



Welcome to SFARC, Auburn, CA



P.O. Box 6421 Auburn, CA 95604

July 2020

<http://w6ek.org> info@w6ek.org

At The Key of SFARC:

PRESIDENT

Brian Gohl, AI6US
AI6US@titaniumsattelite.com

VICE PRESIDENT

Greg Dolkas, KO6TH
ko6th.greg@gmail.com

SECRETARY

Michele Bauer, WH7QC
mickeybauer2012@gmail.com

TREASURER

Jeff Morgan, KM6RGO
jamontrail@gmail.com

DIRECTORS

Gerry Brentnall, WA6E
Nathan Chilton, K6NDC
Wayne Stilwell, W6DT

FIELD DAY CHAIRMAN

Gary Frerking, KC3PO

REPORTERS

Satellites: Greg, KO6TH
Sunshine: Richard, WA6RWS

GROUPS io

Dennis Gregory, WU6X

PIO

Scott Vogelsang, WA6YNE

REPEATERS

145.430 (-0.6 MHz/PL 162.2)
440.575 (+5.0 MHz/FUSION)
223.860 (-1.6 MHz/PL 110.9)

CLUB NET

Thursdays, 7:30PM, W6EK/R
145.430

CLUB MEETINGS

Second Friday of the month,
7:30PM at the Auburn City Hall,
1215 Lincoln Way, Auburn CA

CLUB BREAKFAST

Last Sat of the month at Mel's Diner
1730 Grass Valley Hwy, Auburn 7:30AM

NET CONTROL OPS

Dave Jenkins, WB6RBE
Casey McPartland, W7IB
Orion Endres, AI6JB
Al Martin, NI2U

NEWSLETTER EDITOR

Barbara Anderson, W6EVA
anderson51@wavecable.com

WEBMASTER: Herb Garcia, KM6JBI

VOLUNTEER EXAMINER

Al Martin, NI2U

Calendar of Events



July 10th:

*On-line Club Meeting
@ 7:30 PM*

(Instructions on how to
join the meeting are in
Brian's column)

July 25th:

Club Breakfast

September 19th:

*Club picnic in
Applegate Park*



*Join us every morning starting
at 7:30am for the Coffee Break
Net on the W6EK repeater
145.43, PL 162.2*

Inside this issue

- *President's Message*
- *Club Breakfast group photograph*
- *Field Day photographs*
- *Securing PowerPole Connectors*
- *Board & General Meeting Minutes*

We encourage members to receive Sierra Signals via email to save the Club the cost of reproduction and mailing

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President's Message

*By Brian Gohl – AI6US,
President*

Field Day 2020 in Review

I am writing this as we all rest our voices, paddles, keys, and keyboards. Now is the time to catch up on our sleep, clean our gear and submit our contact logs from a very successful and fun filled Field Day held last weekend on June 27 and 28, 2020. Field Day 2020 will be remembered as the year we thought outside the box, got creative and found ways to participate and socialize as a club, yet social distance and observe safe practices. A special thanks goes out to Orion, AI6JB for leading this year's Field Day committee, developing the great Wiki information and training materials and hosting the Q&A sessions leading up to the event.

While most of us operated our home stations as 1D or 1E, several members operated from remote locations. Earl, K6GPB set-up at his remote Eastern CA cabin, Dustin, W6YUE was 2B high above Bishop, CA and Orion, AI6JB ran the W6EK club call station 1A near Duncan Peak Fire Lookout along with Matt, KK6YMJ; Peter, WB6POT; Wayne, W6DT with visitors Jeff AK6OK and XYL Patti. A surprise inspection by a CalFire employee prompted a more thorough ground cover removal around the generator, but yielded bonus points when he signed in as a served agency visitor.

