitor our 2 m repeater. We'll use our regular radio room and others with different stations. Family and friends are welcome.

Info officer: Gary WB6YRU (will publish info sheets and flyers)

Safety officer: Wally KA6YMD

GOTA station: Wally KA6YMD (Get On The Air), located just past the break room.

For people 18 years or younger, first contact is worth 20 points.

HF CW station: Lou WA6QYS, Don K6PBQ, at the club's regular station

HF Digital station:

Ned AC6YY: still need to hook up the computer to the radio for digital modes. Mode FT8 is popular, we may run some others too. Truman also volunteered a radio we can use for digital.

HF Phone station: Gregg KF6FNA, located in the Santa Clara Room next to the radio room.

2 m FM Simplex station: to be announced

BBQ Saturday: Don K6PBQ.

We'll have lunch there, hotdogs etc, people taking classes at the Red Cross are invited. The rest is pot luck. The Red Cross has a refrigerator we can use.

Starts 11 AM PDT Saturday, goes for 24 hours. We don't know how many will be operating at night, but we'll see how it goes.

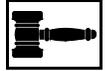
We'll have a antenna party there Friday June 21 to get some of the antennas set up.

Still need to get our location registered on the ARRL locator. We'll use N1NN Logger Plus for station logging. The GOTA station needs to be separate.

Meeting adjourned at 8:21 PM

Gary Mitchell WB6YRU, recording for the Secretary

Board Meeting, June 17, 2019



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

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

Attendance:

President Gregg Lane KF6FNA; VP Ned Tufekcic AC6YY; Secretary Barbara Britten KD6QEI; Treasurer Goetz Brandt K6GKB; Station Trustee Don Village K6PBQ; Directors: Lou Steirer WA6QYS, Wally Britten KA6YMD, James Rustermier KI6ZSK, Truman Lindsey N6TRU, Janet Motha KF6PUQ.

Visitors: Ron W8RJL, Judy W4JJY, Ed LeBell KD6LCA. Editor Gary Mitchell WB6YRU,

Announcements:

SVECS breakfast, July 27

SVECS will sponsor the next electronic flea market, they could use some help.

Wally has copies of the Field Day rules and Field Day bulletin schedule.

President's Report, Gregg KF6FNA:

July meeting will be on parachute mobile by Rob KC6TYD.

Vice President's Report, Ned AC6YY:

Got our new laptop nearly ready for Field Day.

Secretary's Report, Gary WB6YRU reporting:

The previous board meeting minutes were published in the SCCARA-GRAM. Motion by Don K6PBQ to approve the minutes as published. Seconded by Truman.

Passed unanimously.

Treasurer's Report, Goetz K6GKB:

checking = \$12940.94 savings = \$500.07 cash = \$109.04 Total = \$13550.05

Trustee's Report, Don K6PBQ:

June 29 the club station will be open, weekend after Field Day.

Standing Committees

Repeater chairman's report, Wally KA6YMD:

Backup is being worked on for the EchoLink.

Goetz K6GKB: Interference has been heard on our repeater, Tuesday, June 11, 8 - 8:30, just after the RACES net. We need to work on that. Wally KA6YMD: I think it's just one person. Lou WA6QYS will ask around, look into it, bring it up to Andy our local Official Observer.

Webmaster's report, Wally KA6YMD: Things are going along normally.

Editor's report: Gary WB6YRU:

We haven't had much detailed info about Field Day, working on that. Also working on signs and handouts. Other than that, nothing much new.

BBS Sysop's report: Gary WB6YRU: Nothing new to report.

Old Business:

Antenna trailer has been fixed up, tail lights and running lights. There's more to do, need lights for the end of the tower (more than just a red flag).
Report on SCCARA's 100 year anniversary QSL card is postponed (Rusty had to leave early).

Field Day:

Gary WB6YRU: we'll need the CX-333 antenna, mast, and coax from the trailer for the 2 m FM station. Gregg KF6FNA will retrieve those from the trailer.

Friday schedule:

Several of us will meet at the Red Cross at 2 PM Friday to set up antennas, etc.

Sat. schedule:

Don K6PBQ: BBQ will be active at noon and later in the evening.
Ned AC6YY: we can try to get the ARRL Field Day bulletin using RTTY on our digital station.

Gregg KN6FNA: George William N6NKT, Red Cross communications official will visit (official visitor).

Gary WB6YRU will write up a public service announcement about SCCARA's Field Day and send Ned AC6YY.

New Business:

Our Sony laptop has stopped working. Don K6PBQ: Motion to discard it. Second by Wally KA6YMD. Passed unanimously.

Meeting adjourned at 8:30 p.m.

Gary Mitchell WB6YRU, recording for the Secretary

Packet Pieces

Downloaded from the BBS packet network:

=====
Date: 22 May 2011 01:24
From: W1GMF@W1GMF
To: HUMOR@USA
Subject: Dangling Particles

- The burglar was about 30 years old, white, 5' 10", with wavy hair weighing about 150 pounds.

- The family lawyer will read the will tomorrow at the residence of Mr. Hannon, who died June 19 to accommodate his relatives.

~ Mrs. Shirley Baxter, who went deer hunting with her husband, is very proud that she was able to shoot a fine buck as well as her husband.

- Organ donations from the living reached a record high last year, outnumbering donors who are dead for the first time.

- The dog was hungry and made the mistake of nipping a 2-year-old that was trying to force feed it in his ear.

- We spent most of our time sitting on the back porch watching the cows playing Scrabble and reading.

- Hunting can also be dangerous, as in the case of pygmies

hunting elephants armed only with spears.

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:

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
e-mail: donvillage7@yahoo.com

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

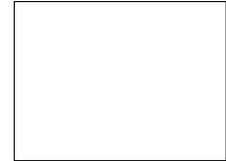
Field Day ended the day before the newsletter deadline, so this edition only has some photos. Watch for the August edition for details about how well we did.

And, of course, if you have any stories to tell about Field Day, it would be nice to read about it here!

73, Gary WB6YRU, editor



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



FIRST CLASS

ADDRESS SERVICE REQUESTED

SCCARA Membership Form for 2019

If renewing and none of your info has changed, we only need 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: _____

on ly for club communications and the SCCARA-GRAM newsletter (pdf)

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

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% (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 \$20 per year

(Prorated, \$1.67 per month. That's \$18.33 if starting in February, \$16.67 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.