



RADIO-ACTIVE!

May 16 2022, Volume 1, Issue 2



And the Survey says...



Last month we launched a new approach to our monthly meeting. We shortened the meeting to sixty minutes, moved the education to be earlier in the meeting, included a guest speaker and introduced this newsletter. After the meeting we sent out a survey asking for input from the membership regarding the adjustments. Results showed some divergence in desires for future meetings.

After further discussion at the leadership business meeting (first Tuesday of each month at 1930, all members welcome to observe), it was decided future meetings will last 90 minutes or less, follow the general format of April’s meeting, and include outside speakers whenever possible. The newsletter will continue and all AECs are asked to submit reports, however brief. We’ll encourage questions about newsletter items in the meeting.

Our next meeting, May 18th at 1900 will be on Zoom. In **June** we will trial a **hybrid meeting**, on Wednesday June 15th at 1900 in-person at the county Emergency Operations Center (EOC, 5200 Soquel Avenue, 2nd floor, enter through door on Chanticleer) with Zoom for remote attendees. Bob KO6XX, and Dan N6RJK, will arrange video conference equipment. As with all in-person ARES events, the Covid Policy will apply to the in person part of the meeting (<https://xczcomm.com/index.php/policies/>). We hope that everyone will attend in whatever format is most comfortable and convenient for them.



After this meeting, we will be seeking feedback on how it goes from both online and in-person attendees. Then, at the following leadership business meeting (Tuesday July 5th, 7:30pm on Zoom) we will discuss how the hybrid membership meeting was received and what the path forward for future meetings should be.

Along with the return in June to holding meetings (partially) in-person, we will be giving a try to restarting our pre-meeting dinner. We are pleased to announce that our new dinner location will be El Jardin (www.eljardinrestaurant.net, 655 Capitola Rd), outdoors, on their lovely covered patio. El Jardin is about a 5 minute drive from the EOC. Soft-RSVP information will come out about a week before the meeting so that we can have an approximate headcount for the venue. The location has offered to try to accommodate us with separate checks.

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Upcoming events

- **June 22—29, 2022:**
Perimeter patrol for the Active Shooter & Casualty Response Training for First Responders event.
Great inter-agency activity using MURs radio.
Sign-up: <https://www.signupgenius.com/go/10C0D45ADA62FA7F4C61-perimeter>

Santa Cruz County ARES Volunteers in ACTION



John/ N6QX along marathon route

Events Save the Dates

- June 25 11am —26 11am, 2022: Field Day in Bonny Doon
- Monday, July 4, 2022: Aptos Parade Crowd Monitoring
- Saturday, July 9, 2022: Fireworks Horse Endurance Ride
- Saturday, July 23, 2022: Mountain Challenge Bike Race
- September 14—18, 2022: Santa Cruz County Fair
- Sunday, September 25, 2022: Santa Cruz Triathlon

Three Santa Cruz ARES hams volunteered as radio operators supporting the Big Sur International Marathon. *John/N6QX, Becky/KI6TKB, and Scott/KE6QZJ*, reported for final briefing as instructed at 0400, Sunday, April 24, in Carmel, then deployed to assigned positions by 0500, well in advance of the event's 0630 starting gun.

Much of the marathon's 26.2 mile course lacks coverage from cell phones and police or fire radios, so the event depended heavily on coverage from 32 amateur radio operators who worked closely with race officials, medical, techs and public safety officers. Ham operators staffed 13 aid stations, 9 vehicles, and event control points.

Over 3,000 runners competed on the remote 26.2 mile course. *Jeff/KG6UYZ, Joe/*

KG6NRI, and others spent weeks planning and installing multiple special repeaters which allowed two separate nets to operate over the entire course. Operations continued smoothly despite a widespread power outage in the Carmel area at the start of the race.