The Field Day Zoom Room, hosted by Gary, WB7QWC was a hub of activity as members visited, shared stories, gave virtual tours or just pointed a camera at their station while working the event. We got to look in on Jeff, KM6RGO and his expedition set-up on Texas Hill, Marv, N7MSM and his home QTH station in Wyoming and Ken, K6KEC operating portable at a cabin in Montana, also Fred WA4VXW's eye-candy station in Grass Valley. We got to sit in with Greg, KO6TH while he worked a satellite and observed Carl, N6CKV; Gerry, WA6E; Doug W2VX running FT-8. Many other members dropped in at the Zoom Room to take a break, catch up with friends or sit in on a contact. Technical support was often heard as operational hurdles were addressed and failed equipment revived.

The 24 Hours of Field Day Net on the W6EK 2 meter repeater was a big hit. We had over 165 check-ins and some fun overnight QSOs! The repeater operated flawlessly over the nearly 28 hours of continuous operation! I was joined by Bob, N6EMS and Clyde, AB4CC to co-host the net. Many regional check-ins were made by operators returning from other clubs events and we heard reports from El Dorado, Grass Valley and Fairfield clubs. Two operators checked-in from their FD location near Ukiah, CA over 120 miles away from the repeater. Several operators had never operated Field Day before and Elmers walked them through the exchange and helped facilitate their first contacts. We will be awarding several

ARRL event 2020 pins to rookies who logged at least 5 contacts during FD. Through the entire event, we facilitated a social connection between ops and it provided a fun substitute from the usual Field Day site lounging in the shade of the canopies, eating the inevitable dust and chasing away the mosquitoes and watching out for the bears...

In the upcoming months we will learn the individual scores and the aggregated club score from the ARRL, but I will proclaim right now that Field Day 2020 was an undeniable success. While we weren't able to gather as usual at a Field Day site, we united as a club and spent many hours socializing, enjoying each other's company, and working together to submit a club log score. Thank you to everyone for making FD 2020 such a fun event!

W6EK 440.575 C4FM Digital Repeater

The test is over and the W6EK 70cm repeater is now officially a C4FM Fusion digital machine with repeater linking and a Wires-X node. At the June 12th club meeting, the membership approved the recommendation of the repeater committee to accept the Yaesu DR2X repeater, FTM-100 transceiver and HRI-200 Wires-X node donated by Scott, KK7AIR. Thank you Scott for your most generous donation! We appreciate your interest and support in developing a regional digital lined system and look forward to future expansion!

In the upcoming months more repeater and internet linking functions will be activated and documentation provided to users. Currently, the repeater can be accessed via RF, linked to the Gold Run KA6SUB repeater or directed to and from other Wires-X nodes and repeaters (like the W6EK 2 meter FM repeater) or other repeaters worldwide. Thank you to Bob, K6UDA for encouraging the club to explore digital radio. C4FM and Wires-X are now active and a permanent offering to our members and radio community.

Club Meeting July 10

Join us on July 10th at 7:30pm for our next online club meeting. Orion, AI6JB will be awarding The Club Field Day 2020 prizes and awards!

We want to make sure that all members and guests are comfortable with joining the meeting and are able to participate. If you have any questions about how to use GoTo Meeting, please contact any of SFARC board members and we will arrange assistance. Please be sure that your name and call sign are correctly displayed when you log in so we will have an accurate record of attending members.

Click on this link to join our meeting from your computer, tablet or smartphone:

<https://global.gotomeeting.com/join/423173365>

You can also view the meeting online and dial in using your phone to vote.

