

# It's a New Year!



P.O. Box 6421 Auburn, CA 95604

January 2021

<http://w6ek.org> [info@w6ek.org](mailto:info@w6ek.org)

## At The Key of SFARC:

### PRESIDENT

Brian Gohl, AI6US  
[AI6US@titaniumsatellite.com](mailto:AI6US@titaniumsatellite.com)

### VICE PRESIDENT

Greg Dolkas, KO6TH  
[ko6th.greg@gmail.com](mailto:ko6th.greg@gmail.com)

### SECRETARY

Michele Bauer, WH7QC  
[mickeybauer2012@gmail.com](mailto:mickeybauer2012@gmail.com)

### TREASURER

Jeff Morgan, KM6RGO  
[jamontrail@gmail.com](mailto:jamontrail@gmail.com)

### DIRECTORS

Gerry Brentnall, WA6E  
Wayne Stilwell, W6DT  
Chip Bautista, KM6MDF

### FIELD DAY CHAIRMAN

*To be filled*

### REPORTERS

Satellites: Greg, KO6TH  
Sunshine: Roy, WH7DH

### 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,  
Online Zoom starts @7:30pm  
Meeting ID: 962 6167 5605

### CLUB BREAKFAST

*On hold until further notice*

### NET CONTROL OPS

Dave Jenkins, WB6RBE  
Orion Endres, AI6JB  
Chip Bautista, KM6MDF

### NEWSLETTER EDITOR

Barbara Anderson, W6EVA  
[anderson51@wavecable.com](mailto:anderson51@wavecable.com)

