



# RADIO-ACTIVE!

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## Lets have some fun at the membership meeting!

Roberta, AJ6KN, Acting ARES DEC, ARES Net Coordinator



Our next ARES membership meeting is scheduled for this coming Wednesday, **February 19 at 1900**. It will be in person at the Santa Cruz County Emergency Operations Center (EOC), at 5200 Soquel Ave, Chanticleer Entrance. There will be someone monitoring and letting people in at the door. But **MOST IMPORTANT** is that you come and participate in what will surely be a super fun exercise!

▶ Bring your HT (see cheat sheet links below available for Yaesu FT60 and Baofeng UV5R), SPARE BATTERY, and your own cheat sheet or manual (especially if it's a different radio)

- ▶ We will have stations set up to practice programming your HT (similar to last month) but with activities associated such as counting and reporting M&M bags (and then eating them, if you like!), playing Tic-Tac-Toe with a net control station, sending and receiving instructions on constructing a simple LEGOS block, and more!
- ▶ One exercise is to connect your HT with an external antenna - we will have common connectors, but bring your own if you wish
- ▶ Links are below for the documents we will use and what the station signs look like; you can use the ICS 205 to practice ahead of time, if you wish.
  - Instructions for each exercise: <https://tinyurl.com/yujfbv5f>
  - Course Instructions/Signs for each exercise: <https://tinyurl.com/mw85yu6p>
  - Tic-Tac-Toe: <https://tinyurl.com/3yajvjbb>
  - ICS 205: <https://tinyurl.com/mwww62mf>
  - Baofeng Simple Programming doc: <https://tinyurl.com/4mz5xn5c>
  - Yaesu Simple Programming doc: <https://tinyurl.com/2srcvu59>

Please come whether you prepare ahead or not - there will be helpers and materials available.

We look forward to a record attendance for this fun indoor meeting & exercise!

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### New Ham Radio Technician License Study Group!

Do you have friends envious of your ability to talk on the radio and get information and want to learn about Ham radio? If so, we have a class for them to review the test study materials and prepare to take the exam. The study group begins Thursday, April 17th from 7:00 to 9:00pm and runs for 6 weeks at the Emergency Operations Center. Encourage your friends to sign-up soon.

Sign-up link: <https://tinyurl.com/35avzt57>

Sign-up QR code:



## Operator's spotlight—Martin, KN6GWQ



Martin, KN6QWP is a unique operator because of his perspective on life he has gained from the diverse places he has lived and the people he has met. This includes living in ten locations in Washington State, Nigeria and California. Currently residing in Watsonville, Martin is married and has two children. One of those children is a Cal Poly SLO aerospace grad student who also is a ham radio operator, KO6AAO.

Martin obtained his Bachelor of Science in Computer Engineering from UCSC. In the early 1990's he founded a family-run business called Vena Engineering in the Silicon Valley. It was a small company just employing 10 to 15 people, for the many roles in sales, marketing, and mechanical, electrical, and software engineers. The company specialized in manufacturing test equipment for the disk drive industry, integrating high-precision motion control, signal processing, and environmental chambers into their test systems. After several years, the company was relocated to Watsonville, where it operated until 2015. Here is [an article](#) that was posted in the Pajaronian newspaper in 2004 that describes a bit more about the company in Watsonville. At the close of the business, Martin was able to retire.

Sailing is one of Martin's beloved hobbies. Last year's sailing trip to the Catalina Islands is a favorite family memory. See [The Benefits of HAM Radio in Marine Coastal Voyages](#) Radio-Active article from last September for some details of that travel.

Another hobby of Martin's is off-roading. Off-roading is the act of driving or riding in a vehicle on unpaved surfaces such as sand, dirt, gravel, riverbeds, mud, snow, rocks, or other natural terrain. It was the off-roading in the desert without a cell signal and a desire to have communications that drove Martin to explore ham radio and get his technician license in 2020. And then with his background in programming he was able to develop an APRS application for Android phones (Ham Tracks) for offline use. It allows tracking of a person or group using a ham radio, Digirig (a sound card), Raspberry Pi Zero W with direwolf (computer) and an android phone with the Ham Tracks application. It is an impressive and capable setup in a very small package.