(872) 240-3212 then enter this access code when prompted: **423-173-365** or

One-Touch Telephone: **+18722403212,,423173365#**

W6EK Coffee Break Net

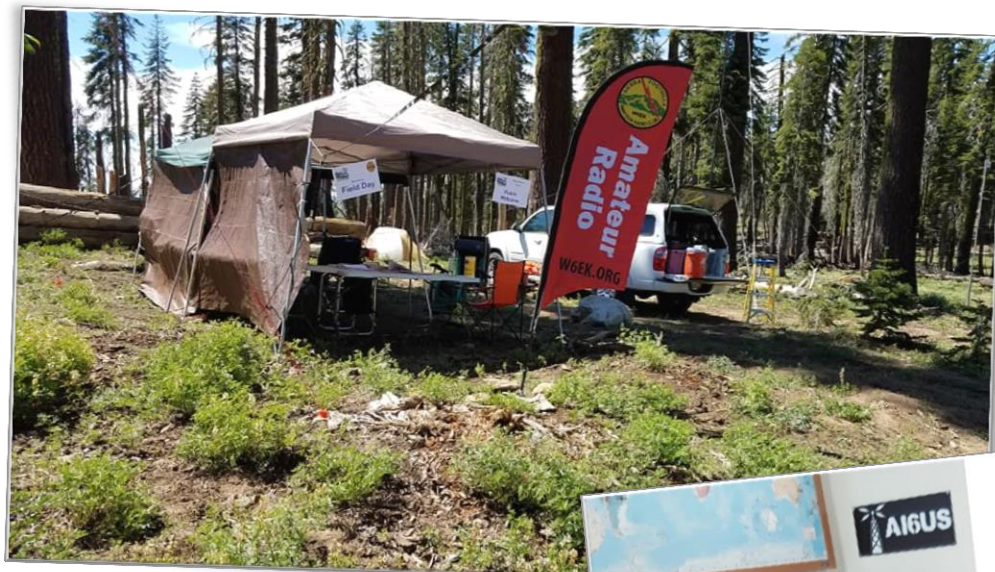
Join us every morning from 7:30 to 10am on the W6EK repeater 145.43, PL 162.2. A fun way to start your day! Would love to have a few more operators taking part in this fun morning activity. If you are interested in hosting the Coffee Break for a single day or part of a weekly schedule, please let me know.

Looking forward to talking with you again, a little further down the logbook!

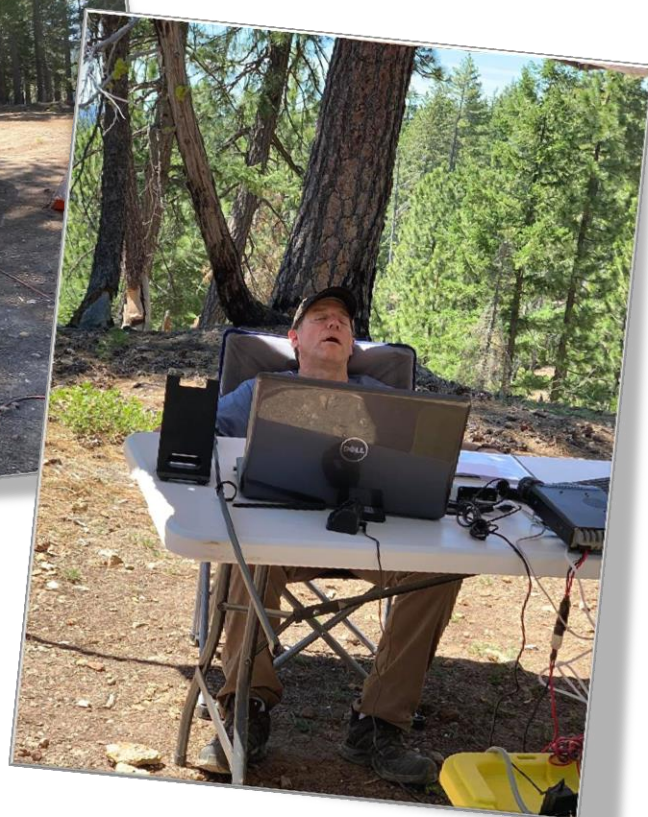
Until then, 73
Brian Gohl – AI6US
SFARC President



Club Breakfast – Mel's Diner
Saturday June 27, 2020



Field Day
2020



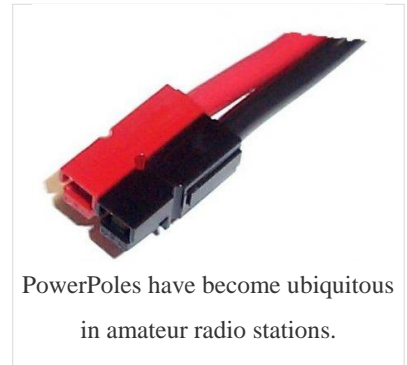
KB6NU's Ham Radio Blog

Securing PowerPole connectors

By Dan Romanchik, KB6NU

In preparation for this year's Field Day, I made a bunch of cables with PowerPole connectors to connect the solar panel, charge controller and batteries that I used. If you're not familiar with PowerPoles, you might want to [check out this YouTube video](#). They're really great connectors, and have become the DC connector of choice for many hams.