Marathon runners pass Aid Station 4 at mile 10.4

Test your knowledge

(question/s come from one of the Ham radio class exams; answers on page 7)

1. Which sideband is most commonly used for voice communications on frequencies of 14 MHz or higher?
 - A. Upper Side Band (USB)
 - B. Double Side Band (DSB)
 - C. Vestigial Side Band (VSB)
 - D. Lower Side Band (LSB)
2. Which mode is normally used when sending a Radio Teletype (RTTY) signal via Audio frequency-shift keying (AFSK) with a Single Side Band (SSB) transmitter?
 - A. Lower Side Band (LSB)
 - B. Upper Side Band (USB)
 - C. Morse Code (CW)
 - D. Double Side Band (DSB)

Santa Cruz County ARES Volunteers in **ACTION**—continued

Many ARES volunteers participated in the North Rodeo Gulch Firewise event at the Locatelli Ranch on the brightly sunny and warm Saturday of April 23rd. *John N6QX* shared the exciting and rewarding aspects of Ham radio and why a communication plan is key in emergency preparedness. There were many other agencies represented at the event such as Community Emergency Response Teams (CERT), Central Fire District, OR3, Santa Cruz Communications Support, and Santa Cruz County Sheriffs.



John N6QX showing off the goods



David N6DTA showing off go-bags



Golden Eagle Training and Exercise

The Bay Area Urban Areas Security Initiative, a consortium of local governments and agencies, holds their annual exercise this Thursday, May 19. A few members of Santa Cruz County ARES will participate. On Thursday morning, exercise runners will be texting information about simulated events to four hams who will radio the information to the County Emergency Operations Center (EOC). The exercise will test how that information is handled within the EOC and among partner agencies. Participating from the field are *Bert KG6MBA*, *John NS6K*, *Roberta AJ6KN*, and *Dan N6RJX*. *Karen KM6SV*, *Gary K6PDL*, and *Stephen KM6NEP*, will be at the EOC.



Santa Cruz County ARES Volunteers in ACTION—continued

On Sunday, May 15th approximately 20 ARES members volunteered to support the Strawberry Fields Forever Bike ride sponsored by the Cyclists for Cultural Exchange. Cyclists for Cultural Exchange was established in 2004 with the express purpose of furthering peace and international understanding through exchanges between people with a common interest in cycling. There are 3 routes (30 miles, 10 km and 100



Royal Oaks Rest Stop—A Sea of Bikes

mile) that traverse areas of South Santa Cruz and North Monterey counties. There were 4 rest stops, 7 Support and Gear (SAG) wagons (5 run by solo Ham operators) and the start/finish post staffed by Ham radio operators. A glorious warm day for approximately 1200 participant riders. There were the standard road or mountain bikes. Also there were some unique ones—tandem bikes, electric and elliptical.



A truck full of radio equipment



Elliptical Bikes—No seats!



Jim KN6NCG's SAG Wagon



Gary, K6PDL at Burrell Fire Station Rest Stop

Strawberry Fields Bike Ride Appreciation

Chad, the SAG director stated: "We certainly could not do this without you all helping us".



Bill AJ6CQ at Royal Oaks Rest Stop



Bike Mechanic on standby

Reminders

- AECs submit articles for newsletter by the Sunday before the meeting to KM6URE@slvares.org
- Submit your photographs to Photographer Lisa KN6IAB, KN6IAB@slvares.org and PIO Allison KM6RMN, KM6RMN@slvares.org
- Net Control sign-ups will be taken during the monthly meeting. Everyone is encouraged to take this on this role.



Calling all party planners

If anyone is interested in helping plan the next party in October please contact Lisa , KN6IAB, at KN6IAB@slvares.org

Disclaimers

This newsletter is made of news items provided by many of the Leadership and AECs of the ARES membership. Clarifications can be asked at the monthly ARES meeting.

EC Bob's Thoughts

Hi everyone! First off, I want to thank each and every one of you for your talents and volunteerism. After all, ham radio is a hobby, not a job. We are amateurs, but we are as professional as we can be. Those of us who know me, I can be VERY serious, but also inject humor when appropriate. In my book, it is always helpful to have a good sense of humor during stressful times. :-)

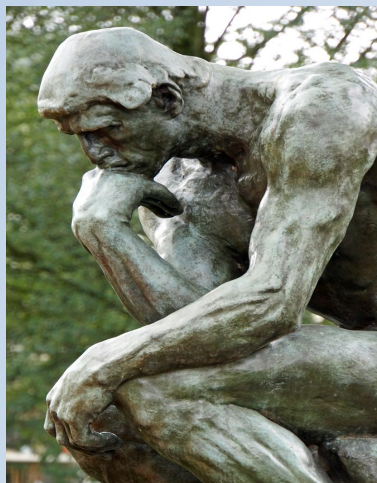
We had Strawberry Fields this last Sunday, and I hope everyone who participated had a good time. I would really like to hear how your experience was! Please let me know.