### WEBMASTER

Herb Garcia, KM6JBI

### STATION TRUSTEE

Clyde Campbell, AB4CC

### VOLUNTEER EXAMINER

Andrew Silvester, K6OP



## Inside this issue

- **President's Message**
- **How to Prevent ESD Damage**

~~~~~

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

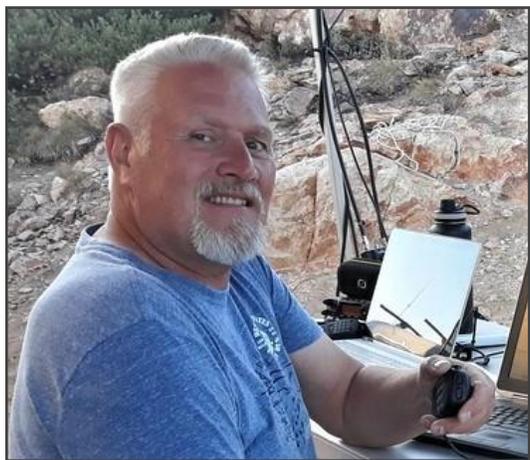
## Calendar of Events

January 8<sup>th</sup> @ 7:30 PM  
**Zoom General Meeting**

January 30<sup>th</sup> & 31<sup>st</sup>  
**Winter Field Day**

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

Sierra Signals is published monthly by the Sierra Foothills Amateur Radio Club for the information of its members and friends, and is distributed via E-mail and USPS mail. Opinions expressed are those of the authors. Newsletter exchanges with other clubs via E-mail are welcomed. Contact the editor to be placed on the E-mailing list. The contents of Sierra Signals are copyrighted by the Sierra Foothills Amateur Radio Club, and all rights are reserved. That said, we will gladly permit republications for non-profit uses of all text material. Photos require the consent of all persons pictured in them, and some of our material is copyrighted by others and published by permission. You'll need to contact them for permission.



## President's Message

*By Brian Gohl – AI6US,  
President*

### Welcome to 2021

Isn't it great to have a fresh new year ahead of us with the promise of the Covid 19 vaccines to allow us the opportunity to return to in-person activities? I am looking forward to breakfasts at Mel's, face to face club meetings, hamfests, Field Day and the fun times providing communications support for activities in our community. While we need to continue meeting on Zoom for a while longer, plans are already being put into motion for summer communication volunteer events and dispersed outdoor meetings. Stay tuned as the situation remains fluid, but hopeful!

### Christmas Party

What a great Christmas Party! A special thanks to the Zoom party organizer Jim, WA8MPA. Jim organized a great team and helped gather some great prizes for the celebration. The Trivia Master Gerry, WA6E challenged us with some super stumper questions and answers that produced many chuckles. The Pit Boss of the Prize Wheel Joe, K6SAT worked magic with editing the party attendee lists on the fly, while running the prize wheel like a casino pro. Doorman and event concierge Orion, AI6JB watched the check-ins and only allowed our esteemed club members into the private event. I appreciate everyone who contributed to the video, showcasing members, families and 2020 event photos. If you haven't had the opportunity to watch the video featuring a tribute to Casey McPartland – W7IB, check out the link below. This is a private video and is not intended to be shared publicly.

[http://w6ek.org/Pub/SFARC Christmas Slide Show 2020.m4v](http://w6ek.org/Pub/SFARC_Christmas_Slide_Show_2020.m4v)

While many prizes and gift certificates were awarded over the course of the evening, the top winners were: 3<sup>rd</sup> place - Clyde, AB4CC with the NanoVNA-F and demo kit. 2<sup>nd</sup> Place - Kenai, KN6LDN won the Yaesu FTM-7250 dual band C4FM radio. 1<sup>st</sup> place - Mark, W2MWK with the Grand Prize of the \$350 HRO gift certificate.

Thanks to everyone who attended our 2020 SFARC Zoom Christmas Party and made this such a fun and memorable event. BTW, the after-party lasted long after 12 midnight!

### Donations to Auburn Interfaith Food Closet

The generosity of members donating to the Auburn Interfaith Food Closet in honor of Sierra Foothills ARC was nothing less than amazing! The total amount donated by SFARC members has totaled more than \$3,200! What a difference you have made for those in need within our community! Thank you!

### **2020 Membership Growth**

Notice all of the new voices on the repeater and faces on Zoom meetings? SFARC membership growth has exploded in 2020 from about 100 members at the beginning of the year to 163 as of December 31<sup>st</sup>! We welcome all of the new members and look forward to getting to know each of you better during upcoming events! If you have any questions or wish to get more involved with club activities, please contact me or any of the board.

### **2021 Membership Renewal**

Thank you to SFARC Treasurer, Jeff, KM6RGO for kicking off the membership 2021 campaign with an email reminder this week. Members may either process their membership online with the new zero fee PayPal payment option or mail in the completed membership form along with a check. Prepay membership for multiple years and save! We appreciate your continued support of the club and hope that you find that Sierra Foothills ARC continues to provide value, a community and education to increase your enjoyment and advancement in the amateur radio hobby.

### **Winter Field Day 2021**

Winter Field Day is coming up in a few weeks during the weekend of Jan. 30/31, 2021. Recent rule changes will allow each participant to individually score and to aggregate towards a total club score. This scoring change allows everyone to operate separately or in small teams, yet contribute towards the Sierra Foothills ARC score, just like we did for the last ARRL Summer Field Day.

The focus of Winter Field Day is on preparedness and flexibility for emergency operation. While you may operate from your regular home station, extra points are given for outdoor and portable operations. Multipliers are awarded based on the number of bands and modes that each station works. This means that for maximum scoring, operate on as many bands as possible and use all three modes (voice, cw and digital). Orion, AI6JB will be giving a Tech Ten on how to participate in WFD 2021 during the upcoming January 8<sup>th</sup> club meeting. Join in the fun for Winter Field Day 2021! Can we score even higher than last year?

### **Member Remembered**

We would like to extend our condolences on the passing of long time SFARC and ARES member Jim Griffith, KI6AZH, The Voice on the Hill. Rest In Peace.

### **Extra Exam Class Starting in February**

Looking to upgrade to Extra Class or just want to learn more about the hobby? Starting February 2<sup>nd</sup>, Orion, AI6JB and other instructors will offer a Zoom based series of classes to prepare you to pass the Extra exam. Class size will be limited. Email Orion at [ai6jb@arrl.net](mailto:ai6jb@arrl.net) as soon as possible to secure a spot.