When I make up PowerPole cables, I normally don't bother trying to secure the two halves together, especially if you're using some decently heavy gauge wire. They fit together pretty tightly, and don't come apart easily. Even so, I think securing them together is a good idea. You can buy a little roll pin to insert between the red and black housings that is supposed to prevent them from coming apart, but many folks complain that the pin has a tendency to fall out. This not only defeats the purpose, but could also damage your equipment.



Securing them is the right thing to do, though, and I recently came across some great suggestions on how to do this in the daily digest that I receive from the [Elecraft-KX mailing list](#). Here are the best tips from the thread, [Securing Anderson PowerPoles](#):

- Rudy K8SWD: You can thermally bond the red and black housings with a soldering iron like you are making little welds on both sides. Permanent (mostly) but it works better than the roll pins. Just clean the tip really good before soldering!
- Dave K0CDA: [Anderson] also make connectors that are thermally bonded together in pairs. They do NOT come apart.
- Don W3FPR: I use a drop of Super Glue on the junction of the plastic pieces. Warning – that glue grabs quickly, so slide the 2 pieces only enough to start the assembly, then apply the drop of glue and quickly finish sliding them together. I have never had ones prepared like that come apart, and I don't use roll pins. I will say one more thing – use only the genuine APPs. I have seen some knockoffs that do not mate well.
- Greg KC9NRO: Take a hot soldering iron. Wipe the tip with sponge. Run the tip down both side of APP bonding the black and red sides together. Clean soldering iron tip and apply some solder to tip. That's how I roll. Never comes apart
- Mike AI4NS: PVC cement will soften the plastic enough to bond them together. You can also get plastic welding rods, such as [Daindy Plastic Welding Rods](#). Chuck a rod in a Dremel and weld them together. I have made plastic boxes and panels using this method.

- Jack WD4E: Snip the cotton end off a Q-tip, cutting at an angle. Insert into hole made for roll pin, cut off excess, save remainder of Q-tip for next requirement.
- Troy K4JDA: 2.5mm screws work well, stay in, and are easily removable.

I posted these suggestions to [my blog](#) and got a few more great suggestions:

- Tom KB8UUZ: Fat tooth picks also work great. Jam it in, break it off.
- Bruce NONHP: I use MEK (Methyl Ethyl Ketone) replacement to clean my circuit boards after soldering. A single drop of MEK on the junction between the two halves of the PowerPole shell will fuse them. It can be broken with a sharp tap but not accidentally. It will set and dry in seconds and should be applied after the shell pieces are put together.

I think these are all great suggestions. I think that I'm going to try the cotton swab method. While reading them, another thought occurred to me. I haven't tried this yet, but I'm thinking a little drop of hot glue on the roll-pin hole might work, too.

=====

Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and often appears on the ICQPodcast (icqpodcast.com). When he's not thinking up ways to make the lives of the NCVEC question pool committee more difficult, he likes to build stuff and operate CW on the HF bands.



BOARD OF DIRECTORS MEETING MINUTES

Video Conference "Go to Meeting"

June 12, 2020 @ 1800

All board members were present:

President, Brian/AI6US, Vice-President, Greg/KO6TH, Secretary, Michele/WH7QC, Treasurer, Jeff/KM6RGO, Directors, Gerry/WA6E, Nathan/K6NDC, Wayne/W6DT.

Others in attendance:

Clyde/AB4CC, Mike/K6MRP, Herb/KM6JBI, Dennis/WU6X, Orion/AI6JB, Gary/KC3PO, Mike/KK6RXY, Stuart/AK6XR, Jerry/W6GU.

