SCCARA-GRAM



Santa Clara County Amateur Radio Association

Volume 36, Number 7

July 2020



Meetings & Gatherings

As you've probably heard by now, the quarantine orders are slowly being relaxed. They were working, the coronavirus infection rates were leveling off. But the latest news is that it's begun to climb again and some restrictions may be coming back.

SCCARA's in-person meetings are canceled, except for the on-the-air board meetings using our 2 m repeater. SCCARA canceled its turn for the flea market and Field Day activity.

As of this writing, the electronic flea market web site indicates the July flea market has *not* been canceled. As I interpret the latest orders, activities like that are still out. Even if it were technically legal, the prudent thing to do is to avoid such gatherings. Yours truly won't be there.

Stay safe & 73, Gary WB6YRU, Editor

What's Good About Amateur Radio?

What Members Like About the Hobby

I first became interested in radio communications when I joined the US Army. It was an early fall morning on September 9, 1986 and I was shipped off to Basic Training at Fort Jackson, South Carolina. When my Basic Training and Advanced Individual Training was completed, I was assigned to the US Army Intelligence School Devens. This was the US Army Intelligence Headquarters at that time. Fort Devens, Mass. was a small base and I found myself surrounded by what was known as "Ditty Boppers", MOS 05H. Morse Code Analyst/Interceptor. I learned Morse Code (CW) and got \ assigned as a Radio Operator at Personnel Headquarters, USAG. I always thought of radio communications as a neat hobby to tinker around with, even though I never had my own radio until years later. I remember sitting in front of the Single Channel Ground and Airborne Radio System (SINCGARS) for the first time with a blank stare, not knowing what to do. The Commo Sergeant came over and gave me a short class with a few pointers. In no time at all, I was opening and closing NETS and receiving traffic throughout various frequencies. I even taught a few classes during field training exercises.

Calendar

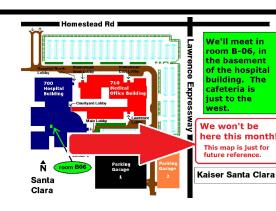
7/13 SCCARA General Meeting -- canceled
7/20 SCCARA Board Meeting-- held on our 2 m
repeater immediately following the Monday Night Net.

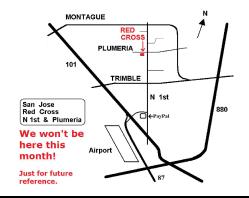
General Meeting

Day:
Time:
Place:
Featuring:

Monday, July 12, 2020

CANCELED





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.gsl.net/sccara

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

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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.

NØARY PACKET BBS

SCCARA hosts the packet BBS NØARY (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

Today, I am a Lieutenant Colonel in the US Army Reserves. I work as an IT Analyst with the Veterans Administration Palo-Alto Healthcare System. I was able to complete ICS 200, 300, 700, and 800 through FEMA training as a member of the DECON Team. As member of SCCARA, I am interested in continuing my knowledge and becoming more active in MARS, RACES, and participating in FEMA training activities. I enjoy HAM Radio because I enjoy helping people in need during times of emergencies and critical disasters. I want to dive deeper into the HF bands and reach out to touch someone anywhere in the world. So far, I have meant many new people through HAM Radio and look forward to making friends everywhere, all over the world!

73, Dr. Benjamin J. Shuford III, KK6CCU



Pacificon

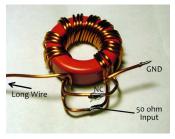
There will *NOT* be a physical Pacificon this year. They are looking into the possibility of having a virtual convention.

John Parks, W6JPP

What are these toroids?

Have you ever made a toroid choke?





Or how about a balun to match your antenna to $50 \Omega \cos x$?

Toroid cores are great for various kinds of transformers. One of the main advantages is immunity to external noise and it won't radiate. This is because the magnetic field is confined to within the torus itself. Magnetically speaking, there's no way in

or out, the core is a closed ring.

Like many of you, I've got a "junk box," what we affectionately call our collection of electronic parts and goodies. (By the way: During part of the 1960's, this newsletter was called "The Junk Box.") My junk box includes a hand-full of toroid cores. But I don't know exactly what they are! The manufacturers, in their INFINITE wisdom, don't label them.