I visited *Jim WO6BZ* up in Bonny Doon where the W6JWS repeater site is. He is very kind to accommodate the repeater and put it in a building safe from the outside elements. It looks like all the parts to extend the height of the tower and increase the antenna gain are there except for a mast to mount the 4 bay folded dipole antennas. Jim will be getting the aircraft aluminum 2" mast. We need to use aluminum since a steel mast would weigh 200+ pounds.

We will be having the antenna erection party on June 11th in the morning at Jim's house. Anyone who is willing to help, please let me know.

We need our wonderful Assistant Emergency Coordinators (AECs) to please try to provide an article for the monthly newsletter by the Sunday before the meeting. I am sure the membership would really like to know what you are thinking as well. You are very important to us, and we need you. I am setting an example by writing my report as well. Just put in what you are thinking about, or have done for our group.

My projects—wow, I have too many



irons in the fire as usual.

Working on a Raspberry Pi packet station. I finally got all the parts to put it together, I just need to build the power and interface cables and then configure the system.

Still working on the headset cable adapters for the FT60. I really need to get that completed. It has been really hard when I am putting in 10-hour days at work.

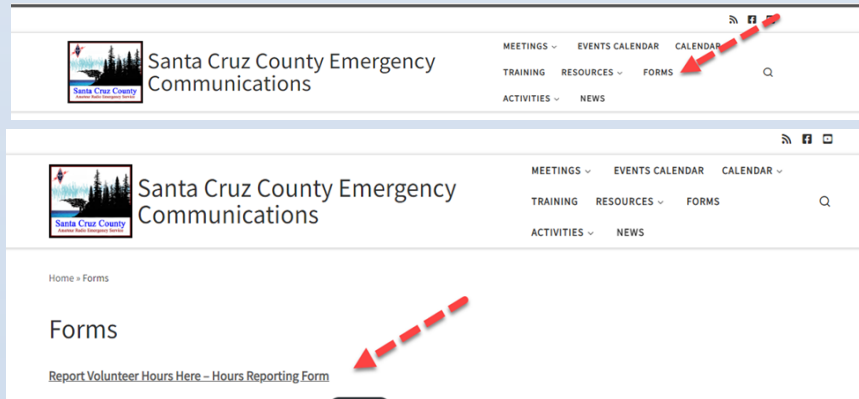
New project for me I have been asking for a video team for well over a year now, and no one has stepped up. Guess it is me that has to do this until we have a volunteer. I video recorded my visit with Jim at the W6JWS site last week, and will be putting that together. Looks like I have the blessing of the powers that be that I can post my videos on YouTube at our X CZ COMM channel. Woot!! I have a lot of ideas on what to video, and currently learning a video editor. I think this will be huge in people getting to know us and how wonderful our group is. The videos are really not for our membership, but a showcase for the general public in our county, state, etc.

Ok, that does it for now. Hope to see ya'all soon!!

73, Bob KO6XX

Hours Corner

There were **904.5** hours volunteered by ARES members learning and practicing radio communications in the month of April. Please remember to enter your hours on the form on the xczcomm.com



OR3 Staff Attrition

The two county staff members we work most closely with at the Office of Response, Recovery, and Resilience (OR3), which operates the Emergency Operations Center (EOC,) left their positions at the end of April. David Reid, the OR3 Director, is covering while replacements are sought.

SHARES Grant Award

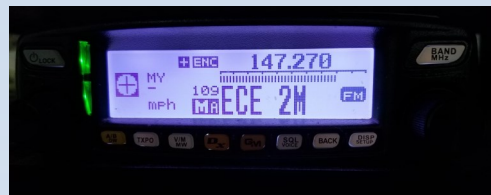
The Santa Cruz County EOC has received a \$59,000 grant from the California Office of Emergency Services for HF radio equipment. Most of the funds will go to purchase equipment supporting the Department of Defense's non-ham SHARES HF radio system, but \$12,000 is allocated for additional HF ham gear. We'll use this to increase the capabilities and reliability of the W6XCZ ham station.



