



CLUB STATION
K6SON

Short Skip

The Newsletter of

Sonoma County Radio Amateurs, Inc.

P.O. Box 116, Santa Rosa, CA 95402-0116 707-538-2931

<http://www.sonomacountyradioamateurs.com>

Repeaters:

English Hill: 147.315+ 88.5 / 441.375 +88.5



REPEATER STATION
W6SON

Volume 45, Number 8

August 2020

SCRA is Open for License Testing

When the FCC changed its testing system to using volunteers in the field, it had no idea that an event such as COVID-19 would completely disrupt the process.

Yet, Sonoma County Radio Amateur volunteers stepped up to make its first socially-distanced testing session a success.

Brian Torr, N6IYY, inspired by a drive-up session implemented by the Warren County (NY) Radio Club, developed techniques for candidates to stay in their cars, but still be observed by Volunteer Examiners (VEs) and to have the tests marked and verified by the required three VEs.



Checking in for VE Testing

Brian created a “virtual classroom” in the parking lot of the Sonoma County Office of Emergency Services. Seven parking places were marked off with an empty space between each. That empty space is where a test proctor was assigned to monitor the adjacent two candidates.

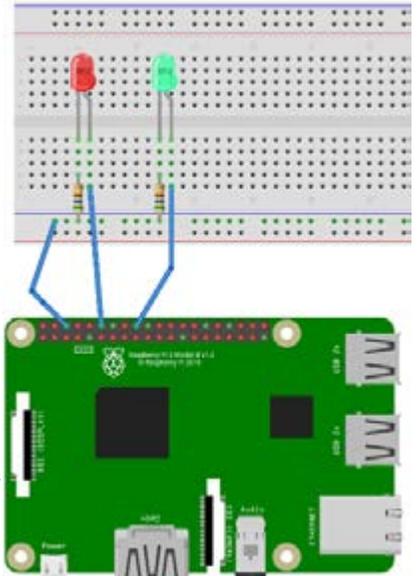
[Continued on page 19...](#)

The Growing Radio Amateurs Class Continues

In May, 2020, we started classes online to explore Basic Electronics and the Raspberry Pi. About 14-20 members have attended the classes, held once or twice a month on Zoom. The class sessions started with

1 - Beginning Raspberry Pi – the Basics

We explored what is a Raspberry Pi and how to set it up including loading the software and accessing it through your computer. We saw a nice application, HamClock, and how to back up your Raspberry Pi.



We continued with.. [Continued on page 18...](#)

FEATURED ARTICLES:

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GROWING RADIO AMATEURS CLASS... BY BILL AA6BD	PAGE 1
FIELD DAY RECAP AND SOAP BOX BY BRIAN N6IYY	PAGE 13
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FIRE POWER BY PAT KG6JSL	PAGE 21



PRESIDENT'S MESSAGE AUGUST, 2020

Greetings! COVID-19 can't keep active club members down. This issue is chock-full of articles describing member activities transacted through online meetings or in person while maintaining social distancing and wearing face coverings. Where there's a will, there's a way. Thank you everyone for your engagement.



Be sure to attend the online Membership Meeting on Wednesday August 5th at 7:00pm. The attending membership will elect a Director to fill the vacancy on the Board of Directors. Nominations are open until they are closed during the meeting. And if that doesn't key your radio, attend to experience not one but two topics: "Fire Power" by Pat KG6JSL, "Field Day 2020: Not your ordinary Field Day!" by Brian N6IYY. I'm pretty sure the first topic does not include weapons. And as always, you are also invited to attend the Board of Directors Meeting on Wednesday August 12th at 6:00pm.

Brian N6IYY and his team of VEs conducted their second parking-lot exam session on August 1st. Seven of Eight examinees (not to be confused with [Seven of Nine](#) from Star Trek) earned their first tickets and/or upgraded. Mike AD6YB has penned within an informative article about the inaugural session.

Bill AA6BD continues to teach electronics with Raspberry Pi in his Growing Radio Amateurs class. See his article within for a taste of the scope and fun that are involved. John WB6FRZ pounds brass teaching CW as a Second Language online to enthusiastic club members and runs a code-practice net on the SCRA 2M repeater Friday evenings.

The repeater committee members are pursuing or fine-tuning various modes including DMR, System Fusion, and WinLink. See the article within by Bill AA6BD regarding advances in DMR and Fusion.

According to the ARRL, Field Day 2020 had massive participation. COVID-19 can't keep good hams down. Brian N6IYY provides two follow-up articles related to participation by SCRA members.

Andrew KE6HID alerts us to ARRL proposed band plan changes.

We members of SCRA continue to run weekly nets such as the Tuesday 7:00pm 2M SCRA Service Net and thanks to Joe K6AWA the 10M net that follows at 8:00pm on 28.403MHz, and also a DMR net promoted by Andrew KE6HID. Turn-out on the nets is excellent. All are welcome.

On the Public Service front, we lost our last scheduled event for the year due to COVID-19 concerns. The MS Waves-to-Wine bicycling event in September 2020 has been canceled. That leaves us running on empty for the remainder of 2020 unless we find a fill-up.

[Live Long and Prosper](#),

- Fred AE6SF

SCRA Membership Meeting (Online only)

Wed, Aug. 5, 2020 7:00 PM - 8:30 PM (PDT) (Social at 6:45 PM)
Please join the meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/207365757>

You may also dial in using your telephone.

(For supported devices, tap a one-touch number below to join instantly.) United States: +1 (646) 749-3122 Access Code: 207-365-757

One-touch: <tel:+16467493122,,207365757#>

New to GoToMeeting? Get the app now and be ready when your first meeting starts.

<https://global.gotomeeting.com/install/207365757>

AUGUST PROGRAM

"Fire Power" by Pat KG6JSL

"Field Day 2020: Not your ordinary Field Day!" by Brian N6IYY

JOIN ARRL, THE AMERICAN RADIO RELAY LEAGUE

The ARRL is the national organization of Amateur Radio. It represents Amateur Radio at International Conferences and before the FCC. Get the monthly QST magazine, insurance for your equipment and too many other benefits to mention here. Click <http://www.arrl.org/membership/>



If you are not getting the ARRL San Francisco Section news by e-mail and you are an ARRL member, be sure to subscribe under your Members Only information or go to this Web site:

<http://www.arrl.org/Groups/view/san-francisco>

2020 Club Officers

President	Fred Seitel	AE6SF
Vice President	Johnathan Brown	AK6VB
Secretary	Bill Dornbush	AA6BD
Treasurer	Iola Beckley	KK6HRE
Director	Warren Pierce	K6WRP
	Open	
Past President	John Felton	KE5RI

Committee Lineup/Contacts

Activities	Iola Beckley activities@sonomacountyradioamateurs.com
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1st Quarter Column	\$13 per month
Each Additional Quarter Column	\$4 per month
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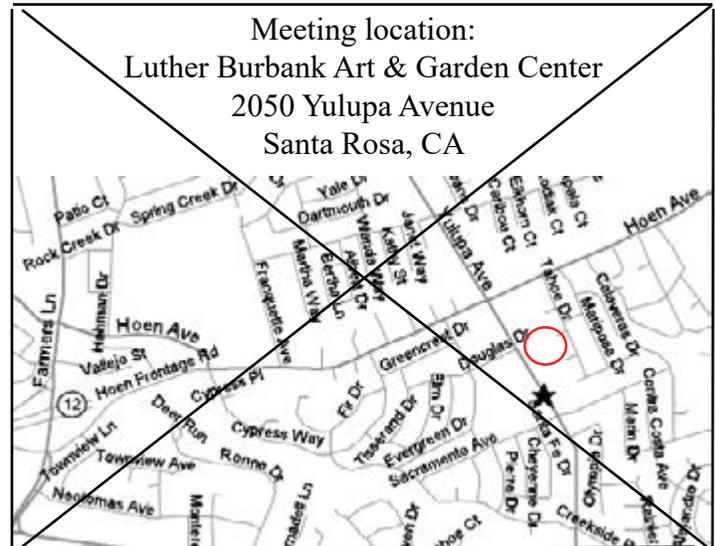
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SCRA Club Meetings

Online this month, [see page 2](#).

The club normally meets the first Wednesday of each month, socially at 6:30 pm, program starting at 7:00 pm. Exceptions are holidays or other big events.



Meeting location:

Luther Burbank Art & Garden Center
2050 Yulupa Avenue
Santa Rosa, CA

All are welcome!

Please join us at our next meeting. Anyone interested in Amateur Radio is eligible for membership. A membership application is included in this newsletter. For more information, contact any SCRA officer, director or member. **Hungry before the meeting? Join us for dinner! We Meet at [Round Table Pizza, 2424 Magowan Dr, Santa Rosa](#). People start showing up at 5:15 PM. No RSVP is required.**

Online this month.

Board of Directors Meeting

The SCRA Board of Directors will meet monthly on the Second Wednesday online. **Round Table Pizza, 2424 Magowan Dr, Santa Rosa**. All members are welcome to attend, no reservations necessary. **Arrive around 5:00pm for dinner**. Meeting starts at 6:00pm.

LOANER RADIOS AVAILABLE

The Club has a variety of radios available to members to try out and improve their skills. We have a Kenwood T590 SG HF radio; Yeasu FT 2900 2 meter mobile; Yeasu FT1D, an analog/digital 2 meter and 440mhz HT; Yeasu FT 60, a 2 meter and 440 mhz HT; and a TYT TH-F5 VHF 2 meter HT. Trying these out is an excellent way to learn some radio and test before you buy. Contact Joe, K6AWA, at k6awa@yahoo.com with your request. Joe will forward an information form to you by return email.

UPGRADE TO GENERAL OR AMATEUR EXTRA CLASS

Get more privileges and enjoyment from your Ham Radio Hobby. Mentoring assistance is available. Contact the SCRA Education Chair, at education@sonomacountyradioamateurs.com.