Some are just plain unpainted dark gray:







painted





So, what's this one?



Yellow with a white end...?

The colors would be great -- except, unlike resistors,

there's apparently no rhyme or reason to them. They usually indicate the type of mix, but there's no standard, manufacturers each use their own definitions. Or if only they would print the mix on the core, that would be a big help.

An internet search didn't help much... One guy said his method for identifying a toroid was to throw it away and buy a known one. (The manufacturers must LOVE him.) Well, like many HAMs, I'm allergic to that!

You can try to look it up based on the core's dimensions and color(s). Unfortunately, that's not a sure thing. It could be from another manufacture and just happens to look the same, but has different properties.

OK, so what have we got...

The core's dimensions are easy to get especially with calipers. There's OD, ID and H, (outer diameter, inner diameter, and height or thickness). It would really help if the permeability μ_i were known. At least the μ_i will give you a good idea of what its performance will be.

If you look at physics web sites, they refer to radius and cross sections... it can get very complicated. Fortunately I found a helpful web site with these equations. They're simplified approximations, but close enough:

$$\begin{split} L &= 0.0002 \; \mu_i \; H \; N^2 \; In \left(\frac{OD}{ID} \right) \qquad \text{for OD / ID} > 1.75 \\ L &= 0.0004 \; \mu_i \; H \; N^2 \; \left(\frac{OD - ID}{OD + ID} \right) \qquad \text{for OD / ID} < 1.75 \end{split}$$

L is the inductance in micro Henrys (µH) N is the number of turns of wire Size measurements are in mm

(For the mathematically challenged, "ln" is nature log. Just use the "ln" key on your calculator. If it doesn't have one, oh well.)

By rearranging the equations a little, we can find the permeability μ_i easily enough:

$$\mu_i = \frac{L}{0.0002 \text{ H N}^2 \ln \left(\frac{\text{OD}}{\text{ID}}\right)} \quad \text{for OD / ID > 1.75}$$

$$\mu_i = \frac{L}{0.0004 \text{ H N}^2 \left(\frac{OD - ID}{OD + ID}\right)} \quad \text{for OD / ID < 1.75}$$

So, with a coil of, say, 10 turns (N = 10), measure its inductance L, then you can calculate μ_i . For some cores, fewer turns may not give enough inductance to accurately measure. Of course you need a meter that measures inductance – it's always good to have the right tools for the job.

I used a known core as a test: Amidon's T-184-26. Amidon has a standard for their model numbers: FT is ferrite, T is iron powder, the first number is the OD in 100th of an inch, and the last number is their mix type. Amidon's mix 26 has a permeability of 75.

That toroid is yellow with a white end, OD = 47.1 mm, ID = 24.1, and H = 17.7 mm. The inductance of 10 turns is 17.2 μH. That gives a permeability of 72.5.

Converting 47.1 mm to 100th of an inch is 185.4. That's

within 1% of 184. \checkmark Their mix 26 has a μ_i of 75. I calculated 72.5. Again, close enough (under 4%). \checkmark

Just visually, it's hard to know if it's iron powder or ferrite, (both are based on iron, just other stuff mixed in). But the iron powder cores tend to have a lower permeability. So...

So, great, I could have looked that up and gotten the specifications -- assuming it was from Amidon.

Testing like this can be a bit tedious, but with the pandemic stay-at-home orders in effect, this seems like a good

time to find out what these toroids are.

Besides, I'm in the mood to do little antenna experimenting and I'll need to make a matching transformer. The ARRL Antenna Book has some good info on that. And it turns out I already have some toroids that should work fine! So it was a satisfying and worth while effort.

By the way, if you have a toroid that would work except its μ_i is lower than you wanted, don't let that put you off. Notice from the equations: The inductance goes as the SQUARE of the number of turns, and is only LINEAR with the permeability. That means a core of twice the μ_i gives you twice the inductance. But twice the number of turns gives you FOUR times the inductance. So a few extra turns might be all you need to do.

One other thing: Remember, each time the wire goes through the center of a toroid, it counts as a "turn." So, in the photos above, the choke has a single winding of 33 turns, and the balun is made of a trifilar winding (three coils) of 9 turns.

