

SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 33, Number 11

November 2017



President's Prose

Our November speaker will be Don Anastasia, AA6W, who traveled to the ARRL Centennial Convention, held in Hartford, Connecticut on July 17-19, 2014. A Celebration and Overview of 100 years of ARRL Activity. Don will show his photos of W1AW headquarters and describe the W1AW HAM station that he operated.

73, Gregg KF6FNA, kf6fna@comcast.net



Dinner Meeting

SCCARA Holiday Dinner Meeting in December

Mark your calendars. Reserve the date. The Santa Clara County Amateur Radio Association will hold its Holiday Dinner at Harry's Hoffbrau on Monday, December 11th.

Harry's is located at 390 Saratoga Ave. just north of Highway 280 (between 280 and Steven Creek Blvd). We have the corner area reserved from 6:30 PM. As you enter the front door turn left down the first aisle of tables and booths and proceed to the next room. This is where we will have our Gala Holiday Feast.

Do come and join your fellow SCCARA members and by all means bring the entire family. Guests, ham or not, are cordially invited. The menu offers delicious meals large or small at reasonable prices. Their draft beers are endless in variety. Something for every taste, including sodas. Let us reminisce about our past activities and plan for future adventures.

Looking forward to seeing all SCCARA members on December 11th. Let Don Village, K6PBQ, know how many are coming in your party.

Lou WA6QYS

ARRL News

From *The ARRL Letter*, October 5, 2017

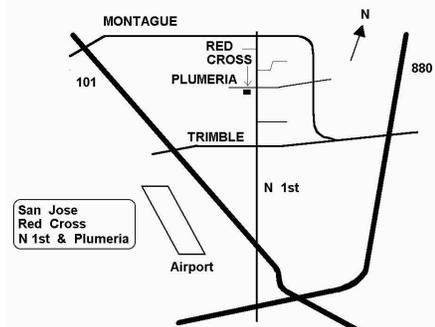
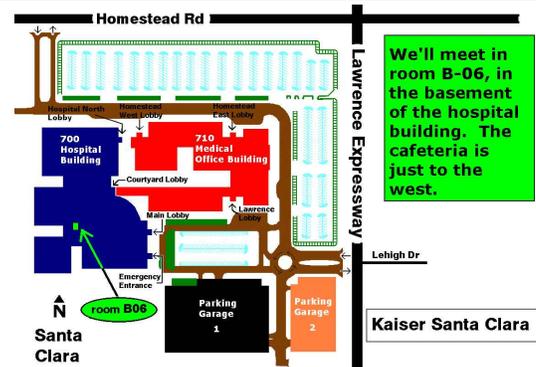
FCC Grants Temporary Waiver to Permit Higher Symbol Rate Data Transmissions

Calendar

- 11/13 SCCARA General Meeting -- club elections
- 11/20 SCCARA Board Meeting--(San Jose Red Cross, 7:30p, all are welcome)

General Meeting

- Day: Monday, November 13, 2017
- Time: 7:30 PM
- Place: Kaiser Santa Clara, Hospital B-06
- Featuring: Don Anastasia AA6W on the ARRL's 100th anniversary. And club elections



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 FCC has granted an ARRL request to waive current Amateur Radio rules to permit data transmissions at a higher symbol rate than currently permitted, in order to facilitate hurricane relief communications between the continental US and Puerto Rico. The temporary waiver is limited to Amateur Radio operators in Puerto Rico using PACTOR 3 and PACTOR 4 emissions, and to those radio amateurs in the continental US who are directly involved with HF hurricane relief communications involving Puerto Rico or the US Virgin Islands, the Commission said.

"We conclude that granting the requested waiver is in the public interest," the FCC said in its October 5 Order. "Hurricane Maria caused massive destruction in Puerto Rico, and communication services continue to be disrupted. Thus, to accommodate Amateur Radio operators assisting in the recovery efforts, we grant the ARRL's waiver request for the period of 60 days from the date of this Order."

ARRL explained in its waiver petition that it's shipping five PACTOR radio modems to Puerto Rico for use in connection with Hurricane Maria disaster relief communications. The League asked the FCC to temporarily allow PACTOR 3 and PACTOR 4 transmissions that exceed the current symbol rate limitations under § 97.307(f) of the Amateur Service rules.