Tuesday Night Net

The Sonoma County Radio Amateurs' net meets Tuesday at 7:00 PM on the SCRA repeater, 147.315, positive offset, PL 88.5.

All members and guests are invited to check in. The Net includes updates on SCRA activities, and News-line, the amateur radio community news service.

Anyone wishing to work as net control should contact lola kk6hre, at K6SON@ARRL.NET for assignment. Script and logs are available on the Website at <http://sonomacountyradioamateurs.com/wp/resources/net-script/>



The Weekly 160 Meter Net

Announcing the new 160 meter net which runs from 8:45pm to 9:30pm Tuesday nights, immediately following the 10 meter net hosted by Joe K6AWA. Tune your radio frequency to 1.900 Mhz. LSB. 160 meters requires a General or above license to transmit.

Your Tuesday Night Net Line-up

2 Meter Net (Membership Net) on the SCRA repeater, 147.315, positive offset, PL 88.5

10 Meter Net - starts at 8:00pm (new time) following the regular SCRA net Tuesday nights and ends at 8:45pm. Set your dial to 28.403 MHz USB. Please note that all license classes (including technician) are welcome.

160 Meter Net - runs from 8:45pm to 9:30pm. Tune your radio frequency to 1.910 MHz LSB. 160 meters requires a General or above license to transmit.

Digital Mobile Radio Sonoma County Talk Group 31707

The club's DMR footprint continues to expand! We established a beachhead on DMR and the BrandMeister network of repeaters and hotspots by adding a talk group for Sonoma County. We are using talk group number 31707 to keep in touch on DMR and be able to discuss local news and topics of interest. The use of a talk group like 31707 allows a wider variety of Sonoma County DMR hams to be able to consistently reach each other on the air. Best of all, the 31707 talk group can be reached on hotspots as well as repeaters, meaning you can tie into your local community wherever you are!

Sonoma County DMR Net happens on Thursdays at 6:30 PM PT.

We also started a DMR net for Sonoma County (using talk group 31707) that lets us practice a little bit of traffic handling, while also allowing us to get together and talk about ways we can integrate DMR into our normal operating habits. If you have a DMR radio, make sure to program it to include talk group 31707 on any of the area DMR repeaters (there are at least four in Sonoma County) and join us on Thursday evenings!



2020 SCHEDULE OF EVENTS

Check the [Club website](#) for details

Many events have been canceled as shown in strikethrough text.

Aug 15-16	Mini DX, with NA QSO Party
Aug 22-23	International Lighthouse Weekend
Aug 29	Tour de Fox
Sep 12-13	Waves to Wine
Sep 18-20	Technician Class
Sep 26	VE Testing
Oct 3	Levi's GranFondo Rescheduled 2021
Oct 17	Jamboree on the Air
Oct 17	Pacifcon STEM presentation
Oct 26	North Bay Science Discovery Day
Nov 6-8	Technician Class
Nov 14	VE Testing
Dec 2	Holiday Party

The Uncertain Future of Ham Radio

Contributed by Iola KK6HRE

Software-defined radio and cheap hardware are shaking up a hobby long associated with engineering

Will the amateur airwaves fall silent? Since the dawn of radio, amateur operators—hams—have transmitted on tenaciously guarded slices of spectrum. Electronic engineering has benefited tremendously from their activity, from the level of the individual engineer to the entire field. But the rise of the Internet in the 1990s, with its ability to easily connect billions of people, captured the attention of many potential hams. *Read the full story [here](#).*

Reporter Wanted for Contest Corner

Frank NQ6E has retired from Contest Corner. Short Ship is looking for a reporter to replace him in this capacity.

Qualifications for this position are mainly an interest in contesting. If you have experience in contesting that is a plus, but not completely necessary. As a reporter you could expand your current knowledge by contacting other operators and documenting their experiences. There is a lot of information available online as well. Interested persons should contact Dave KI6UGB at shortskipeditor@gmail.com.

CONTEST CORNER

Welcome to Contest Corner for August 2020.

It appears that our single remaining scheduled event for August, International Lighthouse Weekend, is STILL ON! (But not as a club-organized outing.)

This from the [ARRL website](#):

International Lighthouse Lightship Weekend on Track for 2020

07/15/2020

Registrations for this year's popular International Lighthouse Lightship Weekend ([ILLW](#)) appear to have been largely unaffected by the current COVID-19 pandemic. The event will take place this year over the August 22 – 23 weekend. By mid-July, more than 200 entries had been received, and some 400 are expected to have signed up by the event weekend.

New to this year's event is Corsica at Phare d'Alistro, which for ILLW purposes carries the French number of FR0030. Two lighthouses in Ghana will be on the air for the first time, as well as Buck Island Lighthouse in the US Virgin Islands (VI0001). Germany is well in the lead with 54 entries, followed by Australia with 29 entries, and the US with 27 entries.

This event is designed as a fun weekend to encourage exposure to amateur radio and lighthouses to the visiting public, and ILLW stresses contacts should be more than just an exchange of signal reports. All participants are urged to observe local COVID-19 safety guidelines. —Thanks to Kevin Mulcahey, VK2CE

[ILLW's Facebook page](#) emphasizes being safe and the option to participate from your home station.

Do not forget to check out <http://www.contestcalendar.com>

Contact shortskipeditor@gmail.com for questions/comments/suggestions regarding Contest Corner or to become a reporter.

72/73,

Dave KI6UGB





Bruce Draper, AA5B, aa5b.corral@gmail.com

Contest Corral

August 2020

Check for updates and a downloadable PDF version online at www.arrl.org/contest-calendar. Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

	Start - Finish Date-Time	Finish Date-Time	Bands	Contest Name	Mode	Exchange	Sponsor's Website	
1	0001	2	2359	28	10-10 International Summer Contest, SSB	Ph	Name, mbr or "0," SPC	www.ten-ten.org
1	1200	1	2359	1.8-28	European HF Championship	CW Ph	RS(T), 2-digit year first licensed	lea.hamradio.si/~scc/euhf
1	1400	1	1800	144	WAB 144 MHz Low Power Phone	Ph	RS, serial, WAB square or country	wab.interip.net
1	1800	2	0559	1.8-28	North American QSO Party, CW	CW	Name, state/DC/province/country	www.ncjweb.com
1	1800	2	1800	222 and up	ARRL 222 MHz and Up Distance Contest	CW Ph Dig	6-char grid square	www.arrl.org/222-mhz-and-up-distance-contest
2	1400	2	1700	3.5-14	SARL HF Phone Contest	Ph	RS, serial	www.sarl.org.za
4	0100	4	0159	1.8-50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, or youth)	wvsac.com/rules.html
4	0100	4	0300	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
5	1700	5	2000	144	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
6	1700	6	2100	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrau.net/activity-contests
6	1900	6	2100	1.8-50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or power	www.skccgroup.com
8	0000	9	2359	3.5-28	WAE DX Contest, CW	CW	RST, serial	www.darc.de/der-club/referate/referat-conteste/worked-all-europe-dx-contest/en
8	0800	8	1100	1.8-28	QRP ARCI European Sprint	CW	RST, SPC, mbr or power	qrparci.org
8	1200	9	2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
8	1400	9	0400	1.8-144, 432	Maryland-DC QSO Party	CW Ph Dig	Entry class, county or SPC	w3vpr.org/mdcqsop
10	0000	10	0200	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
10	1200	10	1400	7	SARL Youth Sprint	Ph	RS, age	www.sarl.org.za
11	1500	13	1459	144	MMMonVHF 144 MHz Meteorscatter Sprint Contest	CW Ph Dig	Signal report	mmonvhf.de/ctestinfo.php
12	0030	12	0230	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info/sprint
12	1700	12	2000	432	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	ft8activity.eu/index.php/en
15	0000	16	1600	3.5-28	SARTG WW RTTY Contest	Dig	RST, serial	www.sartg.com
15	0600	16	2359	10 GHz to light	ARRL 10 GHz and Up Contest	CW Ph Dig	6-char Maidenhead locator	www.arrl.org/10-ghz-up
15	0800	16	0800	1.8-28	Russian District Award Contest	CW Ph	RS(T), RU district code or serial	rdaward.org/rdac1.htm
15	1200	16	1200	1.8-50	Keyman's Club of Japan Contest	CW	RST, JA prefecture/district code or continent	kcj-cw.com
15	1600	15	1759	1.8-50	Feld Hell Sprint	Dig	RST, mbr, SPC, 4-char grid	sites.google.com/site/feldhellclub
15	1800	16	0559	1.8-28	North American QSO Party, SSB	Ph	Name, state/DC/province/country	www.ncjweb.com
15	2100	16	2100	3.5-28	CVA DX Contest, CW	CW	RST, category	cvadx.org/regulamento
16	1400	16	1700	3.5-14	SARL HF Digital Contest	Dig	RST, serial	www.sarl.org.za
16	1700	16	2100	3.5-28	NJQRP Skeeter Hunt	CW Ph	RS(T), SPC, Skeeter number or power	www.qsl.net/w2lj
16	1800	16	2359	3.5-28	ARRL Rookie Roundup, RTTY	Dig	Name, 2-digit year first licensed, state/province/XE area/DX	www.arrl.org/rookie-roundup
16	1900	16	2359	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrptest.com/pigrun
22	0400	24	0400	1.8-28	Hawaii QSO Party	CW Ph Dig	RS(T) + HI district or SPC	www.hawaiiqsoparty.org
22	1600	23	0400	3.5-28	Ohio QSO Party	CW Ph	RS(T), county or SPC	www.ohqp.org/index.php/rules
22	2100	23	2100	3.5-28	CVA DX Contest, SSB	Ph	RS, category	cvadx.org/regulamento
22	2300	23	0300	50	50 MHz Fall Sprint	CW Ph Dig	4-char grid square	svhfs.org
26	0000	26	0200	1.8-28	SKCC Sprint	CW	RST, SPC, name, mbr or power	www.skccgroup.com
29	0600	30	0559	3.5-28	ALARA Contest	CW Ph	RS(T), name	alara.org.au/contests
29	1200	30	0300	1.8-50	W/VE Islands QSO Party	CW Ph Dig	RS(T), USI/CISA island designation or SPC	usislands.org/qso-party-rules
29	1200	30	1159	3.5-28	SCC RTTY Championship	Dig	RST, 4-digit year first licensed	lea.hamradio.si/scc/rtty
29	1200	30	1200	3.5-28	YO DX HF Contest	CW Ph	RS(T), YO county or serial	www.yodx.ro
29	1200	30	1200	1.8-28	World Wide Digi DX Contest	Dig	4-char grid square	ww-digi.com
29	1400	29	2200	3.5-28	Kentucky State Parks on the Air	CW Ph Dig	KY park abbreviation or SPC	k4msu.com/kypota
29	1400	30	2000	3.5-50	Kansas QSO Party	CW Ph Dig	RS(T), county or SPC	ksqsoparty.org/rules/KSQPRules2019.pdf
30	1400	30	1700	3.5-14	SARL HF CW Contest	CW	RST, serial	www.sarl.org.za
31	1300	31	1400	1.8-28	QCX Challenge	CW	RST, name, SPC, rig	www.qrp-labs.com/party.html
31	1900	31	2000	1.8-28	QCX Challenge	CW	RST, name, SPC, rig	www.qrp-labs.com/party.html