73, Gary

ARRL News

From The ARRL Letter, May 28, 2020

Temporary Rule Waivers Announced for 2020 **ARRL Field Day**

With one month to go before 2020 ARRL Field Day, June 27 - 28, the ARRL Programs and Services Committee (PSC) has adopted two temporary rule waivers for the event:

1) For Field Day 2020 only, Class D stations may work all other Field Day stations, including other Class D stations, for points.

Field Day rule 4.6 (http://www.arrl.org/field-day-rules#classd) defines Class D stations as "Home stations," including stations operating from permanent or licensed station locations using commercial power. Class D stations ordinarily may only count contacts made with Class A, B, C, E, and F Field Day stations, but the temporary rule waiver for 2020 allows Class D stations to count contacts with other Class D stations for QSO credit.

2) In addition, for 2020 only, an aggregate club score will be published, which will be the sum of all individual entries indicating a specific club (similar to the aggregate score totals used in ARRL affiliated club competitions).

Ordinarily, club names are only published in the results for Class A and Class F entries, but the temporary rule waiver for ARRI 2020 allows participants from any Class (http://www.arrl.org/field-day-rules#class) to optionally include a single club name with their submitted results following Field



For example, if Podunk Hollow Radio Club members Becky, W1BXY, and Hiram, W1AW, both participate in 2020 Field Day -- Hiram from his Class D home station, and Becky from her Class C mobile station -- both can include the radio club's name when reporting their individual results. The published results listing will include individual scores for Hiram and Becky, plus a combined score for all entries identified as Podunk Hollow Radio Club.

The temporary rule waivers were adopted by the PSC on May 27, 2020.

ARRL Field Day is one of the biggest events on the amateur radio calendar, with over 36,000 participants in 2019, including entries from 3,113 radio clubs and emergency operations centers. In most years, Field Day is also the largest annual demonstration of ham radio, because many radio clubs organize their participation in public places such as parks and schools.

Due to the COVID-19 pandemic, many radio clubs have made decisions to cancel their group participation in ARRL Field Day this year due to public health recommendations and/or requirements, or to significantly modify their participation for safe social distancing practices. The temporary rule waivers allow greater flexibility in recognizing the value of individual and club participation regardless of entry class.

ARRL is contacting logging program developers about the temporary rule waivers so developers can release updated versions of their software prior to Field Day weekend.

Participants are reminded that the preferred method of submitting entries after Field Day is (https://field-day.arrl.org/fdentry.php) via the web applet. The Field Day rules include instructions for submitting entries (http://www.arrl.org/field-day-rules#reporting) after the event. Entries must be submitted or postmarked by Tuesday, July 28, 2020.

The ARRL Field Day web page (http://www.arrl.org/fieldday) includes a series of articles with ideas and advice for adapting participation this year.

Another New Beta Version of WSJT-X is Available

A new beta ("release candidate"), WSJT-X version 2.2.0-rc2, is now available for downloading from the WSJT-X website, (https://physics.princeton.edu/pulsar/K1JT/wsjtx.html) along with a list of new features. The WSJT-X development team has also published additional FT8 "overflow" frequencies, as the WSJT-X 2.2.0-rc2 Release Notes explain.

(https://physics.princeton.edu/pulsar/K1JT/Release_Notes.txt)

"Increasing FT8 usage on 40, 30, and 20 meters means that the default 3 kHz subbands are often wall-to-wall with signals. Overcrowding encourages some to turn on their amplifiers, which only makes things worse. On a trial basis, and in response to numerous suggestions from around the world, we have added a second set of suggested dial frequencies for FT8 on three HF bands and also on 6 meters...7.071, 10.133, 14.071, and 50.310 MHz.

"These frequencies will appear in your dropdown band-selector list after you go to the 'Settings | Frequencies' tab, right-click on the frequency table, and select 'Reset.' Alternatively, you can add the new FT8 frequencies manually. When the conventional FT8 subband on 6, 20, 30, or 40 meters seems too full, please try moving your dial frequency down 3 kHz! [A]s currently implemented, WSJT-X will set your dial to the lowest frequency [A]s currently for the selected mode and band, when you switch bands."

