



RADIO-ACTIVE!

May 13, 2024, Volume 3, Issue 5



Geomagnetic Storming!

Stephen, KM6NEP Safety Officer

With the major solar events going on now, I want to share some of the information I watch on this subject. A great primer to all things solar is this video: [We Are at Risk! The Upcoming Solar Storm Says We're Not Ready - YouTube](#) . This NASA video dives into the heart of Solar Cycle 25, where escalating solar activity threatens both dazzling natural phenomena and severe technological disruptions. From stunning auroras down to our latitude to satellite snags and power outages, this video provides an understanding how increased solar flares and



We Are at Risk! The Upcoming Solar Storm Says We're Not Ready

storms could impact our world. Jim, N6EWP shared some impacts of the last few days that StarLink was heavily stressed but avoided serious disruptions to their service. GPS has been unavailable or unreliable at times. Electric grids have been strained and grid operators have been working overtime to keep it functioning. In general every-

thing is still functional to some extent, but widespread communications and power failures are still possible.

I watch from time to time, Dr. Tamitha Skov on YouTube: [Dr. Tamitha Skov - YouTube](#). She provides very good Solar weather updates regarding our Sun, and its effects on our Earth. Her broadcasts are for everyone, aviators and travelers regarding exposure to radiation at high altitudes, Satellites such as GPS, Emergency Responders and Ham Operators with their radios.

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An Extreme G4 Solar Storm Train, Eight Storms Race to Earth | Space Weather Spotlight 10 May 2024

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Event Spotlights



The two membership meetings in June (**June 19th**) and July (**July 17**) will be taken over by a potluck social at Skypark. Come join in on the lovely evening soiree and yacking about ham radio.

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 Icom IC-2730, mag mount antenna, battery and kneboard. 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 arranging for checking out.



S.A.F.E. is being rerun on Sunday, June 9th 1400—1600. This will be a 2 hour Spring Assessment Field Exercise (SAFE) to improve Santa Cruz County ARES members' mobile radio communication skills and knowledge of county geography. The goals are to improve mobile radio communication and logging skills, increase confidence and proficiency when working alone, improve knowledge of county geography and repeater coverage and have fun and maintain interest in ARES. The exercise consists of a check-in to the net from your car and obtaining task instructions, drive to the task location and report what you see from your car and keep a log of your actions. Ask for another task or ask to demobilize.

This is a voluntary skill-building exercise, not a formal ARES activation. You participate at your own risk. No county insurance coverage is provided.

Hope to hear you then! Watch your email for additional details.



Volunteer NOW: We have received dates of **July 15—20th** for the Santa Cruz Regional Active Shooter And Casualty Care training. Our role is perimeter monitoring. The event organization is being led by Sgt. Randall Hop of the Santa Cruz County Sheriffs department. More details and sign-up here: <https://www.signupgenius.com/go/2024ASperimeter> . This is a simple communications events with lots of volunteer opportunities.

Report your volunteer hours!

The reported volunteer hours for April 706 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. Also, when you report your hours, your call sign is entered in a monthly drawing. When you win, you get to select a valuable prize! *Congratulations to Moses, KN6TXF last month's winner.*

Save the Dates: ARES Events

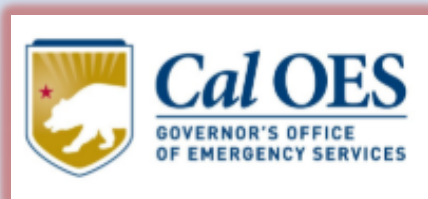
2024 SCC ARES Events

Date	Event	Approx. or confirmed date?	Description
May 19, 2024	Strawberry Fields Forever Bike Ride	Confirmed	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 15 -20, 2024	Santa Cruz Regional Active Shooter and Casualty Care Response Training	Confirmed	This event is sponsored by the Santa Cruz County Sheriff's department and provides first responder training for an active shooter. ARES provides perimeter monitoring in maintaining a closed event location.
July 4, 2024	Aptos 4th of July Parade	Confirmed	We provide monitoring of the public to provide information to the Sheriffs
August 18, 2024	Race through the Redwoods	Confirmed	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.
September 11-15, 2024	Santa Cruz County Fair	Confirmed	ARES provides Net Control functions for Sherriff Office, Security, and Fair personnel.
September 22, 2024	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 25th, 2024	Halloween Trunk or Treat	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.