Recently, Martin has been working on building his own repeater and getting it on the air. It is found at 147.0900 + and PL of 94.8 and on channel 66 on the ARES frequency list. It supports FM, AllStar, Echolink and Fusion. Also he is one the support crew for the repeaters at K6BJ. The next project is to work on the integration of Allstar and Starlink as a mobile gateway. Continued on page 5.

### Equipment available to loan

Santa Cruz Communications Support have made **FOUR** kits available for loaning to allow ham operators participate in a deployment or to trial a different setup. Two kits are for a vehicle deployment and includes mobile dual-band radio, mag mount antenna, battery and kneeboard. The other two kits are for stationary outdoor deployments and includes the vehicle kit with additional supplies of a tripod antenna, lighting, and pop-up. Contact either John, N6QX, Roberta, AJ6KN, Stephen, KM6NEP or Gary, K6PDL for arrainging for check out.

## Report your volunteer hours!

The reported volunteer hours for January was 553 hours. Please remember to enter your hours on the form on <https://xczcomm.com/index.php/hours-reporting/>

Reporting the time you spend on ARES and ham radio activities reminds county public safety managers that we're around and ready to serve in time of need.

## How long will my battery last?

Have you wondered how long your battery attached to your radio would last based on the voltage that is displayed?

Here is a voltage/percentage chart resource that shows the relationship between the voltage of a battery and its state of charge, expressed as a percentage.

This chart is valuable because it gives you a quick visual reference to understand the battery's remaining charge and can plan accordingly.

Percentage (SOC)	1 Cell	12V	24V	48V
100% Charging	3.65	14.6	29.2	58.4
100% Rest	3.40	13.6	27.2	54.4
90%	3.35	13.4	26.8	53.6
80%	3.32	13.3	26.6	53.1
70%	3.30	13.2	26.4	52.8
60%	3.27	13.1	26.1	52.3
50%	3.26	13.0	26.1	52.2
40%	3.25	13.0	26.0	52.0
30%	3.22	12.9	25.8	51.5
20%	3.20	12.8	25.6	51.2
10%	3.00	12.0	24.0	48.0
0%	2.50	10.0	20.0	40.0

Here's what you might want to interpret:

- ▶ High Voltage, Near 100% Charge: This is often around 3.40+ volts for a 1 cell battery.
- ▶ Medium Voltage, Moderate Charge: For 1 cell batteries, a voltage of around 3.26-3.3 volts might indicate the battery is about 50-70% charged.
- ▶ Low Voltage, Low Charge: For 1 cell batteries, a voltage around 3.0-3.2 volts might mean the battery is about 10-20% charged.
- ▶ Very Low Voltage, Almost Depleted: At the lowest end of the voltage range, the battery is nearly depleted. Voltages below 3.0 volts can indicate that the battery is almost empty and should be recharged soon.

## Resources

- Website: <https://xczcomm.com/>
- Reporting volunteer hours: <https://xczcomm.com/index.php/hours-reporting/>
- Upcoming events: <https://xczcomm.com/index.php/calendar-of-events/>
- Facebook page: <https://www.facebook.com/ARES-of-Santa-Cruz-County-Ca-296232310799866>
- Facebook group: <https://www.facebook.com/groups/431308973875528>
- PIO Articles: <https://arrlsantaclaravalley.org/news/> or <https://xczcomm.com/index.php/news/>
- X CZ Comm You Tube: <https://www.youtube.com/channel/UCHZH8TUSgh4SqHTPXSWolPA>
- Submitting deployment documents: **send in PDF form to** [EOC.ARES@santacruzca.gov](mailto:EOC.ARES@santacruzca.gov)
- Submitting personal information such as DSW application, personal data update, education certificates: email [K6PDL@ARRL.net](mailto:K6PDL@ARRL.net), and [EOC.ARES@santacruzca.gov](mailto:EOC.ARES@santacruzca.gov)

## Santa Cruz County ARES Purpose

- The Amateur Radio Emergency Service (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment with their local ARES leadership for communications duty in the public service when disaster strikes
- We are not fire fighters or police or sheriff's officers. We are volunteers who care about our communities by using our emergency communication skills.
- Before volunteering in an emergency we first take care of ourselves, our family, and our home.
- We value every member's contributions, irrespective of license class, years of experience, or the price tag of equipment.