The May minutes were accepted. Greg/KO6TH announced the presentations for the General meeting: Orion's Tec-Ten and "Antenna Modeling".

Board Member Reports:

Treasurer/Membership: Jeff/KM6RGO reported that the membership is coming along and that Brian's "Coffee Break" net is definitely attracting new members!

There were no expenses to speak of and no cash flow. The balance sheet is good still at \$10,192 in the account.

Directors:

Gerry/WA6E had no report.

Nathan/K6NDC reported that the By-laws committee will meet sometime soon and update with what's happening there by July. Many thanks to Gerry for his help with appropriate wording in the By-laws.

Wayne/W6DT had no report.

Repeater (Station Trustee): Clyde/AB4CC reported that the Repeater committee agreed to accept Scott/KK7AIR's donation. The membership should vote according to By-laws and follow the formalities. The club can write a letter in acknowledging Scott for his donation to the SFARC. Scott would like his books to reflect "cash", rather than equipment. Gerry/WA6E moved and Jeff/M6RGO seconded the motion for the club to accept the Repeater committee's recommendation to take the donation with a unanimous vote by the board.

Greeter/Sunshine: Brian reported that Al/N12U is doing well, which is wonderful news. Are there any other updates on members with regards to illness or injury?

Dennis/WU6X reported that Bill Costa had a bad fall with serious injuries. He will let Richard/WA6RWS know of the details for a card to be sent on behalf of the SFARC Club.

Newsletter: Barbara/W6EVA-great newsletter, as always!

Website/Nomination committee: Herb/KM6JBI reported that things are going well. His classes are going well. As to board member nominations, he will talk to Rich/AA6RS to see about how he has handled nominations in the past.

Groups.io/Contest chair: Dennis/WU6X reported that there are now 156 members on Groups.io. The ARRL VHF contest is this weekend.

Membership: Jeff/KM6RGO announced that we have added two more members this week to make 117 on the roster.

VE: Andrew/K6OP and Carl/N6CKV were not present. Jeff/AK6OK is holding test days in the Rocklin warehouse. How do we get our SFARC VE ball rolling again—to start testing again?

Herb/KM6JBI suggested using the Vet's main floor Hall in Auburn. Dennis will setup a closed Groups.io forum for VE communications. Gerry suggested that SFARC present fancy certificates for those passing the Tech, General and Extra tests.

Volunteer events: Mike/K6MRP-there are no volunteer events for the time being due to the COVID-19. He reported that the Mini Maker Faire club has not updated their site since 2019, but the event may still happen in October as originally planned.

Public Information Officer (PIO): Scott/WA6YNE was not present.

Picnic chairs: Roy/WH7DH and Michele/WH7QC reported that the picnic will be held on Saturday, September 19 at the Applegate Park and that we will have BBQ chicken and burgers. Chip, the master cook, will do the honors in that department for the event. Thank you, Chip! It will be supplemented with deli salads and such, rather than potluck this year.

Christmas Party chair: Jim/WA8MPA was not present; however, the party is scheduled for December 12, 2020.

The next club meeting will be either another “Go to Meeting”. A questionnaire may be sent out to the club members for a possible August Club activity in a park where everyone could meet, but in a responsible manner with the COVID-19 still in our midst.

Budget Review: For our August meeting, we will have a budget presentation.

The meeting was adjourned at 6:42 pm. Respectfully submitted by Michele/WH7QC.



GENERAL MEETING MINUTES

Video Conference “Go to Meeting”

June 12, 2020 @ 1930

President Brian/AI6US began early with hellos and meet and greet with folks checking in. Board members were introduced, with all being present. President: Brian/AI6US, Vice-president: Greg/KO6TH, Secretary: Michele/WH7QC, Treasurer: Jeff/KM6RGO, Directors: Gerry/WA6E, Nathan/K6NDC, and Wayne/W6DT.

