

SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 33, Number 4

April 2017



President's Prose

Large and tall thanks to everyone who helped make SCCARA's flea market a success! Thanks to the toll gate crew that showed up at 3 AM and to the refreshment tent crew that showed up at 5 AM. Special thanks to Svend KF6EMB who offered his truck to tow the U-Haul trailer and who provided the ice and kept the coffee brewing. Very special thanks to Lou WA6QYS who choreographed the show and provided logistical expertise and inspiration.

The March speaker for SCCARA was Kenneth Finnegan K6KWF who spoke on "Sun Powered Radios: Harnessing Solar Power in the Name of Amateur Radio." Kenneth familiarized us with the parameters of solar cells, explained what to look for in a solar charger, and finished with some design examples for powering a radio shack off the grid. Kenneth brought samples of hardware used in a solar installation that he passed around for inspection. When his presentation was over, Kenneth asked if anyone was interested in building a magnetic loop antenna. When he identified several such home brewers, he handed each of them a vacuum capacitor for their project. He also handed out some shrink tube and an Anderson stile power distribution board. Strong finish!!! You can check out his blog: <http://thelifeofkenneth.com/>

Don't forget the SVECS breakfast on Saturday, April 22, 9 AM - 12 noon. On April 20-23 there is the DX Convention in Visalia. <http://www.dxconvention.com>.

73, Gregg KF6FNA, kf6fna@comcast.net



Ultra efficient antenna

New experimental conductive plastics at the Applied Materials Lab at Stanford have resulted in a Fresnel type lens that works even at long wavelength radio waves.

Lead scientists report that theoretically one could put a tiny isotropic radiator at the focal point of such a lens and get a forward gain of 72 dB. It would be just 10% the size of a two element Yagi, but with a much more narrow beam width.

Initial experiments at HF frequencies have produced a gain of 46 dB. Refinements to the setup using a reflector around the radiator itself that restrict the radiation toward the lens have already increased the gain to 61 dB.

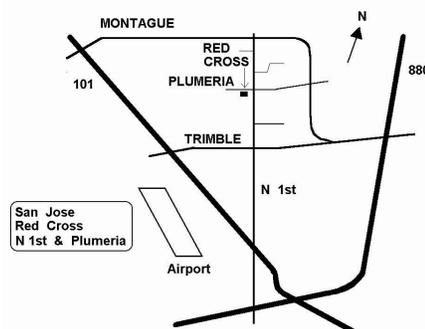
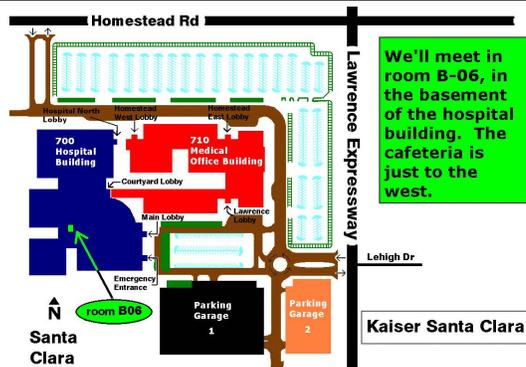
They stress that these initial tests are rudimentary, refinements will get them very close to the theoretical maximum gain. And this plastic is cheap and easy to make, just the thing for

Calendar

- 4/8 Electronics Flea Market
- 4/10 SCCARA General Meeting
- 4/17 SCCARA Board Meeting--(San Jose Red Cross, 7:30p, all are welcome)

General Meeting

- Day: Monday, April 10, 2017
- Time: 7:30 PM
- Place: Kaiser Santa Clara, Hospital B-06
- Featuring: {to be announced}



The **SCCARA-GRAM** is published monthly by the SANTA CLARA COUNTY AMATEUR RADIO ASSOCIATION, PO Box 106, San Jose CA 95103-0106. Permission to reprint articles is hereby granted, provided the source is properly credited.

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

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.

Web page: www.qsl.net/sccara

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(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

the amateur community...

April Fools!



ARRL News

From *The ARRL Letter*, March 9, 2017

More Countries Authorize 60-Meter Bands

Uruguay and Hong Kong join the list of countries that have established new bands in the vicinity of 5 MHz. The Final Acts of World Radiocommunication Conference 2015 (WRC-15) provided for a secondary international allocation of 5,351.5 to 5,366.5 kHz to the Amateur Service.