Under the current rules, "specified digital codes" in Part 97 may be used with a symbol rate that does not exceed 300 baud for frequencies below 28 MHz, with the exception of 60 meters, and 1200 baud in the 10 meter band. The baud rate limits were adopted in 1980, when the FCC amended Part 97 to specify ASCII as a permissible digital code.

From *The ARRL Letter*, October 19, 2017

New Ham Bands Spring to Life; Veteran LF Experimenter Denied Access to 2200 Meters

Amateur Radio's two newest bands came to life on Friday the 13th. Both 630 meters (472-479 kHz) and 2200 meters (135.7-137.8 kHz) are now available to radio amateurs who have notified the Utilities Technology Council (UTC) of their intention to operate and did not hear anything back during the ensuing 30 days.

"Many of us filed notices with the Utilities Technology Council on September 15, the day the notification procedure was announced," said Fritz Raab, W1FR, who coordinated the ARRL WD2XSH 630-Meter Experiment. "We did not expect to hear from the UTC, unless they were objecting to amateur operation. Much to our surprise, on Friday, October 13, a number of operators received 'okay' notices. So, the first amateur operations commenced that night."

Denied!

UTC e-mails went out to an undetermined number of US radio amateurs who had notified the Council, but not everyone got the thumbs up. One of those thwarted in his hopes of operating under his Amateur Radio license on 2200 meters was John Andrews, W1TAG, of Holden, Massachusetts, a long-wave veteran with thousands of hours on the band over the past 13 years under his FCC Part 5 Experimental license. Andrews, an ARRL 630-Meter Experiment participant, said UTC denied his request because he was within 1 kilometer of a power line using PLC (power line carrier). Another who did not pass UTC muster for 2200 meters was Alabamian Dave Guthrie, KN4OK. UTC encouraged him to apply for permission to operate on 630 meters.

Awash with Signals

Raab said a few operators reported making contacts on 630 meters the first night, although noise levels were high, and a geomagnetic storm was in progress. Saturday night, October 14, "was a bust," he said. The next evening, however, things broke open. "The band was awash with CW and digital signals," Raab reported. "Operating modes included CW, JT9, SSB, and WSPR. Many operators were new to the band and not previously experimental licensees."

Tiny VLF Signal Makes the Hop from Newfoundland to the UK

For Joe Craig, VO1NA, in Torbay, Newfoundland, things have been pretty exciting lately on VLF (very low frequency). He's among the early MF, LF, and VLF experimenters in North America -- active even before Canada allocated Amateur Radio bands in that part of the spectrum. He believes he accomplished a "first" for a Canadian radio amateur on October 22, when his very VLF, very QRP signal on 8.27 kHz (that's the 36,000 meter band) was copied in the UK.



Getting on 2200 meters can be a bit more involved than getting on 630 meters.

This LF antenna tuning unit was constructed by John Andrews, W1TAG/WD2XES.



Now, this is a coil! The VLF loading coil at VO1NA.

On October 17, W7IUUV and VK4YB completed a JT9 contact, possibly the first US-to-DX Amateur Radio contact on 630 meters.

Andrews said he was an early applicant for a Part 5 license in 2003, after the FCC turned away from its own proposal, in response to an ARRL petition, to allocate a 2200-meter band. He estimates that he's racked up 11,000 hours of transmit time since 2004.

"I was never notified of any interference problem other than from a neighbor trying to run outdoor security cameras with CAT 3 network cable," he told ARRL. "While 2200 meters is a pretty tortured part of the radio spectrum for receiving over-the-air signals, there was nothing audible that suggested PLC use."

He plans to apply for 630-meter permission from Massachusetts. His notification for permission to operate on both bands from his summer home in Maine has not been denied.

The Rules

Section 97.313(g)(2) of the Amateur Service rules requires that, prior to starting operation on either band, radio amateurs must notify UTC that they intend to operate by submitting their call signs, intended band(s) of operation, and the coordinates of their antenna's fixed location. The new rules do not permit any mobile operation.