The latest "general availability" (GA) release is WSJT-X 2.1.2.

From The ARRL Letter, June 4, 2020

WSJT-X Version 2.2.0 is Now in General Release

WSJT-X version 2.2.0 is now in general availability release, after a short period in beta (or release candidate) status. WSJT-X version 2.2 offers 10 different protocols or modes -- FT4, FT8, JT4, JT9, JT65, QRA64, ISCAT, MSK144, WSPR, and Echo. The first six are designed for reliable contacts under weak-signal conditions, and they use nearly identical message structure and source encoding. JT65 and QRA64 were designed for EME ("moonbounce") on VHF/UHF bands, but have also proven very effective for worldwide very low-power communication on HF

"FT8 is operationally similar but four times faster (15-second T/R [transmit-receive] sequences) and less sensitive by a few decibels,' developer Joe Taylor, K1JT, explains in the version 2.2.0 User Guide. "FT4 is faster still (7.5-second T/R sequences) and especially well suited for contesting." (https://physics.princeton.edu/pulsar/K1JT/wsjtx-doc/wsjtx-mai

n-2.2.0 en.html#NEW FEATURES)

Taylor noted that even with their shorter transmit-receive sequences, FT4 and FT8 are considered "slow modes," because their message frames are sent only once per transmission. "All fast modes in WSJT-X send their message frames repeatedly, as many times as will fit into the [transmit] sequence length," he explained.

Compared with FT8, FT4 is 3.5 dB less sensitive and requires 1.6 times the bandwidth, but it offers the potential for twice the contact

New in WSJT-X version 2.2.0: FT8 decoding is now spread over three intervals, the first starting at 11.8 seconds into a receive sequence and typically yielding around 85% of the possible decodes. This means users see most decodes much sooner than with previous versions. A second processing step starts at 13.5 seconds, and a third at 14.7 seconds.

"Overall decoding yield on crowded bands is improved by 10% or more," Taylor said.

Other changes: Signal-to-noise (SNR) estimates no longer saturate at +20 dB, and large signals in the passband no longer cause the SNR of weaker signals to be biased low. Times written to the ALL.TXT cumulative journal file are now correct, even when decoding occurs after the T/R sequence boundary.

From The ARRL Letter, June 11, 2020

UK Special Events to Recognize Historic Marconi Factory Radio Broadcast

Two special events in June will mark the centennial of the first entertainment radio broadcast. England's Chelmsford Amateur Radio Society (CARS) will operate special event GB100MZX on June 13 - 20, and Wales' Dragon Amateur Radio Club will operate special event GB0MZX on June 12 - 21. Both will commemorate the 100th anniversary of the live radio recital by well-known Australian soprano Dame Nellie Melba, on June 15, 1920. These special events open the door to some interesting radio history.

MZX was the call sign at Marconi's second Chelmsford radio factory on New Street, built in 1912. A CARS history recounts that after 1913, all G- and M-prefix call signs were allocated to the UK, with the M prefix being associated with Marconi. The Marconi factory received a general experimental license in late

1919 with the MZX call sign.

MZX was the call sign at Marconi's factory on New Street in Chelmsford.



According CARS, in order to test transmitters manufactured in the new plant, it became common practice to power them into an antenna and invite people to read "railway timetables or similar mundane material" over the air.

Listeners who wrote Marconi suggested that he air more enlightening material, so some locals were informally invited into the factory to tell stories or even sing from a makeshift studio. Two 750-foot towers at the factory supported wire antennas for MZX, which by the time of the historic broadcast was running a 15 kW transmitter.



Dame Nellie Melba. [BBC archive]

Sensing a potential profit, The Daily Mail newspaper paid Dame Nellie Melba to travel to Chelmsford by train, where she was picked up in a chauffeur-driven car and taken the long way around Chelmsford on a route advertised beforehand to waving crowds before arriving at the studio in New Street, just a few hundred meters away.

The CARS account continues, "Her historic performance was very well received, although she realized that possibly future (paid) public performances may suffer if she was often 'on the radio,' [and] she never made a radio broadcast again.