In Uruguay, new Amateur Radio regulations that came into force on February 24 provide for a 5,351.5-5,366.5 kHz 60-meter band as well as for allocations on 472-479 kHz, 47-47.2 GHz, and 77.5-78 GHz. In addition, radio amateurs in Uruguay now have extended allocations on 80 meters, 3,500-4,000 kHz, and on 160 meters, 1,800-2,000 kHz. The new bands and sub-bands were adopted according to the recently updated International Amateur Radio Union Region 2 (IARU-R2) band plan.

In Hong Kong, telecommunications authority OFCA has allocated 5,351.5-5,366.5 kHz to the Amateur Radio Service on a secondary basis. The maximum power permitted is 15 W EIRP.

While US radio amateurs have access to five discrete 60-meter channels, they do not yet have access to a contiguous band in that part of the spectrum. Comments are due on March 20 on ARRL's January 12 Petition for Rule Making to allocate a new, secondary amateur band at 5 MHz, while keeping four of the current five 60-meter channels -- one would be within the new band -- as well as the current operating rules, including the 100 W PEP effective radiated power (ERP) limit. The federal government is the primary user of the 5 MHz spectrum in the US.

The FCC has designated the League's Petition as RM-11785.

Former Business News Broadcaster Paul Kangas, W4LAA, SK

Business news broadcaster Paul H. Kangas, W4LAA, of North Miami Beach, Florida, died on February 28. He was 79. From 1979 until 2009, Kangas was the co-anchor of the popular Nightly Business Report on public television, on which he signed off wishing viewers "the best of good buys." He received an Emmy Award for Lifetime Achievement in Business and Financial



Reporting from the National Academy of Television Arts and Sciences.

"With his booming voice, easy laughter and quick wit, Paul Kangas was a tremendous asset to Nightly Business Report, right from its inception in 1979," said Linda O'Bryon, who once co-anchored with Kangas. "He helped invent stock market reporting on television." O'Bryon said Kangas, who worked without a script, had an "encyclopedic knowledge of the stock market."

Kangas was among the original members of an informal group that began meeting more than 3 decades ago on 20-meter SSB. Group member Bill Cate, K5EEF, told ARRL that Kangas was “a favorite with all of us, a great and fun wordsmith, with whom we would play spelling and definition games all the time.”

A graduate of the University of Michigan and the New York University Stern School of Business, Kangas was a US Coast Guard veteran and former stockbroker who broke into broadcasting as a stock commentator on Miami PBS station WPBT, becoming co-anchor of Nightly Business Report in 1990.

From *The ARRL Letter*, March 16, 2017

ARRL Weighs In on New California “Driving While Wireless” Statute

ARRL is recommending that Amateur Radio be specifically excluded from a California statute prohibiting the use of “wireless communication devices” while driving. ARRL Southwestern Division Vice Director Marty Woll, N6VI, is taking point on the effort to revise the statute, known by its legislative bill number AB 1785. It was signed into law last September, and it took effect on January 1, amending §23123.5 of the state's Vehicle Code.

“ARRL has received a huge volume of inquiries and complaints about this statute in particular, since its enactment,” ARRL General Counsel Chris Imlay, W3KD, wrote in a letter to Woll to provide guidance in amending the California statute. “I would urge that you present this letter at any meetings you have with California State legislators on this topic, thus to bring the issues contained herein to their attention.”

Imlay pointed out that the prior statute excluded Amateur Radio by definition. The new law, which completely replaced the earlier statute, never mentions Amateur Radio, but instead contains an open-ended definition of an “electronic wireless communications device,” the operation of which while driving is prohibited. According to the statute, this “includes, but is not limited to, a broadband personal communication device, a specialized mobile radio device, a handheld device or laptop computer with mobile data access, a pager, or a two-way messaging device.”

“Because of the 'not limited to' language, such a device is whatever a law enforcement officer thinks might be included, and an Amateur Radio operator is not at all protected,” Imlay wrote. Such a broad definition could stymie “even the most diligent law enforcement officers,” who might interpret the new Vehicle Code language more broadly than intended.