"Amateur stations will be permitted to commence operations after a 30-day period, unless UTC notifies the station that its fixed location is located within 1 kilometer of PLC systems operating on the same or overlapping frequencies," the FCC said in announcing approval of the notification system on September 15.

"After much effort on both sides of the pond, SWL Paul Nicholson in Todmorden finally copied a three-letter message," he told ARRL. "It's the lowest-frequency transatlantic message, made possible because of Paul's EbNaut coherent BPSK mode and DL4YHF's Spectrum Lab spectrum analyzer." Even more amazing: The power was 10 μ W ERP. Craig is permitted to run 10 mW by regulator ISED Canada (formerly Industry Canada). The transmission path was more than 3,500 kilometers (approximately 2,170 miles).

VLF signals have been copied across the Atlantic in the past. In March 2014, a very slow-speed (QRSS) CW signal on 29.499 kHz, transmitted by Bob Raide, W2ZM, a New York Experimental licensee, initially was detected in the UK by Nicholson. In June 2014, Dex McIntyre, W4DEX, in North Carolina, transmitted an EbNaut signal on 8.971 kHz, while running on the order of 150 μ W effective radiated power. Nicholson detected that signal too. McIntyre needed no FCC license to transmit on 8.971 kHz, because the Commission has not designated any allocations below 9 kHz, dubbed "the Dreamers' Band."

Craig's transmission from Newfoundland began at 2300 UTC on October 22 and ended 7 hours later. "Paul replied by e-mail the following day with the correct message," Craig said, "and there was much rejoicing across the pond and in the Marconi Radio Club of Newfoundland!"



VO1NA's "Tower A." His VLF antenna is attached to the second guy station at this point. [Joe Craig, VO1NA, photo]

From *The ARRL Letter*, October 26, 2017

Craig said that Nicholson had detected a carrier from VO1NA this past spring, but it was not stable enough to send a message.

DL4YHF's Spectrum Lab, with a GPS module output signal used to calibrate the computer and help from DF6NM and DK7FC, worked much better, Craig said. "Paul measured the phase for a few days before the message was sent. With the new high-stability carrier, Paul got me on the first call."

The final stage of his VLF transmitter is what Craig described as "the very Canadian Traynor Group One/SC stage amplifier" from the 1970s. He says his is "the only known VLF transmitter in Newfoundland and Labrador." His antenna, by the way, is approximately 100 meters (approximately 328 feet) of #12 copper wire, about 12 meters high on average.

Craig's blog (<http://www.ucs.mun.ca/~jcraig/vlf.html>) offers more information.

SSTV Goes Very High Profile

In late September, University of Alaska-Fairbanks researcher Chris Fallen, KL3WX, was attempting to produce an RF-induced airglow -- or artificial aurora -- using the High Frequency Active Auroral Research Program (HAARP) facility near Gakona, Alaska, to warm up the atmosphere. Clouds hampered his experiment, but Fallen alerted his Twitter followers that he also had embedded a few Slow-Scan Television (SSTV) frames in the powerful HAARP signal, which were copied in British Columbia and in Colorado.

"The SSTV images, aside from being a fun way to engage hams in some of the ionosphere-heating science performed at HAARP, will be useful for understanding radio propagation from Arctic or high-latitude sources," Fallen told ARRL.



HAARP consists of multiple transmitters feeding 180 phased-arrays and is capable of producing 3.6 MW (that's megawatts) of RF. HAARP's signal is essentially aimed straight up.



The assistant professor at the UAF's Geophysical Institute transmitted two UAF logos, a photo of his cat -- appearing as a giant feline next to the HAARP antenna field, and -- most unusual -- a QR code granting the recipient 0.001 Bitcoin. The SSTV images were

not the best, and you almost need to use your imagination to make out the cat.

His transmissions were on three discrete frequencies in the 2.8 MHz range. Fallen used different frequencies and antenna phase

settings to determine if those factors would affect the airglow.

"I used Scottie-1 encoding for the images, because it is widely used in North America and the ~120-second duration fit nicely into the airglow experiment," Fallen said. "The antenna was directed toward the HAARP magnetic zenith, which, at ~75° elevation, is nearly vertical but has often been found by previous scientists to maximize artificial airglow."