"The Postmaster-General was not amused by such trivial use and withdrew the license in November 1920 on 'interference grounds,' in particular with Croydon airfield. The public clamor for reinstatement was substantial, and due to pressure from the Wireless Society of London and the House of Commons, the Post Office eventually relented."

The Wireless Society of London eventually became the Radio Society of Great Britain (RSGB), the International Amateur Radio Union member-society.

Additional history of Marconi's manufacturing and broadcasting in the UK appears on the CARS website. http://www.g0mwt.org.uk/new-street/index.htm

The IARU has developed a paper addressing increasing noise from digital devices.

International Amateur Radio Union (IARU, http://www.iaru.org/) electromagnetic compatibility (EMC) specialists Tore Worren, LA9QL, and Martin Sach, G8KDF, submitted the paper to the International Special Committee on Radio Interference (CISPR) concerning the increasing impact of multiple digital devices on noise levels in the radio spectrum. The paper was considered at the CISPR Steering Committee in late May, and it was adopted for circulation to the CISPR National Committee for comment as a

Committee Draft, with a view toward its becoming a CISPR Report. "IARU hopes that the result of this will be amendments to the way in which standards are developed to recognize the need to properly consider the cumulative impact of multiple devices," said IARU Region 1 President Don Beattie, G3BJ, in an IARU news brief. -- Thanks to IARU Region 1

From The ARRL Letter, June 17, 2020

Last Active Morse Code Station KPH

In a video, "The Last Active Morse Code Station in the US," Shannon Morse, KM6FPP, of Richmond, California, visits coast station KPH, which provided ship-to-shore communication using Morse code. Maritime Radio Historical Society (MRHS, http://www.radiomarine.org/) volunteers have preserved and maintain the station and keep it on the air (along with the associated amateur station K6KPH). The COVID-19 pandemic has put KPH off the air "for the duration."

From The ARRL Letter, June 25, 2020

Balloon Launched by Popular Web Show Host Completes Third Round Trip

A balloon (https://tmedlin.com/balloon-3-2/) launched on May 20 by "Amateur Radio Roundtable" web show host Tom Medlin, W5KUB, and his team has begun its third circumnavigation of Earth. The balloon, at 43,000 - 45,000 feet, completed its second trip around the globe on June 19. It crossed the Atlantic Ocean "in record time" at a speed of about 170 MPH, the balloon website reported this week.

Identified as W5KUB-18, the balloon carries APRS and WSPR amateur radio payloads. By the morning of June 25, it was above China, moving at more than 100 MPH.

According to the balloon website, the mission and goal are to launch a high-altitude balloon for long-duration and multiple trips around the world. The balloon, an SBS-13, is capable of flying up to 45,000 feet. "It will be filled with hydrogen to obtain higher altitude," the website explains. "It will be solar powered only (no batteries, so it will only transmit during daylight). We will receive tracking every 10 minutes via WSPR on HF [14.0971 MHz]." Tracking transmissions will be turned off over the UK, Yemen, and North Korea due to regulations. The tracking transmitter runs just 10 mW, but it's being heard as far away as 9,000 miles, Medlin told ARRL.

"The entire tracker with GPS and processor is only 2 grams," Medlin said. "That's about the weight of a penny. The entire payload is only 15 grams total." The current effort is the group's ninth attempt to circumnavigate the globe.



The YO3ICT tracker transmitter onboard the balloon: "I had to build it under a microscope," Medlin said. [Tom Medlin, W5KUB, photo]

Medlin says the balloon project has broadened his horizons. "You have to do a lot of specific engineering and

measurements down to the 0.1 gram to fly one," he told ARRL. "You also become a weatherman, watching all the NOAA websites, winds at different altitudes, storms, etc. Storms will bring you down," Medlin said. With the float altitude set at 44,000

feet, he expects to be able to fly above most storms. "You also become very well-versed in geography as it flies," he added.

Medlin's livestreamed (http://www.w5kub.com/) "Amateur Radio Roundtable" goes live on Tuesdays at 9 PM Eastern Time and accepts calls from viewers. He has operated a live cam at Dayton Hamvention® for several years.