“Radio amateurs have regularly used mobile two-way radio systems for the past 70 years,” Imlay said. “ARRL is aware of no evidence that such operation contributes to driver inattention,” he stressed. “Quite the contrary: Radio amateurs are public service-minded individuals who utilize their radio-equipped motor vehicles to assist others, and they are focused on driving in the execution of that function.”

Imlay also cited a 2009 letter to ARRL from the National Safety Council stating that there was no evidence using Amateur Radio while driving is a significant risk.

“Given the necessity of unrestricted mobile Amateur Radio communications in order for the benefits of Amateur Radio to the public to continue to be realized, ARRL urges California legislators to reconsider and amend AB 1785, to more narrowly define the class of devices included in the prohibition,” or to include a specific exemption for Amateur Radio, Imlay wrote.

International Crystal Manufacturing Going Out of Business

International Crystal Manufacturing (ICM) of Oklahoma City has announced that it will be going out of business, probably at the end of May. Royden Freeland Jr., son of the company's founder, posted a letter this week on the ICM website.

“We will be honoring all orders that we have already taken and will be able to fill a limited amount of new orders, dependent upon raw materials available,” Freeland said. “We would like to thank you for your past business. The success of ICM over the previous 66 years has been largely due to its amazing customer base.”

Royden R. Freeland Sr. founded International Crystal in 1950, at first operating out of his garage. One of his first contracts was to produce crystals for Collins Radio. The elder Freeland and his wife died in a 1978 air crash, and his son took over the company, which expanded into the production of other electronics in the 1980s.

In the 1990s, though, it sold off some of its equipment and distribution business to concentrate on its core enterprise -- the manufacture of crystal and oscillator products.

The announcement caught some manufacturers off guard, and they are seeking to source the products they had been buying from ICM, one of the remaining US-based manufacturers of crystal products. Radio amateurs requiring crystals for projects or as replacement parts for older equipment also will have to look elsewhere.

From *The ARRL Letter*, March 23, 2017

ARRL Reiterates its Case for New Band at 5 MHz

In comments filed on March 20 with the FCC on its own January Petition for Rule Making (RM-11785), ARRL reiterated its case for a contiguous secondary 15-kHz wide, 60-meter band of 5,351.5 to 5,366.5 kHz in addition to the four existing discrete 60-meter channels that fall outside the requested band, with a permitted power level of 100 W EIRP and retention of current operating rules. More than 5 dozen comments, all supporting the proposed allocation, were filed on the League's petition. While some suggested more spectrum or higher power, or a combination, ARRL said in its comments that it does not at this time favor any changes in its initial request for a new band. The League proposal would implement a portion of the Final Acts of World Radiocommunication Conference 2015 (WRC-15) that provided for a secondary international amateur allocation of 5,351.5 to 5,366.5 kHz at a maximum of 15 W EIRP.

“Each component of this proposal is intended to maximize spectral efficiency by permitting amateurs to operate throughout a band as conditions and availability warrant; to give primary service operations certainty as to where radio amateurs will be located within the broader fixed and mobile service band between 5.250-5.450 MHz; and it protects those primary users with the same successful interference avoidance techniques and protocols that have been used for the past 15 years domestically, with which radio amateurs have the technical training and experience to comply,” ARRL asserted in its comments.

The League said the WRC-15 power limit of 15 W EIRP “would render the band unsuitable for emergency communication, especially between the US mainland and the Caribbean Basin during summer storms and hurricane season, when atmospheric noise can be severe.

ARRL said there were good reasons for hewing to the proposal it initially crafted and filed with the FCC, most relating to the fact that the spectrum is shared with federal government users, and radio amateurs must avoid interfering with them. ARRL also pointed out that there is no "European Model" for 5 MHz, noting that the vast majority of European countries have held to the 15 kHz agreed to at WRC-15, and some even to the 15 W EIPR power limit. The National Telecommunications and Information Administration (NTIA), which regulates government spectrum, would have to sign off on any proposal, and, ARRL noted, it has twice expressed concern about a contiguous allocation at 5 MHz and did not favor the plan agreed to at WRC-15.