## Ham Radio's Motto

"When all else fails – ham radio works". That is because, when all the normal communication systems stop working, Ham Radio is still in operation, helping people, conveying messages, and sometimes, even saving lives.

## Found on the Web

Allison, KM6RMN, Public Information Officer

This month features a quick review of two interesting podcasts. One can be fetched from the web *and* from your local repeater. The other is a podcast I've highlighted before, but it now has a spin-off worth looking at.



### ARRL Audio News

ARRL Audio News is a summary of the week's top news stories in the world of amateur radio, along with interviews and other features. Each edition of ARRL Audio News runs between 10 and 15 minutes, covering important national policy developments and other topics that affect amateur radio operations.

You don't have to be an ARRL member to access this podcast. In fact, you can listen to it on our favorite local club repeater, K6BJ, just by tuning in at the right time.

#### Find ARRL Audio News here:

<https://blubrry.com/arrlaudionews/>  
K6BJ repeater, 146.79 MHz, Fridays at 12:30 pm

List of other repeaters scheduled: <https://www.arrl.org/arrl-audio-news>



### On The Air podcast

*On The Air* podcast is a companion to the monthly *On the Air* magazine published by ARRL. I covered it two years ago. Recently, there was a new development that has brought it back to my attention. Specifically, the December episode announced an opportunity for ARRL members to listen to a new monthly livestream called *On the Air Live* through the ARRL learning center. The free monthly livestreams promote different educational topics for beginning and intermediate ham listeners. You must be an ARRL member to participate, and register beforehand. If you miss the livestreams, replays can be found on the ARRL learning site.

February's *On the Air Live* covers the use of handheld radios, streaming on February 25 at 5:00 pm PST. Register at the URL listed below.

#### On The Air Live: Part of the ARRL learning site:

<https://learn.arrl.org/>

#### On The Air podcast:

[www.blubrry.com/arrlontheair](http://www.blubrry.com/arrlontheair)  
<https://podcasts.apple.com/us/podcast/on-the-air>

#### December episode of On the Air:

<https://blubrry.com/arrlontheair/139659758/learn-even-more-with-on-the-air-live/>  
<https://podcasts.apple.com/us/podcast/learn-even-more-with-on-the-air-live/id1494508201?i=1000680185859>

If you know a cool website, podcast, YouTube series, phone app or online tool, send me a heads-up at [KM6RMN@SLVARES.org](mailto:KM6RMN@SLVARES.org). I'll check it out and pass it on in a future *Found On The Web* article.

## Winter Field Day Recap

Winter Field day, sponsored by the Santa Cruz County Amateur Radio and San Lorenzo Valley Radio club occurred from January 25th 0800 to 26th 1400 at the Mounted Posse House, Ocean Street Extension. There was something for everyone with stations for CW, Digital, Phone, and FM. It was very well attended. A montage of pictures of the event can be found [here](#).

## Operator's spotlight—continued



Typical of many operators, Martin is not low on equipment. He owns a Yaesu FTM-400, FTM-500, FT5DR and VX-6, along with Kenwood TM-V71A.

Martin is wanting to encourage ham operators to start using the repeaters more often for ragchew. So much can be learned simply by using the radio daily and engaging in conversations with other hams.

Not only does it improve technical skills and operating confidence, but it also strengthens the amateur radio community by keeping repeaters active.

The many facets of Martin were demonstrated at Winter Field Day. He greeted and engaged many visitors to the site offerings. This included many of UCSC students/hams. He also showed off his culinary skills and provided a meal.