Pacificon Canceled

Pacificon 2020 (http://pacificon.org/) has been canceled. Held each October, the event is sponsored by the Mount Diablo Amateur Radio Club and hosts the ARRL Pacific Division Convention. "The Pacificon Committee has been hard at work planning Pacificon 2020 each and every day, but COVID-19 really has made the event untenable," Pacificon Treasurer Jim Siemons, W6LK, said. "We are looking at options to provide some content for the amateur radio community via web or virtual seminars."

Meeting Minutes

General Meeting, June 8 2020



{No General Meeting was held due to the coronavirus}

Board Meeting, June 15, 2020



Held on-the-air using our 2 m repeater.

Meeting called to order by President Gregg Lane KF6FNA at 7:38 PM

Attendance:

President Gregg Lane KF6FNA; VP Ned Tufekcic AC6YY; 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.

Excused absence: Secretary Barbara Britten KD6QEI Visitors: Editor Gary Mitchell WB6YRU, Ben KK6CCU.

Visitors: Editor Gary Mitchell WB6YRU, Ben KK6CCU, Paul KK6HWN

The May 2020 board meeting minutes were published in the SCCARA-GRAM. One correction made (John W6JPP was listed as KB6JPP). Approve by acclimation as corrected.

President's Report, Gregg KF6FNA: Field Day is June 27 and 28, but it won't be a normal event due to the covid-19 virus.

Vice President's Report, Ned AC6YY: Nothing to report.

Treasurer's Report, Goetz K6GKB: checking = \$ 11096.37 cash = \$ 196.04 Total = \$ 11292.41

Trustee's Report, Don K6PBQ: The club station at the San Jose Red Cross continues to be closed because of the covid-19 virus pandemic.

Standing Committees:

Repeater chairman's report, Wally KA6YMD: EchoLink wasn't working. The power to the computer was out. It's been fixed. Goezt K6GKB: The 2 m repeater has been running on wind power alone for a week now.

Webmaster's report, Wally KA6YMD: Nothing special to report, currently looking into any problems there may be on the web site.

Editor's report: Gary WB6YRU: John W6JPP reported possibly having a line on a donated laser printer. Nothing new heard on that.

John W6JPP: The company who may donate it is currently going through a review process.

BBS Sysop's report: Gary WB6YRU: Nothing new to report, the BBS is running normally.

Old Business:

Gregg KF6FNA: SCCARA canceled its Field Day activity this year. Originally it was to be held at the club station at the Red Cross. George N6NKT (our Red Cross contact) said there will be no operation from the San Jose Red Cross until further notice due to the pandemic. Members should plan on participating in Field Day from their home stations.

Gregg KF6FNA: Our antennas were removed for roof work at the San Jose Red Cross. It's still a work in progress.

Gregg KF6FNA: Our antenna trailer now has a new tarp covering it.

John W6JPP: There was an antenna party at the American Legion Post (where our antenna trailer is stored). Thanks to all who helped.

Gregg KF6FNA: SCCARA's club listing on the ARRL web site needs updating. No action has happened on that.

New Business:

Gregg KF6FNA: SCCARA will be 100 years old Feb. 2021. We should have a special QSL card. Maybe use the antenna trailer and have a special event station.

John W6JPP: We can do that at the American Legion Post, and we can have a BBQ too.

Gary WB6YRU: Will we at least have a dinner meeting instead of a regular general meeting?

Gregg KF6FNA and Don K6PBQ: We need to see how the covid-19 pandemic works out before making any solid plans.

Truman N6TRU: At the BBQ we could also show our film from 1925. I'm interested in working on adding music to it, and could use some help on choosing which music.

John W6JPP: No problem showing the film at the American Legion Post.

Gary WB6YRU: will help with the video.

Don K6PBQ: Regarding a special 100th anniversary QSL card, I will look through my QSL cards for ideas.

Rusty KI6ZSK: looking on ebay etc. is a good source for old cards.

Truman N6TRU and Gregg KF6FNA: Shall we have a committee work on the QSL card?

Gary WB6YRU: We already formed a committee over a year ago. Truman N6TRU, Don K6PBQ, and myself are on it, but no one has said anything.