"While ARRL understands and agrees that there is a long-term, justifiable need for an allocation at 5 MHz that is larger than the 15 kHz made available at WRC-15, and there is a very practical need for power in excess of the 100 W PEP requested in ARRL's Petition, there are practical considerations inherent in the ARRL Petition that stem from an urgent and ongoing need to share the amateur allocation compatibly with other, primary users," ARRL said. "The Amateur Service must, of necessity, avoid interference to the primary users of this band (which it has, to date) in order to be permitted to operate there."

Citing its decades-long effort to obtain operating privileges in the vicinity of 5 MHz, ARRL said there's "not really much room for debate about the size of the band and the power limit domestically at the present time, given the allocation status of the band (domestically and internationally) and the necessary interference protection requirements for primary users."

"It is hoped that as regular amateur operation in this contiguous band develops, with the operating parameters recommended in ARRL's Petition," the ARRL comments continued, "such operation will continue to demonstrate compatible sharing with federal and other users and the operating parameters and the band can be re-examined and adjusted equitably at a later time."

ARRL said the most important thing is to have the FCC grant an allocation before offering initiatives to alter the plan it proposed in January. It urged the FCC to adopt the rule changes it proposed "at the earliest possible time, if at all possible in advance of the 2017 hurricane season."

SVECS Breakfast

The next SVECS quarterly breakfast will be on April 22, 2017. They are held at the Santa Clara Senior Center 1303 Fremont St. at the corner of Monroe. Breakfast starts at 0900 followed by program at 1000. Come and enjoy a tasty meal prepared by our Chief Chef, Glen K6GNG and helpers. Please RSVP to WA6QYS@AOL.COM.

Come see and hear about CAL FIRE 1629, a mobile command vehicle designed, built and operated by volunteer ham radio operators. Nick Arnett (KJ6FOI) and other participating hams will describe 1629's ham and government communications capabilities and their role in emergency responses. They will also describe the communications duties that they performed during the first few days of the Loma Fire in September, which included deploying a portable repeater to the summit of Loma Prieta during the fire.

Nick Arnett, KJ6FOI, a member of Santa Clara ARES/RACES, is a nationally registered EMT and former paramedic with experience in domestic and international disaster response in medical, communications, crisis intervention and chaplain roles. He has been a contract CAL FIRE employee during major incidents. He is a member of the California Fire

Chaplain Association, on the executive board of the California Peer Support Association and a member of the Contra Costa County Public Safety Support Association. He received a Volunteer of the Year award from the Santa Clara County Emergency Managers Association in 2012. His occupation for the last 20 years has been product management leadership in the software industry.

Come early and help with the breakfast effort. Need kitchen help as well as set up the eating area. Doors open at 0730.

Flea Market

A JOB WELL DONE

SCCARA had the questionable honor of hosting the first De Anza Electronics Flea Market on March 11, 2017. Everyone was watching the weather reports with trepidation. Some years the first flea market has been rained out with the host club losing money on the event. Luckily for us, the rains held off. This after record breaking precipitation ending our multi-year drought.

I would like to thank all the volunteers who gave of their time to make this fund raising event a success. The flea market crew consisted of: Paul KK6HWN, Goetz K6GKB, Rusty KI6ZSK, Svend KF6EMB, Gregg KF6FNA, Gary WB6YRU, Wally KA6YMD, Don K6PBQ, Praveen KK6VGB, Dona KI6DAR, Janet KF6PUQ, Don AE6PM, Lloyd KD6FJI, Joan KB6LFZ and Mike KB6LCJ. Any club's success can be measured by the dedication of its membership.

The next opportunity to help SCCARA will be manning a sales table at an upcoming flea market to sell surplus club property. Check with Gregg to see which month this will happen.

A heartfelt thanks to all.

Lou WA6QYS

Meeting Minutes

General Meeting, March 13, 2017



{None received. -- Editor}

Board Meeting, March 20, 2017



Meeting started at 7:37 PM

Attendance:

WA6QYS - Lou; KI6ZSK - James Rustermer; KE6KXO - Clark Murphy; K6GKB - Goetz Brandt; KF6FNA - Gregg Lane; KA6YMD - Wally Britten; K6PBQ - Don Village
Visitors: KK6HWN - Paul; KM6AQS - Truman

Announcements:

Wednesday, 03/22 is the last day for HRO Sunnyvale Club Station open on Saturday - 10:30 AM to 2:00 PM

Secretary's report:

Meeting Minutes approved as read.
Total 19 members paid as of today.