Guests were introduced and any new licensees were encouraged to get an Elmer.

The May 2020 minutes were accepted as submitted.

There will be a SFARC breakfast at the Auburn Mel’s on Saturday, June 27, 2020 at 9:00 am.

Greg/KO6TH announced this evening’s presentations which will both be given by Orion/AI6JB—a Tec-Ten on the upcoming Field Day and a program on “Antenna Modeling”.

Tec-Ten

ARRL FIELD DAY 2020

By Orion Endres/AI6JB

What is Field Day?

It is an annual event on the last full weekend of June. This year will be Saturday & Sunday, June 27th & 28th from 11:00 am to 11:00 am local time.

--Amateur Radio's Open House--US & Canadian Operating Event.

Teamwork--Bonding time--Public service—It's FUN!!

Who: Everyone is invited to participate: Hams, family, friends, relatives

What: Get on the air!! Use any means necessary! (except cell phones) ☺

When: Starting 11:00 am PDT Saturday, June 27, 2020, through 11:00 am PDT, Sunday, June 28, 2020.

Where: From your home, backyard, local park, mobile, portable, standing on your head

Why: To get out there and have fun! Challenge ourselves to become the best radio operator possible.

This year's Field Day Net will be hosted by Brian/AI6US on the W6EK Repeater which will be open the full 24 hours. There will be a Zoom Room and lots of great prizes!

HELP! All information is on Groups.io Wiki at <https://w6ek.groups.io/g/sfarc/wiki/20755>

There is a Thursday Night Q&A on GoToMeeting after Club 2m Net. (+/-20:00).

Questions? Call/Email Orion/AI6JB at ai6jb@arrl.net.

A Few Other Thoughts

Use "Sierra Foothills ARC" for the Club on your ARRL Field Day Submission

Club vs ARRL Rules: Repeaters, AllStarLink, Echolink, Fusion, etc...All good for Club contacts. Not allowed for ARRL Field Day contacts.

GET ON THE AIR! HAVE LOTS OF FUN!

There will be prizes for such things as: Photo Contest, Social Media Award, Rookie Award, Most Contacts, Most Bands & Modes, Most Field Day Points

PRESENTATION

ANTENNA MODELING

By Orion Endres/AI6JB

WHAT IS ANTENNA MODELING?

Computer software that approximates the performance of RF antennas

ANTENNA MODELING CAN:

- Show you how your antenna will perform
- Optimize the performance of what you have
- Save you money
- Have Fun

WHAT CAN A MODEL DO?

- Plot Vertical & Horizontal Radiation Patterns
- Calculate Maximum Gain
- Direction of Maximum Gain
- 3 db Bandwidth
- 3D Representation of the Radiation Pattern
- Plot SWR & Input Impedance over Frequency Range
- Smith Chart

CAN MODEL VIRTUALLY ANYTHING

- Sample Models are included with Download
- Experiment and have fun

LET'S COMPARE DX VS NVIS

- Per Last Month's NVIS Presentation by N5JEF
- Good DX Dipole Antenna is best at $\frac{1}{2}$ Wavelength above the Ground
- Good NVIS Dipole is best at $\frac{1}{8}$ Wavelength above the Ground
- $\frac{1}{8}$ Wavelength @ 3.5 MHz = +/- 33 ft.

IS HIGHER BETTER?

Yes and No

- Get more gain
- Get more directionality
- At lower take-off angle
- Send power vertical
- More susceptible to fade due to nulls

Reports

By-laws Review: The By-laws review committee will give an update at the July Club meeting.

Repeater committee: Clyde/AB4CC announced that the repeater is still working! He has been trying to get the 2m Wires-X-nodes installed at his home QTH. The 2-meter repeater can be used through AllStarLink, Echolink and Wires-X.

The repeater committee and board recommends that SFARC accept the equipment donation (Yaesu Repeater, FTM-100 and HRI-100) from Scott/KK7AIR, who loaned it for the 6 month test. Carl/N6CKV motioned and Rich/AA6RS seconded the motion to accept the donation of equipment and the club membership voted unanimously to accept the donation.