Save the Dates: Other Events

2024 Other Radio Events for Ham Operator Participation

Date	Event	Approx. or confirmed date?	Description
June 22-23, 2024	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.



SAVE THE DATE: 2024 Cal OES Coastal Region Radio Exercise **August 24th 1200—1700**. This exercise reaches beyond Santa Cruz County and stretches from Humboldt and down the coast. The exercise will be simulating a complete black out and/or severely impacted internet system following a major earthquake along the coast. Roberta, AJ6KN is participating in the planning calls and will share more information as the event date approaches.

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/>
- XCZ Comm You Tube: <https://www.youtube.com/channel/UCHZH8TUSgh4SqHTPXSWolPA>
- Submitting deployment documents: **send in PDF form to** EOC.ARES@santacruzca.gov
- Submitting personal information such as DSW application, personal data update, education certificates: email K6PDL@ARRL.net, and EOC.ARES@santacruzca.gov

Org. Positions

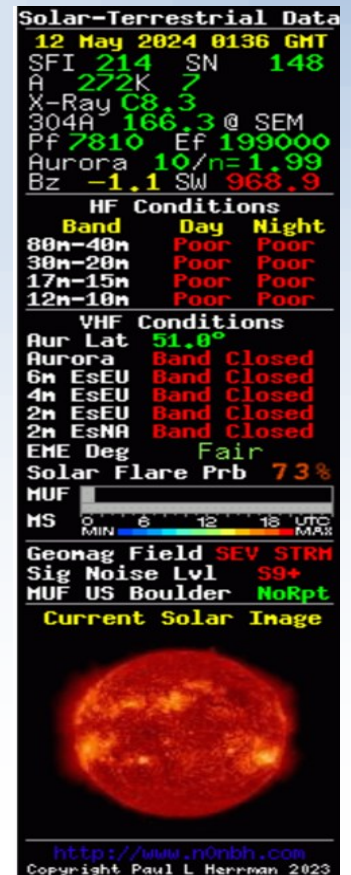
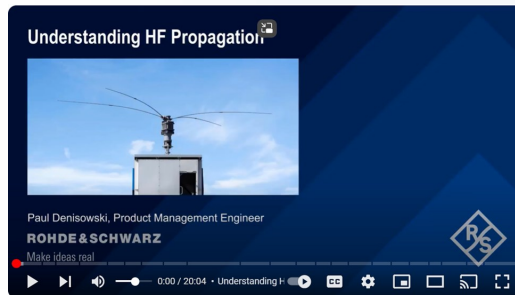
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Geomagnetic Storming! continued

Now some of you have seen this widget on some of the Ham web sites. Such as on the website: [Amateur Radio -- Usable HF Propagation Frequencies & Forecast](#). Those solar variables:

- ▶ SFI (Solar Flux Index),
 - ▶ SN (Sunspot Number),
 - ▶ A (Magnetic Fluctuation Index every 3 hours) and
 - ▶ K (Magnetic Fluctuation Index every 24 hours),
- were difficult for me to comprehend when I started learning about solar weather.

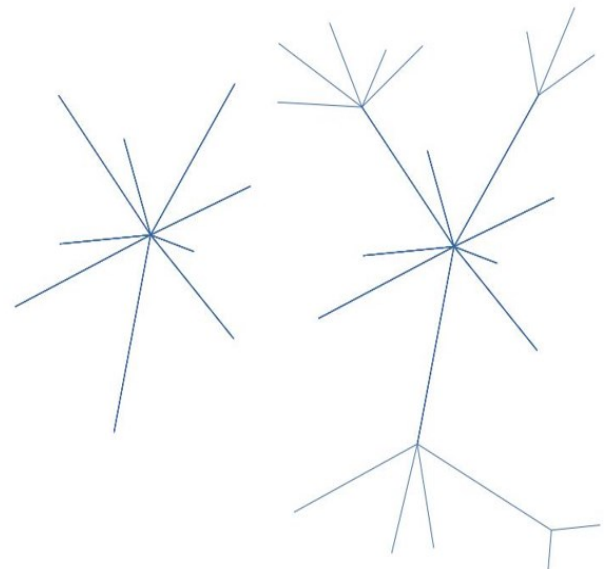
This video helped a lot: [Understanding HF Propagation from Rohde & Schwarz](#). [Understanding HF Propagation - YouTube](#)
All good learning and awareness of our solar environment.