There are a number of weekly contests not included in the table above. For more info, visit: www.qrpfoxhunt.org, www.nccsprint.com, and www.cwops.org. All dates refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or NCJ. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. Data for Contest Corral is maintained on the WA7BNM Contest Calendar at www.contestcalendar.com and is extracted for publication in QST 2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WA7BNM, in providing this service.



SCRA Merchandise QST

The limited edition SCRA 80th Anniversary Lapel Pins are available at \$5 each. These stylish 1.25" lapel pins feature our full color 80th Anniversary logo with an epoxy dome finish and a military/butterfly clutch back to secure the pin in place.

They not only look good on a lapel, but they'll give your hats, sweaters, jackets and tote bags that SCRA touch.



The SCRA/Halls webstore is on-the-air! Just tune your internet device to the website hosted by Halls Executive Gifts and Awards (AKA Frederick Engraving) at <http://scra.hallsapparel.com>.

This time, when you order a shirt, in the style, color and size of your choice, it will be available for pickup within a couple of weeks. And now you also have the option to either pick it up from Halls yourself or pick it up at a future membership meeting.

Most members have found that the shirt sizes fit as expected, but if you tend to run in between sizes, we recommend the larger size.



Please email any questions and comments to merchandise@sonomacountyradioamateurs.com.

SCRA Membership QST

The SCRA membership stands at 248.



Welcome new and returning members:

- Bob Dozor K3FUL (G) Sebastopol
- Candace Morales Associate Sebastopol
- Jeanette Barclay Associate Windsor
- Pat Abercrombie KN6JRZ (T) Healdsburg
- Richard Dunlap KK6AXS (T) Santa Rosa
- Rituja Bhowmik KN6JRV (T) Santa Rosa



New call signs: - none reported



License Class Upgrades:

- Darryl Paule KI6MSP - Amateur Extra
- Jeff Neuman KD5OIU - General

If you have recently achieved a new license class, obtained a new call sign, or changed your address, email or phone, please email membership@sonomacountyradioamateurs.com with your update. And don't forget to report your address change to the FCC!

Membership Count by License Class	
License Class	Count
Advanced	2
Amateur Extra	70
General	63
Technician	101

We have **12** Associate members.
164 SCRA members are ARRL members.



KUDOS

Hammy: Our statue for ham of the month.

John Felton KE5RI is helping Howard K6SID and Les Goldner KN6HZS and gets the Hammy.

Brian N6IYY awarded kudos to Fred AE6SF for logging for Field Day.

Darryl KI6MSP gave kudos to Brian N6IYY for his testing session, and Field Day.

Mark W6GOL gave kudos to Joe K6AWA for his set up of the club Zero Five antenna in his pasture for Field Day.

Kathy KM6URP gave kudos to Darryl KI6MSP and John WB6FRZ who helped with her STEM program, and to John WB6FRZ and Bill AA6BD for classes.

Barbara K6BES gave a kudo to Bill AA6BD as she is no longer afraid of her Raspberry Pi after attending class sessions.

On the Air Magazine

(<http://www.arrl.org/read-on-the-air>)

On the Air magazine is the newest ARRL member benefit to help new licensees and beginner-to-intermediate radio communicators navigate the world of amateur radio. Delivered six times a year, the magazine will present articles, how-to's, and tips for selecting equipment, building projects, getting involved in emergency communication as well as spotlighting the experiences of people using radio to serve their communities, and those using it for enjoyment.

Whether you just passed your Technician exam or have been licensed for years but never got around to making contacts or starting a project, On the Air can help you take your interest in radio to the next level with clear, useful information.

SCRA HAM OF THE MONTH RECIPIENTS			
Year	Month	Name	Call Sign
2020	July	John	KE5RI
2020	June	Darryl	KI6MSP
2020	May	Charlie	KZ6T
2020	April	David	N5PSM
2020	March	Bill	AA6BD
2020	Feb	—	—
2020	Jan	Cornell	W6HMN
2019	Dec	—	—
2019	November	Doug	KF6LMB
2019	Aug/Sep/Oct	Scott	KJ6QIQ
2019	June/July	Carol	KK6OLL
2019	May	Randy	AA6RH
2019	Apr	John	WB6FRZ
2019	Mar	Erin	K6ERI
2019	Feb	Fred	AE6SF
2019	Jan	Dave	KI6UGB
2018	Dec	—	—
2018	Nov	Iola	KK6HRE
2018	Oct	Dan	KK6VIQ



SCRA Code Class

(●●● -●●● ●●● ● - -●●● - - -●●● ● - -●●● ●●● ●●● ●●●)

By John Breckenridge, WB6FRZ



Radio's rugged ranks in the Thirties
 Enlisted chaps like old G5BD
 Who never sat around wringing his hands
 About contributions and countries lists
 Or griped about slow factory service
 On a chrome-trimmed Superduper-IV.
 OM G5BD, with only one good arm
 Couldn't wring his hands anyway
 And had bigger problems to lick
 Like no a.c. mains and a 10-watt limit.
 Other things he had a-plenty
 Were guts and that old ham spirit
 So G5BD worked DX—and had a ball.
 (Photo via W2GP)

Do you hold a Technician class license and want to use skywave on 80, 40, and 15 meters? You DO have privileges on those bands! Do you hold a General class license and want to take advantage of the lower frequency portions of your HF bands? Want to try making some HF code contacts hiking in the mountains?

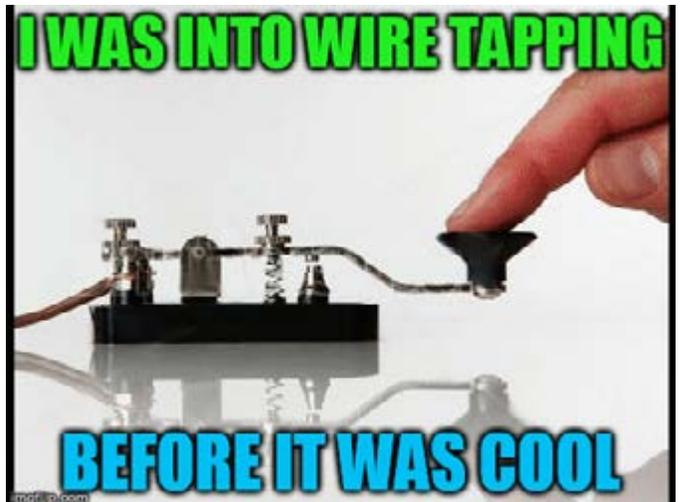
wb6frz@arrl.net
 707-217-1017

The class is currently closed to new students.

The class meets from 6:30 until 8PM on Mondays from June 1st through September 28th.

You will learn to send and receive code and how to make radio contacts using code. There will be homework but you knew that was the case anyway, didn't you? It doesn't matter, we have a lot of fun in class and we might even have a code practice net over the repeater during the week!

Contact John Breckenridge, WB6FRZ, for more information:



Sonoma County Radio Amateurs Membership Meeting Minutes for July 1, 2020

Call to order and review agenda: The meeting was called to order at 7 pm and was held via GoToMeeting conference.

The president, Fred Seitel AE6SF, and Secretary, Bill AA6BD, determined that a quorum is present. There were 43 members on the online session.

Board members present: Fred Seitel AE6SF, Johnathan Brown AK6VB, Bill Dornbush AA6BD, Warren Pierce K6WRP, John Felton KE5RI.

Absent: Iola Beckley KK6HRE, Randy Hall AA6RH

New members: none

Guests: Bob Dozor KN6JRY

Fred noted that we have lost silent key Aaron Marroquin KK6ZDB. Remembrances were offered.

NET CONTROL: The following members are the net control stations for:

July 7 – Fred AE6SF
July 14 – Mark W6GOL
July 21 – Darryl KI6MSP
July 28 – Brian N6IYY
Aug 4 – Dan KK6VIQ

Announcements Upgrades Lies and Brags: Darryl KI6MSP upgraded to Amateur Extra.

Hammy and Kudos: John Felton KE5RI is helping Howard K6SID and Les Goldner KN6HZS and gets the Hammy. Brian N6IYY awarded kudos to Fred AE6SF for logging for Field Day. Darryl KI6MSP gave kudos to Brian N6IYY for his testing session, and Field Day. Mark W6GOL gave kudos to Joe K6AWA for his set up of the club Zero Five antenna in his pasture for Field Day. Kathy KM6URP gave kudos to Darryl KI6MSP and John WB6FRZ who helped with her STEM program, and to John WB6FRZ and Bill AA6BD for classes. Barbara K6BES gave a kudo to Bill AA6BD as she is no longer afraid of her Raspberry Pi after attending class sessions.