COM2 Van Update

Still awaiting OR3 agreement to fund routine maintenance.

WB6ECE 2m Temporary PL Change



Due apparently to some interference being experienced on the old PL, the WB6ECE 2m (Ch 109) repeater has temporarily changed its PL to 110.9. Since this change is expected to be temporary, the ARES frequency list will not be updated at this time. Feel free to either program another channel with the current PL or temporarily update your radio's programming for Ch 109.

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://arlsantaclaravalley.org/news/or>
<https://xczcomm.com/index.php/news/>
- XCZ Comm You Tube: <https://www.youtube.com/channel/UCHZH8TUSgh4SqHTPXSwolPA>
- Submitting deployment documents: **send in PDF form to** EOC.ARES@santacruzcounty.us and your appropriate EC (Bob: KO6XX@slvares.org or Mike: ac6e@hotmail.com)
- Submitting personal information such as DSW application, personal data update, education certificates: email K6PDL@ARRL.net, KM6SV@SLVARES.org, and EOC.ARES@santacruzcounty.us,

Party Recap!

Thank you to our party planning crew—Karen KM6SV, Lisa KN6IAB, Roxy KN6MLM and Nana KT6G



"Awesome job by the party committee. That was a fun time!" John KN6DCA



"What I really enjoyed was the enthusiasm everyone had for all different aspects of amateur radio. I wished I could of talked to everyone, but it was hard to pull away from someone talking so passionately about their endeavors." Jim KN6NCG



"...Had fun meeting many of you and joining this fabulous group!" Susan K6SUS



"...Everything was really lovely. And, I was even able to hear someone from Florida on Don's station. Sending a big thanks to everyone for making the afternoon so special and memorable." Susan KN6TBQ



"I, too, wanted to thank the organizers of the party on Sunday. It was great to finally meet folks behind the call signs! Food, drinks, music, cookies were all good, and the Get On the Air station was a great idea. Thanks for putting it all together!" Eric KC6EJS



Party Recap—More!



“I wish to commend the ARES group for have a very nice social at the Woodhouse brewery. The band was playing, nice cars were on display, I was able to talk with all the new hams that I haven't met before.” Craig N6SBN



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
Nate / KM6THA, KM6THA@gmail.com
- Administration
Dawn / KM6RME, KM6RME@slvares.org
- Safety Officer
Stephen / KM6NEP, KM6NEP@slvares.org
- Public Information officer
Allison / KM6RMN, KM6RMN@slvares.org
- Net Manager
Roberta / AJ6KN, AJ6KN@slvares.org
- EC Loma Prieta
vacant
- EC Coastal and SLV
Bob / KO6XX, KO6XX@slvares.org
- AEC-Antenna Specialist
Neil / KN6JOI, KN6JOI@slvares.org
- AEC-CERT Liaison
Liz / W6LTS, W6LTS@slvares.org
- AEC-Coastal
vacant
- AEC-Education Coordinator
Bill / AJ6CQ, wtyler@gmail.com
- AEC-Logistics
Mikail / KK6NNB, KK6NNB@slvares.org
- AEC- Meeting Trainer
Jim / N6EWP, N6EWP@arrl.net
- AEC-MRC Liaison
John / KN6DCA, drjohnrx54@gmail.com
- AEC-Net Trainer
Kathy / KE6VTY, KE6VTY@slvares.org
- AEC-New Member Liaison
Alex / AJ6QY, AJ6QY@slvares.org
- AEC-Packet Radio /Digital
Sebastian / KK6FBF, Sebastian@steinhauer.info
Ryan / K16UAP, K16UAP@gmail.com
- AEC-Photographer
Lisa / KN6IAB, KN6IAB@slvares.org
- AEC-Scribe
JoMarie / KM6URE, KM6URE@slvares.org
- AEC-SLV Safety Officer
Tom / KK6NMZ, KK6NMZ@slvares.org
- AEC-SLVEN Liaison
vacant
- AEC-Video Production Team
vacant

ASK AN ELMER



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WHAT IS APRS?