Al/N6ADT donated a power filter for the Club. Thank you, Al--it is much appreciated!

Thank you, Clyde as always for your assistance in keeping the club communication going!

Questionnaires will go around for club members to offer ideas on the Club meeting together at a park or other suitable place, possibly in August—responsibly of course, during this ongoing COVID-19.

Greeter/Sunshine: Richard/WA6RWS was not present; however, Brian gave an update on Al/N12U, who is home and doing quite well with treatments and has more energy and at times been on nets. What wonderful news!

Dennis announced that Bill Costa/W6VJ recently had a serious fall; however, he is recovering.

VE: Carl/N6CKV announced that there will be VE testing on June 20. Jeff Hilliard/AK6OK is providing this in his Rocklin warehouse. The SFARC will strive to return to our VE testing soon.

Volunteer events: Mike/K6MRP announced that the Cera Enduros are still on for October 3rd & 4th, 2020.

The Mini Make Faire and the Jamboree-On-the-Air are both up in the air as to their happening. The sites for both have not been updated yet.

The Hamfest 2020 is postponed, the MS Walk in Folsom is canceled and the Foresthill Fondo is postponed.

Satellite: Greg/KO6TH gave a brief report.

Website: Herb/KM6JBI was not present.

Groups.io: Dennis/WU6X announced that we have our 157th member just this evening!

Contest chair: Dennis/WU6X reported that ARRL Field Day is happening June 27/28 and to please post pictures.

Membership: Jeff/KM6 RGO reported that membership is up a bit. Again, most of the newbies are coming in due to Brian's dependable, helpful and fun "Coffee Break Net". Thanks, again, Brian, for keeping the net going, and, also to Don/WP6LBJ and Orion/AI6JB for co-hosting as well! You guys are awesome!

ARES: Carl/N6CKV reported that the ARES net is every Sunday evening at 7:30 pm. He also cautioned us all to watch out for the fires and weather winds.

Equipment donations/Library: Jim/WA8MPA was not present, but Brian mentioned that the club has equipment to borrow and library books on loan.

SFARC club Net is every Thursday evening at 7:30 pm.

Elmer Net is the first and third Wednesday evening at 7:30 pm.

Coffee Break Net is every day of the week from 7:30-10:00 am.

The monthly SFARC club breakfast is Saturday, June 27 at 9:00 am at Mel's Diner in Auburn. Please remember that that day is also our Field Day!

The General meeting was adjourned at 9:22 pm. Respectfully submitted by Michele/WH7QC.



SIERRA Foothills AMATEUR RADIO CLUB
P.O. Box 6421, Auburn, CA 95604

2020 MEMBERSHIP APPLICATION

Name: _____ Call: _____ Class: _____ e-mail: _____
Address: _____ City: _____ State: _____ Zip: _____
Associate Name: _____ Call: _____ Class: _____ email: _____
Phone: _____ Cellphone: _____ Application is: (New / Renewal) _____

Dues / Donations:

Membership: yearly* \$22.00 or 20x _____ Name Badge: \$ 10.00/15.00 Yes (special name) _____
Associate: yearly* \$ 7.00 Repeater Donation: \$ _____
Auto Patch Donation: \$ _____ Newsletter Booster: \$ _____
Misc. Donation: \$ _____ Christmas Donation: \$ _____ ARRL member? (Yes/No/Life) _____
TOTAL: \$ _____ Please add \$1 if paying via PayPal

*Prorated dues for NEW Members/Associates Only

July	\$ 20 /6	October	\$ 14/3 + following year	New - - New - New -
August	\$ 18/5	November	\$ 12/2+ following year	Multi-year DISCOUNT Membership
September	\$ 16/4	December	\$ 10/1 + following year	*\$20 per year for 2 or more years (new or renewal)

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Date: _____ Treasurer: _____ Secretary: _____ Roster: _____

Payment: _____ Check Number: _____ Cash: _____ PayPal: _____

Rev. 5-11-2018



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