Fred AE6SF noted that Randy AA6RH is taking a sabbatical due to so much on his plate and is resigning from the board of directors and chairing committees. John KE5RI thanked Randy AA6RH for what he has done in the last year.

Approval of minutes: Darryl KI6MSP moved approval of membership meeting minutes as published in Short Skip, Kenn N4NTJ seconded, and the motion was approved by voice vote.

REPORTS

Treasurer report: Iola was not present.

Growing Radio Amateurs: Bill AA6BD noted classes are continuing, with one last night, one tomorrow, and one in 2 weeks.

Education: John WB6FRZ noted that the code class is proceeding, with some hams checking in to the Friday practice net at 7 pm. Registration is closed for the rest of the class.

Field Day: Brian N6IYY noted he is looking to get .adi files for those who logged their contacts. We are up to 1628 QSO points so far, and John WB6FRZ and Leland W6GEE contributed the most contacts, all on CW. Most participants were 1D or 1E with two 1B and one mobile.

Merchandise: Dan KK6VIQ ordered badges and picked them up. He will deliver them shortly.

Membership: Dan KK6VIQ noted we have 242 members. Jason McLaughlin was the latest to join.

VE testing: Brian N6IYY thanked our VEs who helped June 13 at the drive-up session. 13 candidates all passed. The license processing is going slowly. Brian has uploaded scanned documents to facilitate the processing. Candidates will need an FRN, which they get from the FCC, ahead of time for future sessions. Brian is looking to Saturday, Aug 1, for the next session.

Public Service: Fred AE6SF noted that Levi's GranFondo is postponed to May 29, 2021, and moved to Windsor. Waves to Wine is still planned for late September. Darryl KI6MSP noted that the Science Festival is moved to May, 2021.

Refreshments: Fred AE6SF noted that it is BYO refreshments.

Program: Yaesu System Fusion – Bill AA6BD. The presentation will be posted to the club website.

OLD BUSINESS none

NEW BUSINESS none

John KE5RI moved that we adjourn the meeting. Darryl KI6MSP seconded the motion. The meeting was adjourned at 8:25 PM by voice vote.

Respectfully Submitted,
Bill Dornbush AA6BD

SCRA BOARD OF DIRECTORS MEETING MINUTES

Date: July 8, 2020

The meeting was called to order by Fred Seitel AE6SF at 6 pm. A quorum was present.

Board members present: Fred Seitel AE6SF, Iola Beckley KK6HRE, Bill Dornbush AA6BD, Warren Pierce K6WRP, Johnathan Brown AK6VB, John Felton KE5RI

Absent: none

Others: Darryl Paule KI6MSP, Charlie Sikes KZ6T, Brian Torr N6IYY, Pat Coyle KG6JSL, John Breckenridge WB6FRZ, Erin Casteel K6ERI, Philip Humes KF6GNH, Dan Drummond KK6VIQ

Approval of previous meeting minutes: Fred AE6SF moved that the minutes as published in Short Skip be approved, Iola KK6HRE seconded, and the motion carried by voice vote.

OFFICER AND DIRECTOR REPORTS

Treasurer report: Iola KK6HRE reported about our finances.

Secretary report – Bill AA6BD noted that a new club membership roster has been released as of June 27.

COMMITTEE REPORTS

Activities – Iola KK6HRE – no report

Community Outreach – Darryl KI6MSP – no report

Growing Radio Amateurs – Bill AA6BD – The last meeting on June 30 and July 2 had 14 attendees, and the next session on Raspberry Pi sensors will be 7/15.

Education & Mentoring – Fred AE6SF – sent information about online courses to some interested people.

Emergency Service – Pat KG6JSL – How to do emergency power could be important with looming PSPS, and he will provide an August short skip article.

Field Day – Brian N6IYY has received 22 logs, and is working to determine rewards.

Volunteer Examiners – Brian N6IYY – is getting requests for exam sessions, and got approval for Emergency Management parking lot on Aug 1. He is also possibly scheduling a session for late September.

Membership – Dan KK6VIQ – we have 244 members, including 30 new members, which is 5 ahead of last year's pace. Bob KN6JRY joined and is a returning ham and is requesting his old call sign K3FUL.

Merchandise – Dan KK6VIQ – wants to mail out badges and it is within his budget. There were no objections.

Newsletter – Dave KI6UGB – not present

Website – Dave KI6UGB – not present

Programs – vacant –

Public Service – vacant – Waves to Wine is still scheduled as the only remaining 2020 event.

Radio Loanout program – Joe K6AWA – not present

Refreshments – Fred AE6SF

Repeater – Erin K6ERI – needs to finalize a change to repeater committee membership

OLD BUSINESS

1. Establish disposal plan for surplus radio loaner equipment and return proceeds there from into the loaner program. - Joe K6AWA was not present – it was suggested that we publish the list one time in Short Skip to see if it might reduce the inquiries to Joe. Fred AE6SF will discuss this with Joe and report back to the board.

2. COVID-19 - reentry planning - Charlie KZ6T - Fred AE6SF suggested we look at how we would restart meetings.

Continued on page 12...

BoD Minutes continued from page 11...

NEW BUSINESS

1. Director vacancy – Fred AE6SF – Randy AA6RH has resigned as a board director as well as his committee participation. Johnathan AK6VB quoted from the Bylaws “The members of the SCRA may elect a Director at any time to fill any vacancies.” There is no provision for the president appointing a director, but only an officer. Fred AE6SF suggested we advertise to members that we have a vacancy and ask for nominations. At our next membership meeting, we can elect a new director using vote by chat, or by voice if they cannot chat. Philip KF6GNH wants to be nominated.

Fred AE6SF moved that nominations for director be opened immediately and advertised on the weekly blog and on the weekly net, and elected at the August membership meeting in 3 weeks. Iola KK6HRE seconded the motion. The motion carried by voice vote.

2. Field Day Awards – Brian N6IIY – Before field day, he ordered 8 pins and noted 7 possible awards:
 Most Contacts on 2m FM
 Most Phone Contacts (any band)
 Most Digital Contacts
 Most CW Contacts
 Iron Pants (aka “Butt-in-Chair”) (most time operating)
 Most QSOs Per Hour, Sprint
 Most QSOs Per Hour, Marathon
 He would like to give out pins and certificates at the holiday party. Iola KK6HRE has certificates and will print them per Brian’s direction.

3. LBA&GC reopening – Iola KK6HRE – The response from LBA&GC is that they are not reopening yet, and would only open with restrictions. LBA&GC does not plan to reimburse us for monies paid to date and suggests we could donate to keep them in better financial shape as they need repairs. Iola suggested she and Dan KK6VIQ could survey the LBA&GC and see how many members could be allowed in to the space. Charlie KZ6T suggested we need a plan to look at the overall planning for reentry, not just the meeting space. Fred AE6SF suggested a committee for LBA&GC with Iola and Dan and Charlie, and a different committee to look at larger issues, and suggested Fred, Charlie, and

Bill AA6BD.

4. August program? Was Boat Anchor/Homebrew/Auction Night – We discussed possibly Pat KG6JSL doing a program on emergency power. Fred AE6SF will ask Pat if he can do this. Brian N6IIY said he can recap Field Day as well. Dan KK6VIQ suggested a discussion of web sites and apps useful for fire season. Darryl KI6MSP can do a presentation on ACS. Fred AE6SF will contact Pat about his willingness to do a program and then formulate what the program would be which may include some of the above.

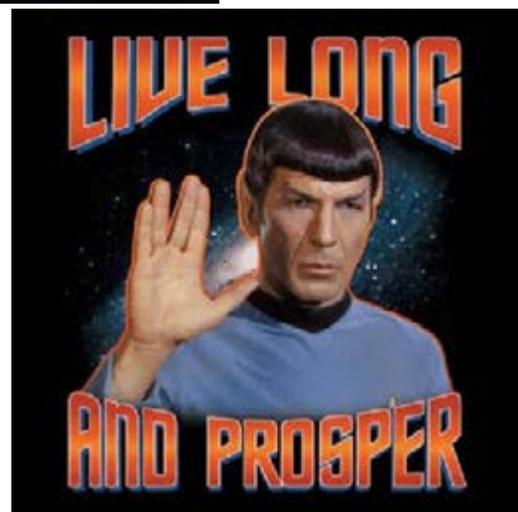
Iola KK6HRE moved that we adjourn, Bill AA6BD seconded, and the motion was approved by voice vote. The meeting ended at 7:35 pm.

Respectfully Submitted,
 Bill Dornbush AA6BD

PRESIDENTS MESSAGE STAR TREK REFERENCES



“Seven of Nine” from *Star Trek Voyager*. Formerly of the [Borg Collective](#). **Note:** (unverified) The Borg Collective is not known to the FCC to use frequencies reserved for Amateur Radio in the operation of Borg implants.





Field Day 2020 Recap

In the Field Day article I wrote for the May issue of Short Skip I said that COVID-19 had dealt us lemons, so it was time to make lemonade.

I think we made a pretty good batch!

I have received logs from 23 SCRA members. The results show a wide range of operating modes. Some only worked 2m FM, some only worked CW, some only worked digital modes, some only worked phone. Several operated two modes. Here are the totals by mode and number of operators using that mode:

Mode	QSOs	# of Operators
CW	593	5
Phone (includes 2m FM)	462	18
Digital	181	8
2m FM	126	14

Our total number of QSO points was 2,010.

Almost all ARRL sections in the US were contacted. The sections we missed were CT, DE, ENY (Eastern New York), PR (Puerto Rico), VI (Virgin Islands), and WV. Only the four western-most Canadian sections were worked.