### **Regional Online VE Exam Team Forming**

Fourteen local VEs are now certified and active with online amateur radio testing teams. All VEs are certified with both ARRL and W5YI and we will soon be forming a regional exam team to offer both online testing and future in-person electronic testing. Currently, successful electronic exam candidates are registered in the FCC database and receiving their call sign and/or upgrades within one business day!

We recently held a successful session for the SFARC General Class candidates. A great experience for local exam candidates to test with local VEs and we can offer guidance for joining local clubs and offer Elmering assistance. If you are an Extra Class licensee and interested in joining our VE team, please contact me at [ai6us@arrl.net](mailto:ai6us@arrl.net).

Wishing you and yours a healthy and adventurous new year!

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

Until then, 73  
Brian Gohl – AI6US  
SFARC President

---

## KB6NU's Ham Radio Blog

### How to Prevent ESD Damage

*By Dan Romanchik, KB6NU*

Here are some tips from Keysight Technologies, one of the leading electronic test equipment companies, on how to prevent ESD from damaging your electronics.

USE A GROUNDED WRIST STRAP whenever you are handling equipment or boards. Using a grounded wrist strap prevents your body from building up charge and causing damage when this built-up charge discharges into your equipment or test boards. Make sure to connect that alligator clip to ground!

USE GROUNDED WORK SURFACES OR MATS for your boards. Do NOT use static generating or insulating materials as a work surface. Non-grounded mats and static generating/insulated materials can inductively charge boards, especially exposed ones. When connecting a charged board to equipment, the board can cause damage by discharging into the equipment's inputs.

KEEP CHARGED MATERIALS AT LEAST 0.3 METERS FROM EXPOSED ASSEMBLIES. This includes plastics, foam, or other materials that can build up charge. Having a charged material near an exposed assembly can inductively charge the assembly. The assembly can then discharge into the equipment's inputs.

**DISCHARGE YOUR CABLES BEFORE CONNECTING THEM TO YOUR EQUIPMENT.** Electrostatic charges can build up on test probes and test leads, so it's important to discharge them before connecting them to your test equipment:

- Ensure your device is off.
- Connect your cable to your device.
- Attach a 50  $\Omega$  shunt to the open end of the cable.
- Remove the shunt and immediately attach your device to your equipment. This prevents the center conductor of your cable from discharging stored charge into your equipment. A charged assembly can charge connected cables.

**USE BOARD STANDOFFS AS NEEDED.** In some situations, you need board standoffs to provide extra insulation for your exposed assemblies. This prevents your grounded mats from making unwanted connections on your board.

**NEVER USE "PINK" PACKING MATERIAL FOR BOARD TRANSPORT OR AS A WORK SURFACE.** While many people think pink packing material is ESD safe, in most cases it easily builds up unwanted charge. Unless continuous, thorough testing is done, treat pink packing materials as charged.

**CAP UNUSED EQUIPMENT INPUTS** to avoid accidental ESD and physical damage. Damage often occurs by accidentally contacting equipment inputs. Capping unused inputs protects them from incidental ESD damage.

**USE ESD-SAFE BAGS WHEN TRANSPORTING BOARDS.** This protects boards from ESD damage while moving between ESD-safe locations.

**DO NOT OVERDRIVE EQUIPMENT INPUTS.** Start your testing at the least sensitive input setting and zoom in on your signal. Additionally, observe the maximum input levels for your specific equipment. The least sensitive setting is the most resilient, so starting there ensures that your inputs are at safe operating levels.

After I posted this to my blog, Dave, N8SBE offered some further tips. He writes:

Grounded heel straps also help reduce static charge. Test them with a floor tester every time you put them on. The floor needs to be somewhat conductive—not metal, that's a safety hazard—so use conductive wax on tiles, or conductive carpet to drain off electrostatic charges.

Keep materials, such as styrofoam cups, that form electrostatic charges easily away from your workspace. A styrofoam cup can generate thousands of volts.

Keep the humidity up in the workspace. That helps to keep static generation down as well.

I like to think that I follow ESD-safe procedures, but there are a couple of things here that I hadn't thought about before. For example, I'd never really thought about discharging test equipment cables before connecting them. I think that's a good tip

To learn more, go to <https://www.keysight.com/find/PreventESD>

=====

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 worrying about electrostatic discharge, he teaches online ham radio classes and operates CW on the HF bands.

## GROUNDING WRIST STRAP



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 -<br>Multi-year DISCOUNT Membership<br>*\$20 per year for 2 or more years (new or renewal) |
| August    | \$ 18/5  | November | \$ 12/2+ following year  |                                                                                                                |
| September | \$ 16/4  | December | \$ 10/1 + following year |                                                                                                                |

**OFFICE USE ONLY: DO NOT WRITE BELOW THIS LINE**

Date: \_\_\_\_\_ Treasurer: \_\_\_\_\_ Secretary: \_\_\_\_\_ Roster: \_\_\_\_\_  
Payment: \_\_\_\_\_ Check Number: \_\_\_\_\_ Cash: \_\_\_\_\_ PayPal: \_\_\_\_\_

Rev. 5-11-2018




**MISSION CONTROL**  
**Dennis H. Gregory**  
Instructor/Technician

**Computer Repairs and Support**  
Reasonable rates, free consultation  
Business License #114527

Phone: 530-305-0180 Auburn, CA  
Email: yourmissioncontrol@att.net  
Web: www.yourmissioncontrol.com



**Macintosh Computer Repair**

2905 58th Street  
Sacramento, CA 95817

916 862-6802  
support@carlschultz.biz

**Carl Schultz**  
Hardware, Software, Network, Tutoring

**SACRAMENTO RADIO EXPO**



**Doug Wilner**  
916.769.5016

4343 Marconi Ave. Ste. #2  
Sacramento, CA 95821

sacramentoradioexpo.com

**Batteries + Bulbs**

**Ryan Tollefson**  
District Manager

8025 Greenback Lane • Citrus Heights, CA 95610  
P 916 -722- 8800 • C 916-775- 3030 • F 916-722- 2489  
rtollefson@batteriesplus.net • www.BatteriesPlus.com

Independently owned and operated Franchise.