Fallen told ARRL he still has some HAARP time left from his September campaign, although he's not certain what he'll use it for. His next opportunity to experiment further won't be until early next spring. HAARP conducts just two experimental campaigns a year, due to staff and funding constraints.

Meeting Minutes

General Meeting, Oct. 9, 2017



{No minutes were received. -- Editor}

Board Meeting, Oct. 16, 2017



Red Cross Building 2731 N. 1st. St., San Jose, Ca.

Meeting called to order by President Gregg Lane at 19:43.

Attendance: President Gregg Lane KF6FNA; Treasurer Goetz Brandt K6GKB; Directors: Lou Steirer WA6QYS, Wally Britten KA6YMD, James Rustermier KI6ZSK, Don Village K6PBQ. Absences: Director Clark Murphy KE6KXO (excused), Secretary Praveen Akunuru KK6VGB.

Announcements: 1) Nov. 13, 2017 to be elections for 2018 Officers. 2) ARRL SWEEPSTEAKS in November.

Secretary's Report: Lou moved to accept the Sept. 2017 BOD minutes as published. Seconded by Don. Carried.

Treasurer's Report: checking = 6,981.67, savings = 500.07, cash = 314.82, TOTAL = \$7,796.56

President's Report: Don Anastasia AA6W to speak in Nov. on the ARRL CENTENIAL CELEBRATION.

Trustee's Report: CW SWEEPSTAKES Nov. 4, 2P.M. start, SSB SWEEPSTAKES Nov. 18, 1P.M. start. Club Station will be open.

Repeater Report: 4 batteries serviced.

Website Report: Nothing new.

Old Business: Still need a nominee for VP 2018.

New Business: Lou will check on availability of Harry's Hoffbrau on Dec. 11, 2017 at 6:30 P.M. for SCCARA's Holiday Dinner.

Meeting closed at 20:22.

Gregg Lane KF6FNA, recording

Packet Pieces

Downloaded from the BBS packet network:

=====
Date: 19 Oct 2015 02:57
From: GM3YEW@GB7YEW
To: HUMOUR@WW
Subject: Jokes 18/10

Bizarre Shark Facts

Sharks have been here for more than 400 million years - 200 million years before dinosaurs existed.

Shark skin is covered with small teeth-like denticles which can tear human skin on contact. It was once used as sandpaper by coastal wood-workers.

In a single year a shark goes through more than 20,000 knife-like teeth.

Unlike other fish sharks lack air bladders and consequently have to keep moving to avoid sinking and drowning.

To a shark a swimmer in a black wetsuit looks a lot like a seal or sea lion.

The Great White shark has no natural enemies (except humans) and it never gets sick.

Three times as many people are killed by lightning as are killed by sharks.

Sharks have three eyelids on each eye to protect against the thrashing of its prey.

Some types of sharks can smell one part of blood in 100 million parts of water.

Here is a math trick that might get you thinking...

1. Get a calculator, (you can't do this one in your head)
2. Enter the first three digits of your 7-digit phone number (NOT the area code)
3. Multiply by 80
4. Add 1, get the total
5. Multiply by 250
6. Add the last 4 digits of your phone number
7. Add the last 4 digits of your phone number again.
8. Subtract 250, get the total
9. Divide by 2

Do you recognize the answer? :)

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

SCCARA holds its elections in November. No information was submitted to the *SCCARA-GRAM*; however, rumor has it that so far we have the following nominees:

Pres. Gregg Lane KF6FNA
V.P. -
Treas. Goetz Brandt, K6GKB
Sec. Praveen Akunuru, KK6VGB (unconfirmed)

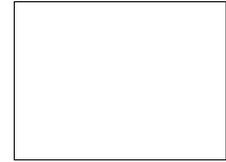
Dir. Wally Britten, KA6YMD
Dir. Lou Steirer, WA6QYS
Dir. -

We need at least one for each seat, but it's better if we have more than one. If you want start out easy, get your feet wet, try for director! You may nominate yourself before the elections are held. (Note: all officers are also directors automatically.)

73, Gary WB6YRU, editor



SCCARA
 Santa Clara County Amateur Radio Association
 PO Box 106
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FIRST CLASS

ADDRESS SERVICE REQUESTED

SCCARA Membership Form for 2018

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.