APRS stands for **A**utomatic **P**acket **R**eporting **S**ystem. It is a digital mode that supports the automatic periodic broadcasting of information. It is primarily used for automatically reporting the GPS location of a station at a periodic interval and for periodically reporting weather conditions at a weather station. It can also be used to exchange short text messages as well as list relevant information about a station such as what voice frequency that station is monitoring. More information can be found at www.aprs.org and a great resource mapping APRS stations can be found at aprs.fi.

HOW IS APRS USEFUL AT EVENTS?

APRS is used at several ARES events primarily for its ability to track GPS locations of stations. For example, at this year's Strawberry Fields Forever bike event, the ARES Support and Gear (SAG) drivers ran APRS. This allowed net control to monitor where in the county the SAG drivers each were, so that if one needed to be dispatched to pick up a bike rider, the closest SAG could easily be located and asked to respond. At other events, APRS can be used to track the location of a drag rider so that race personnel can monitor how the race is progressing.

HOW IS APRS USEFUL IN EMERGENCIES?

Again, the most useful APRS capability in emergencies is the GPS reporting capability. One use case that we are very interested in is being able to track Equine Evac units as they are evacuating animals or performing feeding in place duties within evacuated areas. This allows net control to monitor unit locations so that if one gets into trouble or stops responding search and rescue can easily be dispatched to their last known location.

I'D LIKE TO SET UP AN APRS STATION, HOW CAN I GET HELP DOING SO AND HOW MUCH WILL IT COST ME?

It is not expensive or difficult to set up an APRS station. Many of us in ARES have an APRS setup that consists of an old (no service needed) cell phone and a Baofeng HT, though there are more sophisticated station setups that can also be done. If you want guidance on setting up an APRS station, contact the Digital AEC, *Sebastian, KK6FBF* (kk6fbf@slvares.org) and he will assist you in finding an APRS Elmer.



Test your knowledge from page 3 Answers: Question 1—The correct answer is A. The upper sideband is the most commonly used for voice communications on frequencies of 14 MHz or higher. Question 2—The correct answer is A. The LSB mode is normally used when sending an RTTY signal via AFSK with an SSB transmitter.

Santa Cruz County ARES Purpose

- We serve the public, not our egos and the best service we can render in a truly major event. To provide and distribute a corps of trained operators into the right places of the scene in that first, critical 48 hours (sometimes weeks).
- We are not Fire personnel, Police Officers, Sheriff's Officers, or any other authority. We are volunteers who care about our communities by using our emergency communication skills.
- Before volunteering we first take care of ourselves, immediate family, friends, and some of our relatives.
- We value the contributions that everyone makes, irrespective of license class, years of experience, or the price tag of your radio.

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.

Safety First



Figure 1—KM6NEP at SC triathlon

RF Exposure—Stephen KM6NEP

For RF Exposure safety, there are recommended distances to maintain from your radio antenna.

Using the ARRL RF Calculator, my calculations are based on the radio operator performing Net Control duties, transmitting 5 minutes every 10 minutes.

As a net participant, these distances would be shorter, but for consistency in all situations, it is best to practice at these distances as if you are Net Control, since you could become Net Control if the situation changes.

HT 5-Watts:

Operators, keep a distance of 1 foot 2 inches or more from your whip antenna. Have all others keep a distance of 2 feet or more from your HT antenna.

- ▶ Method 1: Hold HT with one hand and use HT hand mic to keep antenna away from body and head.

- ▶ Method 2: Use a dowel/garden stake mast to hike the antenna above you with a backpack or harness. (See Figures 1 and 2)

Mobile 50-Watts:

Operators, keep a distance of 4 feet or more from your antenna. Have all others outside the vehicle, keep a distance of 6 feet or more from your antenna.

- ▶ Mag-mount or hard-mount on metal roof shields a radio operator within the vehicle from RF. Allowing you to sit under the antenna.

For those interested in my calculations feel free to contact me at

KM6NEP@slvares.org

Go to www.arrl.org/rf-exposure for more RF exposure information.



Figure 2