Gregg KF6FNA: Let's get going on that. Reactivated the committee: Gary WB6YRU, Truman N6TRU, Rusty KI6ZSK, John W6JPP, and Don K6PBQ volunteered.

John W6JPP: Pacificon could be canceled this year because of the pandemic. The ARRL is looking into the possibility of having a virtual Pacificon.

Meeting adjourned 8:30 PM

Gary Mitchell, WB6YRU, recording for the Secretary

Field Day

Some of us participated in Field Day at home. Here are the results reported from a couple of you.

Ned AC6YY:

| Band | Mode | QSOs | Points | multiplier (CW vs SSB) |
|------|------------------------|------|---------------|------------------------|
| 3.5 | CW | 17 | 34 | 2.0 |
| 7 | CW | 197 | 394 | 2.0 |
| 7 | LSB | 1 | 1 | 1.0 |
| 14 | CW | 99 | 198 | 2.0 |
| 14 | USB | 6 | 6 | 1.0 |
| 21 | $\mathbf{C}\mathbf{W}$ | 1 | 2 | 2.0 |

Total QSOs: 321 Points: 635 Score: 1,270

Kelly WB6AAJ:

Class: 1B

Power: 5 watts (QRP)

| Band | Mode | QSOs |
|------|------------------------|------|
| 80 | CW | 5 |
| 40 | CW | 37 |
| 20 | $\mathbf{C}\mathbf{W}$ | 13 |

Total QSOs: 55

Points: 110 (55, multiplier of 2 for CW) Score: 550 (110, multiplier of 5 for QRP)

Bonus points: 100 (RV battery) Total Sections worked: 22

Packet Pieces

Downloaded from the BBS packet network:

To: HUMOR@USA Subject: Different Views

"I thought I told you to keep an eye on your cousin," the mother said. "Where is he?"

"Well," her son replied thoughtfully, "if he knows as much about canoeing as he thinks he does, he's out canoeing. If he knows as little as I think he does, he's out swimming."

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

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

WA6OYS, Lou Steirer, 408-241-7999

e-mail: wa6qys@arrl.net

WB6YRU, Gary Mitchell, 408-269-2924

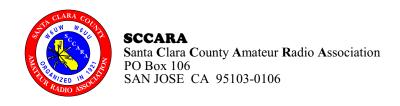
packet: home BBS N0ARY e-mail: wb6yru@ix.netcom.com

Newsletter Notes

I was fooling around with some toroid cores with the idea of making one into a matching transformer for an antenna. But they're almost never labeled--what exactly are they? Some are painted with various colors, but there's no standard for toroids. The project to find out seemed like a good thing to share, so it became an article.

So... Anyone else? With the pandemic stay-at-home orders, surely some of you have been keeping busy with projects of an amateur radio nature. Please tell us about them!

73, Gary WB6YRU, editor



FIRST CLASS

Rev. 11/25/2019

ADDRESS SERVICE REQUESTED

SCCARA Membership Form for 2020 If renewing and none of your info has changed, we only need your name and call

| | Z , | , | , , | | |
|--|---|--------------------|--------------------------------------|------------------------------------|--|
| Name: | | Call: | | Class: | |
| Address: | | | | Licensed since (year): | |
| City: | State: | Zip+4: | | | |
| Telephone: | New | Member | Renewal | I'm also an ARRL member | |
| E-mail: | | | | | |
| only for club commun | ications and the SCCARA-GRAM | I newsletter (pdf) | | | |
| Membership type and dues: | Individual, \$20 | Fami | ily, \$25 | Student, \$10 (under 18) | |
| Memberships start January 1 and expiramily memberships (more than one | ire December 31. member per household): 1 | lease include | the above info for | or each member, use separate forms | |
| New members: Dues are prorated: dues x (11 If joining in November or Decem | - month) x 10% For external dues for next | ample: July v | would be \$20 x (of this year is inc | (11-7) x 0.1 = \$8) luded free. | |
| I want the paper newslette (Prorated, \$1.25 per mor | er delivered by U.S. Ma nth. That's \$13.75 if startin | | | | |
| \$ Total enclosed | | | | | |

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