We also had a good mixture of operating classes:

- 1B: 3
- 1C: 1
- 1D: 9
- 1E: 10

We decided to give out seven awards:

- Most CW Contacts – John, WB6FRZ, with a total of 286
- Most Phone Contacts (all bands) – Mark, W6GOL, with a total of 105
- Most Digital Contacts – Warren, K6WRP, with a total of 49
- Most 2m FM Contacts – Mark, W6GOL, with a total of 24
- Iron Pants (aka Butt-In-Chair or BIC) – Leland, W6GEE with a total of 14:05 hours.
- Most QSOs/Hr in a Sprint (total operating time < 1 hour) – Bill, AA6BD with 24.9 QSOs/Hr
- Most QSOs/Hr in a Marathon (over entire FD period) – John, WB6FRZ with 21.4 QSOs/Hr

Congratulations to all the winners! They will each be receiving a certificate and a commemorative Field Day 2020 pin.

In reviewing the Soap Box comments, it seems that most

everybody had a fun time and tried something new. For some it was operating under emergency power while for others it was trying out a new antenna or radio, or doing computer logging. One member even created his own logging program!

I think we are all just a little better for having tried these new things.

Many also commented, however, that they miss the camaraderie of our traditional Field Day event. I have to concur. And I think that to be viable as a club, we need to go back to the way we used to do it. Although a few of us did get a chance to talk about ham radio to passers by, it just wasn't the same as past years. The social aspects of Field Day should not be overlooked.

Although it is encouraging to know that if forced to do so, we can do a distributed Field Day, I do not believe it should be the "new normal". I hope that Field Day 2021 will be more like Field Day 2019.

Be sure to look through the Field Day Soap Box comments which follow.

I received logs from the following:

- Bill, AA6BD; Mike, AD6YB; Fred, AE6SF; Jack, K6ROW; Howard, K6SID; Tom, K6TJP; Warren, K6WRP; Doug, KF6LMB; Darryl, KI6MSP; Dave, KI6UGB; Jim, KM6GUO; Jeff, KM6Y; Peter, KN6AWA; Clayton, KN6ENO; Charlie, KZ6T; Nick, N1CKA; Brian, N6IIY; Leland, W6GEE; Mark, KG6GOL; Cornell, W6HMN; Jay, W6LZJ; John, WB6FRZ; and Rick, WW6RC

Lastly, I want to thank all those that helped make this happen, especially Fred, AE6SF for his work on documenting how to set up the computer logging; Bill, AA6BD for organizing a "virtual educational activity" on WinLink, and Charlie, KZ6T for making his satellite station available for others to make a satellite contact and hosting the on-line planning and logistics meetings.

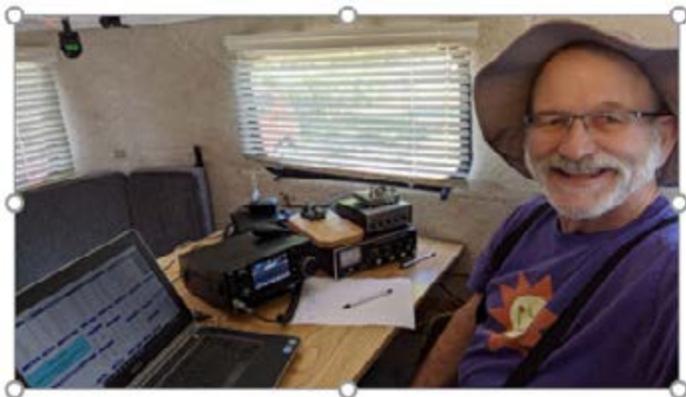
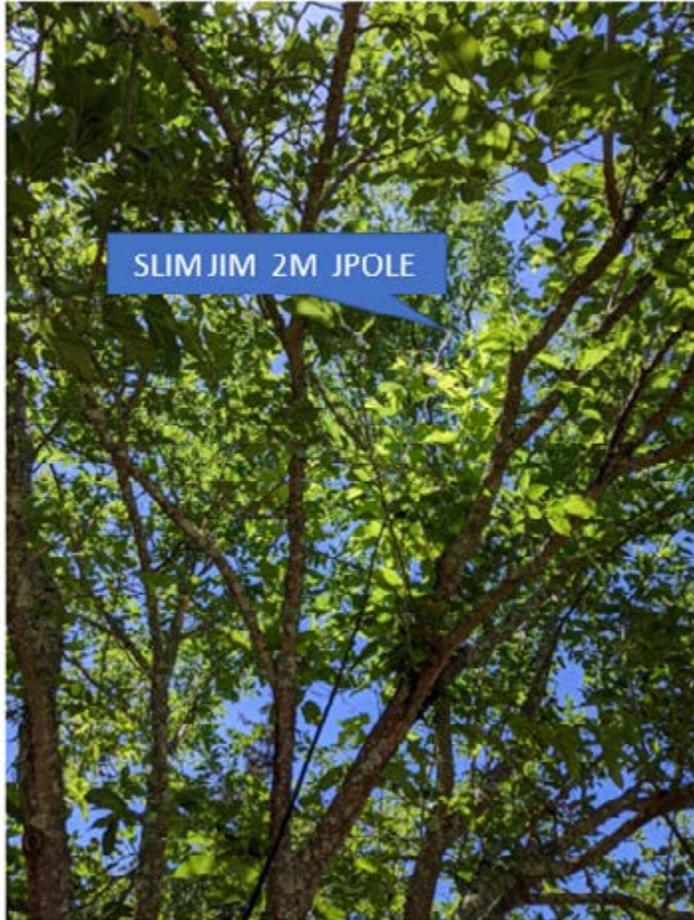
73,
Brian Torr, N6IIY
SCRA Field Day Chairman





Field Day 2020 Soap Box

I enjoyed working new hams on VHF. I also had a grand time operating HF into the night. At sunset, the battery voltage and RF output power dropped due to loss of solar charging, so I switched from voice to CW and made many contacts. – Fred AE6SF



Continued on page 15...



Field Day Soap Box continued from page 14...

From Mark, W6GOL:

Summer Field Day started the day prior with Joe K6AWA coming over to help set up the club's ZeroFive antenna in my pasture. It was then connected to the club's Kenwood TS-590S in my shop, about 70 feet away. Running on battery power during my first Summer Field Day, I made phone contacts on 70cm, 2m, 10m, 15m, 20m, and 40m. It was exciting to occasionally check the club's status web page to see how many points each participating member had accrued. This friendly form of competition definitely inspired me to keep striving for more contacts. My goal was to reach triple digits in contacts and I just made it. Although it was disappointing not to have the direct camaraderie of club members in a group setting, we did the best we could under the circumstances and I thoroughly enjoyed the experience.

=====

From Leland, W6GEE:

This was the first time I used a solar powered Bioenno battery setup outdoors for about 14 hrs total operating time. I had so much fun with this that I left my outdoor setup so now I'm operating more "al fresco" these days. This has been a great relief when it's 90 degrees-plus in the shack on hot days!

=====

From Howard, K6SID:

This year's Field Day was a challenge for me. I was having real issues at my new home with my antenna and setup. I am a digital junkie, yet I could not get PSK31 to work at all and was having marginal reception on FT8. About the only band I was having reasonable success was 20 meters. When I was on 40 meters the RF in the newly remodeled home was causing problem. A lot of this was later solved with the help of John Felton, KE5RI.

I have always enjoyed Field Day with the comradery that FD normally brings about. Putting up antennas, working together on a particular mode (Digital, CW or SSB), along with just getting to know the other members of the club. All of this was not an option because of the pandemic, CORVID-19, this FD. In some ways it opened another aspect of ham radio and that was just competing against everyone individually and especially within the club. It was nice to be able

to see how everyone was doing against each other on the combined club data being collected. What this FD also did is make me aware of my need to explore other aspects of hamming that I have thought about but have not really pursued – satellites and getting back into CW.

Going forward FD made me totally aware of my need for a better antenna. I am determined to find a solution for that. I am currently looking to put up a flagpole antenna to circumvent the HOA restrictions here in Oakmont. I am also open to any other ideas club members may have. I only hope that my personal interest of chasing DX stations is not a thing of the past.

I am looking for to future Field Days and Winter Field Day.

=====

From Rick, WW6RC:

Field Day this year was my first field day since 1955. So it was almost a brand new experience. My wife and I took our travel trailer to Casini Ranch Family Campground in Duncan's Mills and spent the weekend there. We enjoyed our outing since we have been stuck in our house since the Covid-19 stay at home program started back in March. Our only compliant was that the campground was full. That made it difficult to practice social distancing. Most of the campers were ignoring the social distancing protocols and only wore face coverings when they went to the campground store and office. Sue and I wore ours whenever we were outside and other campers were anywhere near us. We didn't get any hard times for this but we also didn't cause anyone else to put on a face mask as we hoped it would.

I got there on Friday around noon. Once we got the trailer setup I started setting up my rig. I used an antenna that included a Chameleon Spyder ASB with 4 sets of Shark Ham Sticks, 40, 30, 20, and 10 Meters. I installed them on a 25 ft mast that I got from MFJ. I used a drive-on base plate for the mast and then guyed it at the top trying to keep the guys within my campsite. I ended up tying the mast to one of my awning supports at the side of the trailer and running the guys over top of the trailer. Being 25 feet in the air it got a lot of attention from other campers so I got to tell them about Ham Radio and our annual field day.

Continued on page 16...





Field Day Soap Box continued from page 15...

I also setup my Ed Fong 3 band J-Pole on a short tripod so it was about 6 feet above ground for VHF and UHF. I have a 100 watt flexible solar panel and a 40 Amp Hour LiFePo4 battery pack.

I used them to power my IC-7100, my laptop, and a second monitor. I completed the setup by the time the sun went down on Friday and made a couple of contacts just to make sure everything was working ok. I was able to just barely make a contact on the SCRA repeater (147.315 MHZ) but it was not very satisfactory. Saturday I had fun using the setup to make contacts using FT8 digital protocol keeping my transmit power down to 50 watts. The battery was maintained by the solar panel and I finished up the evening with it still about only 50% discharged.

All in all it was a good day and I had fun. I didn't run late into the night time on Saturday so my number of contacts were limited. I did make a contact with a ham in Hawaii and one in Missouri the rest were here in California, Arizona, Texas, Colorado, Nevada, Oregon, Washington and British Columbia. The day was a success.