## Org. Positions

- DEC  
John / N6QX, jfgerhardt@gmail.com
- Assistant DEC  
Gary / K6PDL, K6PDL@arrl.net
- Assistant DEC and Deputy EC  
Karen / KM6SV, KM6SV@slvares.org
- Operations and Events  
Dan / N6RJX, N6RJX@slvares.org
- Webmaster  
Ed / N6EMA
- Safety Officer  
Stephen / KM6NEP, KM6NEP@slvares.org
- Public Information officer  
Allison / KM6RMN, KM6RMN@slvares.org
- Net Manager  
Roberta / AJ6KN, AJ6KN@slvares.org
- AEC-Education Coordinator-  
Bill / AJ6CQ, wtyler@gmail.com
- AEC-Logistics  
{temp vacant}
- AEC- Meeting Trainer  
Jim / N6EWP, N6EWP@arrl.net
- AEC-MRC Liaison  
John / KN6DCA, drjohnrx54@gmail.com
- AEC-New Member Liaison  
Bob / KO6XX, KO6XX@slvares.org
- AEC-Packet Radio /Digital  
Sebastian / KK6FBF, Sebastian@steinhauer.info  
Ryan / KI6UAP, KI6UAP@gmail.com
- AEC-Photographer  
Lisa / KN6IAB, KN6IAB@slvares.org
- AEC-Scribe  
JoMarie / KM6URE, KM6URE@slvares.org

## 2025 SCC ARES Events

Date	Event	Approx. or confirmed date?	Description
May 18, 2025	Strawberry Fields Forever Bike Ride	Approximate	Strawberry Fields Forever is an annual benefit bike ride through some of the most beautiful regions of Santa Cruz County. ARES provides comms between rest stops and SAG vehicles.
July 4, 2025	Aptos 4th of July Parade	Approximate	We provide monitoring of the public to provide information to the Sheriffs
July 14-19, 2025 (est)	Santa Cruz Regional Active Shooter and Casualty Care Response Training	Approximate	This event is sponsored by the Santa Cruz County Sheriff's department and provides first responder training for an active shooter. ARES along with CERT provides perimeter monitoring in maintaining a closed event location.
8/17/2025 (est)	Race through the Redwoods	Approximate	Race through the Redwoods is a 10K foot race that starts and finishes at Roaring Camp but the majority traverses the redwoods in Henry Cowell Redwoods State Park. It is promoted by the Felton Business and Community Association. ARES provides monitoring of runners positions and safety for the organizers.
9/21/2025 (est)	Santa Cruz Triathlon	Approximate	Santa Cruz Triathlon is a non-profit that donates proceeds to various athletic programs in the county. ARES provides monitoring of participants positions and safety for the organizers.
October 31, 2025 (est) 1530 - 2000	Halloween Trunk or Treat 5200 Soquel Ave, Santa Cruz	Approximate	Trunk of Treat is organized by the Santa Cruz Sheriffs. ARES provides monitoring of participants along with closed road staffing and shuttle parking location.

## 2025 Other Radio Events for Ham Operator Participation

Date	Event	Approx. or confirmed date?	Description
Each Wednesday 10am - 12pm	Loft Coffee 2701 Cabrillo College Dr, Aptos		Gathering of general interest, sharing of ideas, getting some elmer help
2nd and 4th Saturdays of the month 10am	C.A.K.E. @ Loft Coffee 2701 Cabrillo College Dr, Aptos		C.A.K.E. = Coffee/Caffeine Assisted Knowledge Exchange. Gathering of general interest, sharing of ideas, getting some elmer help
1st Saturday of each month [3/1/25, 4/5/2025, 5/3/25, 6/7/25, 7/5/25, 8/2/25, 9/6/25, 10/4/25, 11/1/25, 12/6/25] 10am - 2pm	POTA	Approximate	Play radio at a scenic park near by. Not formal and any mode can be used. Emails sent prior to event to indicate the specific park. Prior parks have been Seacliff State Park and Wilder State Park
April 10-13, 2025	Sea Otter Classic	Confirmed	World premiere Cycling festival. Ham radio operators provide communications from the Fort Ord National Monument backcountry. More information: <a href="https://sbcara.org/otter/">https://sbcara.org/otter/</a>
April 27, 2025	Big Sur International Marathon	Confirmed	Point to Point foot race/run along Highway 1 from Big Sur to Carmel. Ham radio operators provide communications along the route.
June 28-29, 2025	ARRL Field Day	Confirmed	A national activity promoted by ARRL to share all the various aspects of the Ham Radio. Often hosted by both radio clubs of the Santa Cruz County. More information to be shared at a later date.