Treasurer's Report:

Checking: 7749.40
Savings: 500.07
Petty Cash: 127.82
Total: 8377.29

Trustee's Report:

Antenna Party - We need to plan for Antenna Party until the dry weather sets in.

President:

Speaker for next month is to be determined.
Need to see if the hospital Wifi is fast enough for streaming.

Wally :

Don AE6 PM is working on repairing the controller
Wally is taking care of the website.

Lou:

Net profit for Gate and Food at the Flea Market is \$1660.

Holiday Luncheon :

We need at least 25 people for Holiday Luncheon. Board committed to work harder this year to bring in more people.

Old Business:

24th & 25th of June - Field Day - We are forming a committee. At this point we have Gregg, Goetz & James Rustermier on the committee.

The Yahoo group needs to be cleaned up a bit. Ned is going to help setup more administrators.

New Business:

A lady offered Grundig Satellite 750 that has AM / FM to be given to someone who has use for it. Gregg requested Board members to suggest names. Key is that the receiver is going to use the radio, not sell it. Secretary to prepare a thank you note to be sent to the lady.

HRO is closing in 2 days. We need to buy a balun. We broke one. Is it better to buy a new one or get the broken one fixed. The off-center fed dipole is broken. Should we buy one. Suggestion is to hold off for now.

We did not sell our own stuff during our Flea market. We need to sell our stuff. We will plan for May Flea market.

Meeting closed at 8:30 PM

Praveen Akunuru, KK6VGB, Secretary

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 from the club secretary.

Topics:

Antennas, feed-lines, tuners: NV6W, W6JPP, K6PBQ
Lightning protection, grounding: WB6YRU
Station set-up, equipment: K6PBQ, W6JPP

TVI/RFI: WB6YRU

Homebrew projects, construction: WB6YRU

Packet Network (BBS, forwarding): WB6YRU

Code operating and installations: NV6W, K6PBQ

DX (long distance/propagation): NV6W

Emergency operating/preparedness: WA6QYS

HF operating techniques (SSB, CW): NV6W, K6PBQ

Legal/FCC rules: WB6YRU

SCCARA (club inner workings): K6PBQ, WB6YRU, WA6QYS

EchoLink: KK6MX

License testing, new amateurs: W6JPP

Contacts:

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

KK6MX, Don Apte, 408-629-0725

e-mail: kk6mx@aol.com

W6JPP, John Parks, 408-309-8709

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

It has been my hope to keep the club history alive by preserving the archives (what still exists) and make them easily available on our web site. Part of that is our newsletters. All the *SCCARA-GRAMs* we have are now available on our web site (http://www.qsl.net/sccara/newsletter_archives.htm).

As expected there are many interesting things, but this particularly caught my eye: In the March 1991 *SCCARA-GRAM*, pages 4-5 is an article by our then ARRL Pacific Division Director Charles McConnell W6DPD in which he talks about SCCARA's first president Harry Engwicht W6HC. He ends with this:

"... But over the years the Harry Engwicht Scholarship was forgotten and SCCARA seems to have forgotten its first President and perhaps most dedicated member. Maybe that's the fault of some of old timers who remember Harry's dedication but don't remember to tell the new members of our club history. Why are there no memorials dedicated to W6HC by the members of SCCARA? Why is there no SCCARA award given in his name? I hope we don't forget Harry, W6HC. He was Mr. Ham Radio in the Santa Clara Valley for nearly 50 years. Yes, SCCARA started in Harry Engwicht's barn."

Charles makes a good point. Of course there have been many noteworthy people, but Harry is the "George Washington" of SCCARA, our first president. A scholarship is way beyond our ability, but we should be able to come up with something.

73, Gary WB6YRU, editor



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



FIRST CLASS

ADDRESS SERVICE REQUESTED

SCCARA Membership Form for 2017

If renewing and none of your info has changed, we only need your name and call

Name: _____ Call: _____ Class: _____

Address: _____ Licensed since (yyyy): _____

City: _____ State: _____ Zip: _____ Licence Expiration
 Date: (mm/dd/yyyy): _____

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

E-mail: _____
only 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, which is \$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 \$30 per year

(Prorated, \$2.50 per month. That's \$27.50 if starting in February, \$25 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.