=====

From John, WB6FRZ:

As mentioned in SCRA historical documents and most everyone involved in past SCRA field day activities, FD is about getting together and sharing amateur radio with our family, friends, and passers-by whom we do not even know. It's about comradery, having fun together, eating together, and making radio contacts together. It's about introducing the general public to the normally obscure, unseen, rarely-noticed vital backup communications service amateur radio provides.

But for me, that did not happen this year. My activity this year was an "un-Field Day." Don't get me wrong, I had a LOT of fun making contacts and enjoying the comforts within the confines of my shack.

It simply lacked the excitement and type of enjoyment one gets from working with a group <in close proximity> and helping each other during the weekend

towards accomplishing all that our club usually does for field day.

So yes I had fun, yes I would do it again, but I don't call it field day.

=====

From Warren, K6WRP:

Given that this was an unusual Field Day, I thought I would try something different. I had never used digital modes, so I downloaded WSJT-X, watched a few YouTube videos about FT-8 and I was off to the races. I found contesting to be even more like fishing than phone (voice). I had so much fun trying to get DX stations that I lost track of time. I also love being able go online and see a map of the stations around the world that received my signal. With 100W and a wire, I was being received in South Africa and China. I still love hearing a voice most but I now start out my sessions with FT-8 and the map just to see what propagation is like at the moment.

=====

From Peter, KN6AWA:

Having Fun with Field Day 2020 - KN6AWA, Peter. Equipped with a Yaesu FT-2D, extra batteries, a tape-measure yagi antenna, and other radio essentials; I hiked a mile and a quarter to the 740-ft lookout in Shilo Regional Park and setup shop for about 5 hours. I thought I'd have more QSOs but all my contacts were clear and the view was spectacular. As a bonus, every masked hiker that wandered by was curious - several very curious - so I did some public education as well. And one more thing... Prior to field day, I created a logging database on software called Notion and used an iPad to log my QSOs. All around, it was an adventure in radio for my second field day as a licensed amateur.

=====

From Jim, KM6GUO:

My wife and I live full time in an Airstream Trailer. Usually we are on the road about 1/3rd of the year -

Continued on page 17...





Field Day Soap Box continued from page 16...

and would be someplace else in June. But the pandemic finds us sitting in a vineyard near Geyserville in a semi-permanent location. Although we can connect to shore power, (it is a very long wire), we also have solar installed on top of the trailer, and just installed lithium batteries. So I could unplug and operate as a 1E. I had helped set up a couple of FDs in the past, and helped operate Winter Field Day last year. But this was my first solo outing. The antenna is set up on a tripod next to the trailer and the radio sits in a drawer in the trailer. A Raspberry Pi drives digital modes - with a local area network that let's me sit anywhere near the trailer (and in fact I could even be remote...) and drive the RPi which drives the radio. Lots of moving parts that need tweaking. I succeeded at FT8 and Winlink.

I failed to copy enough of the Field Day Bulletin in CW - but had a good time trying out my partial CW knowledge (thank you John WB6FRZ).

From Jeff, KM6Y:
Here's a photo from Jeff showing the solar power setup he used to make natural power QSOs -



From Brian, N6IY:
For many years I thought about how I might operate Field Day if I didn't do so as part of a club effort. This was the year to put some of those ideas into action. I set up in the field next to our family's house in Monte

Rio. My operating position was under the shade of a 100' tall spruce tree that supported two dual-band slopers, one for 80m/40m CW and one for 40m/20m SSB. I also set up full wave diamond loops for 15m and 20m. Power was from my Honda EU2000i. generator. Unfortunately, several of the antennas had too low of a take-off angle to get over the hills just a few blocks to the east. So the vast majority of my contacts were to the north and south of my QTH. I changed my tactics slightly on Sunday and that resulted in a much higher Q-rate. If I operated on Saturday the way I did on Sunday, I probably could have doubled or even tripled my total number of contacts. Still, I had a great time.



The QSO Today Virtual Ham Expo is coming August 8-9, 2020. Free admission. Hear from 30+ presenters on topics like "Summits on the Air" to "Simple HF Antennas" to "Is 3 dB Worth a Divorce?" Visit virtual exhibitor booths virtually and converse with a representative. There is more information at <https://www.qsotodayhamexpo.com/> including a list of presenters and exhibitors.

The organizers say: "Despite the current Covid-19 situation, ham radio operators are more active than ever and want to continue to learn and engage with their community. To meet this need, we've organized the first of its kind, virtual ham radio expo designed to allow everyone interested in amateur radio to engage with amazing speakers, leading suppliers of equipment, parts and services, and fellow attendees. Our virtual expo platform provides a visually captivating and easy to navigate user experience that recreates the look and feel of a physical amateur radio convention. "

For more on Ham Expo, listen to this podcast where the hosts interview Eric Guth who explains all about the Ham Expo. <https://lhspodcast.info/2020/06/lhs-episode-354-qso-today-ham-expo-deep-dive/>
I'll be attending - virtually. -Bill Dornbush AA6BD



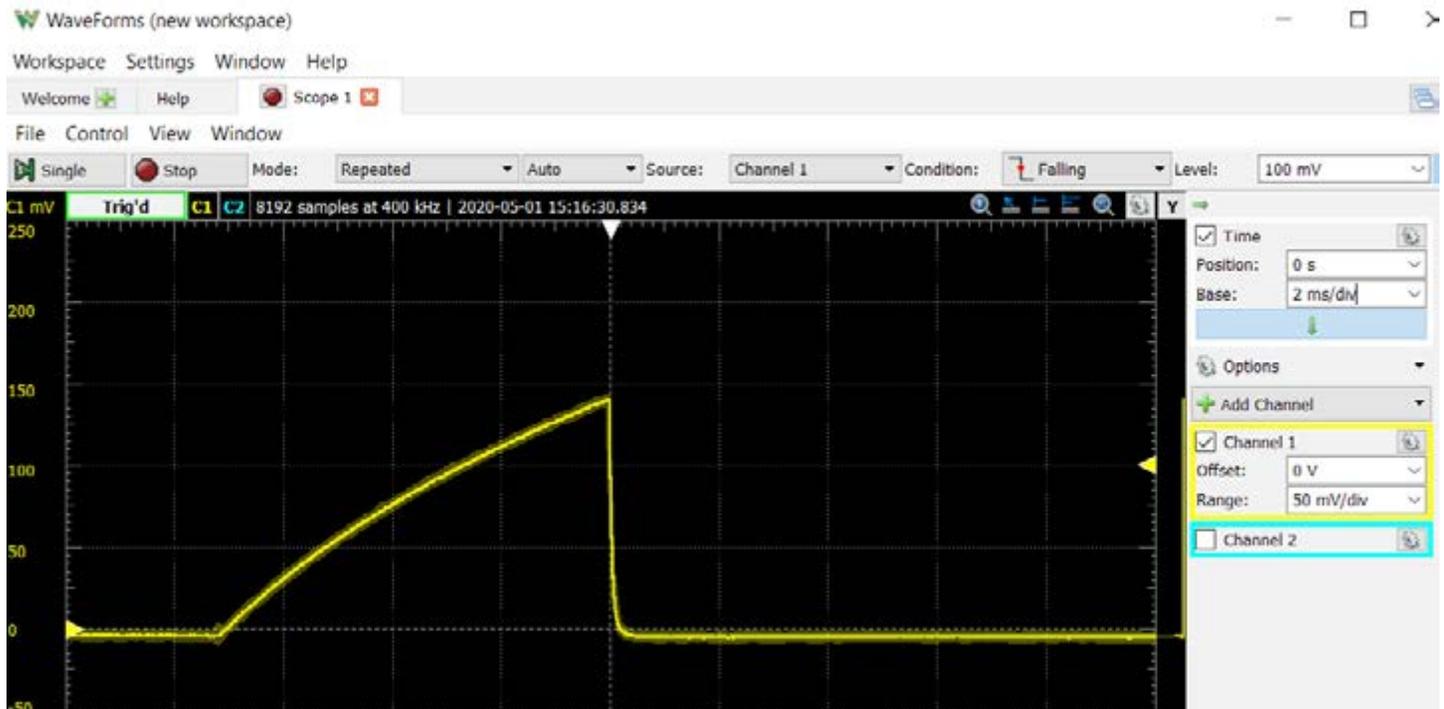
Growing Radio Amateurs continued from page 1...

2 - Using LEDs and Resistors, and Determining Voltage and Current

We connected LEDs and resistors to our Raspberry Pi and blinked the LEDs at various intensities. We tried an RGB LED to see the colors we could generate. and then

3 – Using Capacitors, and exploring the RC time constant

We connected a capacitor and a thermistor to our Raspberry Pi and learned how we could use the charging of the capacitor through the thermistor to determine the temperature, and get it to buzz at us when the temperature exceeded 80 degrees F.



Our next class was

4 – Sensors – Temperature and Humidity



We used an inexpensive sensor to measure temperature and humidity. We displayed it on our Raspberry Pi and also connected it to the Adafruit IO (AIO) cloud so we could see our measurements graphed and displayed on any web browser including a cell phone. We also used AIO to control an LED on our Raspberry Pi from any web browser.

The class decided that they wanted to explore more about using the Raspberry Pi for Ham Radio applications, so we will look next at using a Raspberry Pi for Winlink, APRS, and WSPR.

The class direction is determined by our attendees, and might explore more basic electronics, or Arduino, or who knows?

You are welcome to join us. We meet via Zoom on the third Wednesday of each month at 7 PM. I can provide the class session handouts (digitally, of course) and you can get up to speed on our journey so far. Contact me, Bill Dornbush AA6BD at AA6BD@arrl.net.

ARRL Adopts New Band Plan

by Andrew KE6HID

The ARRL Board of Directors adopted on July 17, 2020 a revised band plan per the recommendations of its Band Planning Committee. Some of the revisions require FCC approval which has not been obtained, so the new plan is not yet effective, but it shows the direction in which the ARRL is headed. The changes impact the 80, 40, 30, 20, 17, 15, 12, and 10-meter bands, and include in part:

- Allocation of specific sub bands for NB, WB and ACDS (Narrow Band, Wide Band, and Automatically Controlled Digital Station e.g. WinLink) modes
- Granting Technicians voice and data privileges on 80, 40 and 15M

The adoption announcement is here: <http://www.arrl.org/news/arrl-board-meets-in-remote-electronic-meeting>

The proposed plan with a comparison to the existing plan is here: <http://www.arrl.org/files/file/ODV/Second%20Board%20Meeting%20July%202020/Doc%2025A%20Band%20Plan%20Final-1b.pdf>

Changes in band allocations are always contentious. Concerns include:

- WB and ACDS modes interfering with conventional modes
- Technicians losing incentives to upgrade
- Ham radio becoming an appliance hobby (or service)

Here is a contentious discussion on the qrz.com forum: <https://forums.qrz.com/index.php?threads/final-band-plan-accepted-today-by-the-arrl.716890/>

Implementation is likely to be distant and well publicized. In the meantime, the current band plan chart dated April 2017 is still in effect: <http://www.arrl.org/files/file/Regulatory/Band%20Chart/Band%20Chart%20-%202011X17%20Color.pdf>

Aaron Marroquin

SCRA was sorry to report the passing of Aaron Marroquin KK6ZDB. SCRA members were invited to drop by Santa Rosa Memorial Park. If you need directions to the gravesite, contact Mike AD6YB.

73s,

Mike - Michael Von der Porten mikevdpc@aim.com (confirm that any reply goes to this email) home (707) 545-7520 cell (707) 525-1625

SCRA VE Testing continued from page 1...

Candidates arrived in two groups to find a coned-off perimeter and instructions to tune their FM radios to a specified frequency. Using a low-powered transmitter, Brian directed people to their individual parking places and gave out the testing instructions.

Each candidate took his test in his own car. When done, he flashed his lights and the proctors took the exam and paperwork.



Three scoring stations were set up six feet apart to keep that social distancing.



Continued on page 20...



SCRA VE Testing continued from page 19...

Thirteen candidates each passed the primary test for which they had come: 5 new Technician licenses, 1 new General license, 3 upgrades to General, and 4 upgrades to Extra. Three candidates chose to try a second test, but none were successful.



Eight VEs and two non-VE volunteers participated in the session. These included Brian, N6IY; Dave Pearson, KD6DBP; Fred Seitel, AE6SF; John Seigman, K6UIT; Dave McQuate, WA8YWQ; Bill Hillendahl, KH6GJV, John Breckenridge, WB6FRZ; Mike Von der Porten, AD6YB; Iola Beckley, KK6HRE; and Jim Panttaja, KM6GUO.

Other COVID-19 compliant testing systems have been reported, but these often required three or more VEs for a single candidate. This parking lot system results in more than one candidate being served for each VE's effort.

Brian reported unusual gratitude from the testing candidates. Few clubs are currently offering VE sessions and those taking the Extra class test desired to get in before the question pool was updated.

A similar session was scheduled for August 1. Advance signup was required. Only the usual testing fees were required.

Mike AD6YB

And back again on August 1:



FIRE POWER

How to prepare for power outages

Pat Coyle, KG6JSL
EmComm Chair

We have had a dry winter with a hot summer and fire season will soon be upon us. PG&E has instituted its Public Safety Power Shutoff which will shut down power in designated areas as weather conditions dictate. There are two essential considerations to address in a power-off event. First is how much power do you need, and second is how to get it.

Calculation of power needs is relatively simple for the residential user. First, take an inventory of equipment you want to power such as refrigerators, lights, radios and other equipment, and then determine the power required in watts.

All electrical equipment has a data plate listing the volts and amps used. Watt usage is determined by the formula of $\text{Watts} = \text{Volts} \times \text{Amps}$. For example, your refrigerator may list current usage as 8 amps at 120 volts. Multiply 120 by 8, and the results is 960 watts. Write this down and continue with your measurements of other equipment. There are also charts online that list average watts and power usage for household appliances.

When you have determined the power you want or need, you can begin to shop for a power supply.

GENERATORS: Stand-alone generators are best for power needs that include household appliances. Generators are available in a multitude of power (wattage) ratings at its designed voltage, usually a nominal 120vac.

It is beyond the scope of this article to discuss generators in depth. Suffice to say shop around for the generator with the wattage output you need. Do NOT connect the generator to the household wiring unless a professionally installed safety device is used. Otherwise the generator power will go into the power lines and can kill someone who may come in contact with the lines. Run extension cords to the devices you want to power by generator.

BATTERIES:

There are a large variety of storage batteries with different power capacities. Battery capacity is measured in amp hours. An amp hour is the amount of energy in a battery that will allow one ampere of

current to flow for one hour. For example, a 50 amp hour battery will supply one Amp to a device for 50 hours. Or, if the device draws 10 amps, the battery will last 5 hours.

To determine the amp hour capacity you want, determine the current draw in amps per hour. To calculate the amp-hours required for an event or other usage, multiply the amp draw (from the Specifications page of your manual) by the time of usage in hours or fractions of hours. The popular Yeasu 8800 draws .5 amps on squelch receive (a touch more when actually receiving). In one hour on receive only, the radio will draw .5 amps per hour.

Next calculate power usage when transmitting. The Yeasu will draw 8.5 amps when transmitting at full power. Estimate the total time you will be transmitting on the air one hour or fraction thereof. Thus assuming you will be on the air 12 minutes in one hour (20% of an hour) multiply 8.5 by .2(20%) equals 1.7 amps per hour usage while transmitting. Add the .5 amp hours used receiving and 1.7 used amps transmitting and the total is 2.2 amps used per hour. Multiply 2.2 times your expected usage in hours, say 7 hours, for a total of 15.4, which are the amp hours you will use.

However, complicating the matter is that as the battery discharges the voltage will decrease. A ham radio should not operate at less than about 11.8 volts. A rule of thumb for automotive type storage batteries is that output voltage reach 11.8 volts at 70% of rated amp hours. Thus, to obtain the needed 15.4 amp hours of our example, one needs a battery of approximately 25 amp hours.

Large automotive or marine type batteries are usually rated in Cold Cranking Amps (CCA). To convert CCA to Amp hours, divide the CCA by 7.25 and the result is Amp Hours.

Emergency power supply batteries can be used to power radios, and with inverters and adapters can be used to power computers, recharge hand held radios, phones, Wi-Fi modems and other small electronic devices.

Remember however that a ham radio should not be operated below about 12 VDC. Generally the voltage output of a storage type battery will drop below 12 volts at about 70% of rated capacity. Thus, our 100 amp hour battery has about 70 amp hours of usable capacity. These are general numbers to use as a rule of thumb. Consult with the Seller, or do online research, for more accurate information.

Continued on page 22...



Fire Power continued from page 21...

Better yet is to purchase an in-line Wattmeter that shows current voltage and other parameters. Check on Amazon for Wattmeter.

It is best to purchase a “deep cycle” battery. Deep Cycle batteries can accept many more discharge/charge cycles than an ordinary automotive starter battery. Battery+Bulbs at 2648B Santa Rosa Avenue has a wide selection of batteries of all types and is worth visiting.

GADGETS AND ACCESSORIES

Your “power out” operation can be enhanced by using devices that will adapt to other uses.

Inverters will convert 12 volts VDC from storage batteries to 110 VAC to enable use of wall warts, and other small AC devices. Inverters are rated in watts of AC voltage. Auto part stores have inverters of various capacities. Here again a conversion of watts to amps is necessary to determine how much amps are available. The formula is to divide volts into watts to determine amperage output. Thus, a 400 watt inverter, divided by 120 output voltage will provide 3.3 amps. Check your device specification for amp draw and the inverter specs for amps available.

Modern digital devices draw very little current, usually less than 1 amp. A cell phone wall wart charger draws approximately .5 amps. My laptop power supply also draws .5 amps. These can all be plugged into a modest inverter to provide power to your daily devices. Your HT wall wart charger can be plugged in, as well as your home Wi-Fi modem. You are limited only by your imagination and power requirements.

You should have power plug and power receptacles wired with twin lead wire and Anderson Power poles for easy connection to your main battery source. I recommend you use #10 twin lead for wire runs more than about 10 feet, or even less. Line resistance becomes a serious factor beyond 10 feet at 12 volts.

CHARGING BATTERIES

At some point you will have to recharge your batteries. Generators usually have a 12 VDC outlet to charge storage batteries. If it does not, buy a cheap battery charger at an auto parts store to plug into the generator.

A readily available battery charger is your vehicle. Most modern vehicles have a dedicated 12 volt connection specifically designed to accept jumper cables. Simply connect your jumper cables to the

connection point, or the battery terminals (observe correct polarity) and start your car. Everyone should have jumper cables in their auto and know how to use them.

Modern vehicles also have various power and USB ports. These can be used to power or charge various devices. Determine whether these ports are “switched” or “unswitched.” A switched port is on or off with the ignition key. An unswitched port is powered all the time. Mark them so you do not later forget when they are powered.

These ports can be used to charge your phone or HT overnight in your car. Their slight draw will not materially discharge your auto battery overnight. Phone stores have power plugs specifically to recharge your phone in a power port. Most radio manufacturers have the same type of adapter for HTs.

Solar panels are also available to recharge your battery, or supplement current while the battery is in use. There are numerous solar panels of various sizes power capacities that can be used to recharge your battery or devices. A voltage regulator is necessary. Research and shop online, and consult with friends to select a combination suitable for your situation.

You should also have on hand the various hand tools and meters used in the hobby and necessary to construct your set up. With a little planning you can be quite comfortable with the grid down.



Top: Watt/voltage meter; 2 inverters
Bottom: Power line splitter, power port, power plug



System Fusion

Yaesu System Fusion – the Easiest to Use Digital Voice System

At the July SCRA club meeting, I presented Yaesu System Fusion, or YSF. After using both DMR and YSF, I believe YSF has the edge over DMR on ease of use. You don't need to do anything in advance to program anything on your radio.

To connect to a "Room," the YSF name for a reflector or talk group, you can enter the room number (DTMF ID) or search for the name and use it. That's all you need to do. No programming or code plug is needed.

To find room numbers/ DTMF IDs and names, see https://www.yaesu.com/jp/en/wires-x/id/active_room.php For example, you will find the SONOMACOUNTY room, with a DTMF ID of 62732.

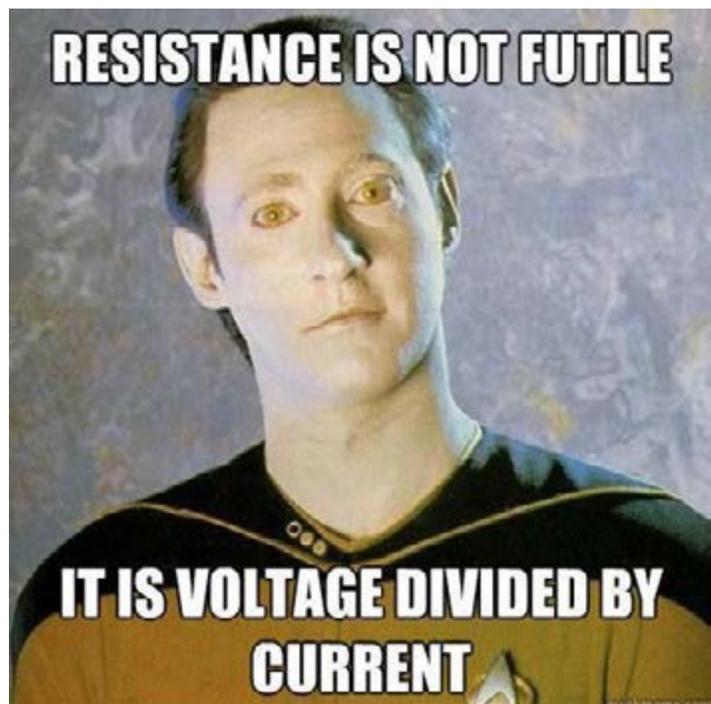
Other rooms you might be interested are:

- WW6BAY-ROOM / 28339
- LA-REPEATER / 21042
- AMERICA-LINK / 21080

Our repeater, located on Castle Rock at 441.375 MHz, defaults to the SONOMA COUNTY room, and you can connect to other rooms as you want. You can use this repeater to talk on analog as well as YSF Digital. It supports both, another feature of Yaesu System Fusion.

To see the presentation and more information, see <http://sonomacountyradioamateurs.com/wp/irlp/>

--Bill Dornbush AA6BD





Ooh, ooh, I have a Question!

From the NEW 2019 -2023 General Class Question Pool:

G2A07 (B)

Which of the following statements is true of the single sideband voice mode?

- A. Only one sideband and the carrier are transmitted; the other sideband is suppressed
- B. Only one sideband is transmitted; the other sideband and carrier are suppressed
- C. SSB is the only voice mode that is authorized on the 20-meter, 15-meter, and 10-meter amateur bands
- D. SSB is the only voice mode that is authorized on the 160-meter, 75-meter, and 40-meter amateur bands

And What About This?

From the NEW Extra Class Question Pool:

E1B05 (C) [97.3]

What is the National Radio Quiet Zone?

- A. An area in Puerto Rico surrounding the Arecibo Radio Telescope
- B. An area in New Mexico surrounding the White Sands Test Area
- C. An area surrounding the National Radio Astronomy Observatory
- D. An area in Florida surrounding Cape Canaveral

New Amateur Extra Question Pool Released

01/27/2020 (<http://arrl.org>)

The new Amateur Extra-class license examination question pool, effective from July 1, 2020, through June 30, 2024, has been released and is available at the [National Conference of Volunteer Coordinators \(NCVEC\) website](#).

The [2020 – 2024 Extra-class pool](#) incorporates significant changes compared to the 2016 – 2020 question pool, which expired on June 30. The number of questions in the pool was reduced from 712 to 622. The result was 239 modified questions, 49 new questions, and 139 questions removed due to changes in what was felt to be an abundance of outdated questions, while areas of new technology and subjects were added.

In addition, an effort was made to balance the difficulty level, removing or replacing some questions deemed too easy or too difficult compared to the rest of the pool. The 2020 pool has 10 diagrams, which have been renumbered because the new question pool has two fewer than the 2016 question pool.

Mentors

Having a problem with your equipment? Can't get the SWR down or your radio won't tune up? Notice some smoke escaping from your transceiver? You may need some help but where to go for this help? You could come to the club meetings and talk to people to see if they can help. You're bound to find someone to help you.

Help can also be found at the SCRA web site (sonomacountyradioamateurs.com). Just log in and click on the Member Area and then click on Mentors. Here you will find a list of hams that are willing to help out so you can your problem solved and get back on the air.

[SCRA Education Chair](#)



Sonoma County Radio Amateurs, Inc.
PO Box 116, Santa Rosa, CA 95402

(Please print & fill out the form and mail it in with your check payable to SCRA.)
 (Please check all that apply)

Date: _____ New Member: Renewal:
 1) Name: _____ Call Sign: _____ License Class: _____
 Address: _____ City: _____ Zip: _____
 Cell Phone: _____ Home Phone: _____
 Email: _____ Show contact info in Roster:
 ARRL Member:

SCRA Dues: The renewal date for SCRA dues is January 1st. Dues are \$20/year for individual, \$30/year for families, and \$15/year for youth (under 18).

*** Prorated Dues for New Members Only:** Reduced dues after the 1st quarter.
 2nd Quarter April–June: \$5.00 off — 3rd Quarter July–September: \$10.00 off
 4th Quarter October–December: Pay the yearly dues for next year and get the rest of this year free.

Family Membership Members:

2) Name: _____ Call Sign: _____ License Class: _____
 Address: _____ City: _____ Zip: _____
 Cell Phone: _____ Home Phone: _____
 Email: _____ Show contact info in Roster:
 ARRL Member:

3) Name: _____ Call Sign: _____ License Class: _____
 Address: _____ City: _____ Zip: _____
 Cell Phone: _____ Home Phone: _____
 Email: _____ Show contact info in Roster:
 ARRL Member:

4) Name: _____ Call Sign: _____ License Class: _____
 Address: _____ City: _____ Zip: _____
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 ARRL Member:

I would like more information about:

- | | |
|--|---|
| <input type="checkbox"/> a) Public Service Events | <input type="checkbox"/> f) Training Classes |
| <input type="checkbox"/> b) Field Day (4 th Saturday in June) | <input type="checkbox"/> g) VE License Exams |
| <input type="checkbox"/> c) Contesting & DXing | <input type="checkbox"/> h) Field Trips |
| <input type="checkbox"/> d) Emergency Services | <input type="checkbox"/> i) Short Skip Newsletter |
| <input type="checkbox"/> e) SCRA Net Control | <input type="checkbox"/> j) SCRA Committees |
| <input type="checkbox"/> f) SCRA Loaner Radio Program | <input type="checkbox"/> k) Other _____ |

SCRA Dues: Individual \$20, Family \$30, Youth (under 18) \$15 (*see Pro-Rated Dues above)	\$ _____
Name Badge: \$10 each Please circle clasp type, either Clip or Magnet.	\$ _____
1) Call Sign: _____ First Name: _____ City: _____	Clip or Magnet
2) Call Sign: _____ First Name: _____ City: _____	Clip or Magnet
3) Call Sign: _____ First Name: _____ City: _____	Clip or Magnet
4) Call Sign: _____ First Name: _____ City: _____	Clip or Magnet
	SCRA Logo Patch: \$5 each \$ _____
	SCRA Logo Decal: \$2 each \$ _____
Please make check payable to SCRA.	Total Amount Due: \$ _____

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KENWOOD

YAESU
The radio



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IC-7300
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2M/440 Dualband



FT-891
HF+50 MHz All Mode Transceiver



IC-7100
All Mode Transceiver



TM-V71A
2M/440 Dualband



FTM-300DR
C4FM/FM 144/430 MHz Dual Band



ID-5100A Deluxe
VHF/UHF Dual Band Digital Transceiver



TM-281A
2 Mtr Mobile



FTM-400XD
2M/440 Mobile



IC-705
HF/50/144/430 MHz All Mode Transceiver



TH-D74A
2M/220/440 HT



FT-70DR
C4FM/FM 144/430 Xcvr

5 Ways to Shop!

- RETAIL LOCATIONS – Store hours 10:00AM - 5:30PM - Closed Sunday
- PHONE – Toll-free phone hours 9:30AM - 5:30PM
- ONLINE – WWW.HAMRADIO.COM
- FAX – All store locations
- MAIL – All store locations

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SHORT SKIP ARCHIVES AVAILABLE

Mike, AD6YB, has set up archives for past and present issues of Short Skip. They are available on the Website under the tab, Our Club. Mike has scanned in the old paper issues and it is really interesting to browse through them to see what those guys were doing. There are historical photos as well. An important record of our history and ham radio in general. Good Stuff.

[\(Click Me\)](#)

DIDN'T FIND WHAT YOU NEEDED?

If you are looking for something more on a topic or your topic of interest hasn't been covered lately, let us know. Something you'd like to see in Short Skip?

Contact the editor, shortskippeditor@gmail.com or for general questions and /or suggestions, k6son@arrl.net

SHORT SKIP NEEDS YOUR INPUT

SHORT SKIP ARTICLES WANTED

Dave, KI6UGB, our Short Skip editor is always looking for articles of interest. They can be technical, a good (or bad) experience that other members may learn from, hints or kinks that worked for you in solving a problem, or just about anything ham radio related. Send your contributions to Dave at shortskippeditor@gmail.com