Simplex Nets

Jim, N6EWP

Simplex nets are what we use when repeaters are not available. Our upcoming meeting we will discuss setting a simplex net and perform some hands-on entering a frequency into your HT. We will help everyone make sure they know how to set up their VFO for a simplex frequency like 146.520, the national calling frequency. Then we will look at how complex-simplex nets can use other simplex frequencies in addition to extend their range. Some commonly used 2 meter simplex frequencies in northern California are 146.46 146.49 146.52 146.55 146.58.



Simplex Net

Complex-Simplex Net

Lahaina—lessons learned

Stephen, KM6NEP Safety Officer

As you may recall, the devastating fires that Lahaina, Maui, Hawaii experienced last August. The area of Lahaina has similar topography to our Santa Cruz County coast. It has hills sloping down to the coast like our county. The Attorney General of Hawaii released a comprehensive timeline report on the Lahaina Fire in April 2024. The report pieces together a detailed timeline of preparedness efforts, fire progression, evacuation activities, emergency response, and fire suppression actions based on a comprehensive array of data sources including radio communications of the first responders and transcripts, video, images (still images or image capture from digital videos), emergency logs, technical discussions with authorities and residents, text and phone logs, email records,

automatic vehicle location applications, social media posts, witness accounts, and corroborated personal experiences. It has a lot of good information to learn from, and is located at:

<https://ag.hawaii.gov/maui-wildfire-investigation-resources-page/>. This website contains:

- ▶ The Lahaina Fire Comprehensive Report (Phase One) (199 pages),
- ▶ Lahaina Fire Minute-By-Minute Timeline (Spreadsheet),
- ▶ FSRI Fire Progression Map and Data Map (PDF),
- ▶ FSRI Fire Progression Data Map Animation (WMV),
- ▶ and Lahaina Fire Comprehensive Report and Timeline (Presentation) (11 slides).

What I found dramatic was the FSRI Fire Progression Map in picture of lower left. Also good reading is the brief "Summary of the Lahaina Fire" in the Lahaina Fire Comprehensive Report (Phase One). Yet to be released is Phase 2, the Incident Analysis Report to provide detail on conditions influencing the original fire situation, attempts to stop its rapid progression through Lahaina Town, and evacuation efforts. And Phase 3 is the Forward-Looking Report to answer the critical question, "How do we prevent this from happening again?"

Scanning through the Minute-by-Minute Timeline spreadsheet gives you the communication activity during the event.

Notable items:

- ▶ There was a Lahaina "AM" fire that was put out and then a Lahaina "PM" fire that came up in the same location.
- ▶ Hurricane Dora was 500 miles south bringing very high wind event to the area, blowing off portions of roofs, and downing power poles, and causing this dramatic fire progression.

Akin to learning of our CZU August Complex fire, see how this fire came about through these reports, and think about what you would do in that situation. Stay safe and aware.



Field Day—Come on down!



Recall last month we mentioned Field Day. Here is the latest communication of the plans by main organizer, Craig, N6SBN.

The Santa Cruz and San Lorenzo Valley Amateur Radio Clubs will be doing a Field Day event Friday through Sunday, June 21st the 23rd. This will be at the old PAR 3 Golf course (field) behind the Seaciff Inn (State Park exit) in Aptos. The public will be invited for Saturday only.

As with most years, We will have Five team Captains for the different radio modes, Phone, Digi, CW, FM and Winlink. We will have an ARES tent for educating the public about ARES. We will have an information desk with Greeters talking with the public.

Rich Seifert has generously allowed his contest call sign for the FD event. K6MMM. Previously, we've used N6OTA for the Gota Station. We're reaching out to JV for use of his OTA call sign for our GOTA station.

The ARRL has specifically asked for club member "greeters" to welcome the public and describe the event. We're asking for Volunteer "Greeters". We have made some outreach to the Boy Scouts. I understand that we have a club member who teaches Radio to the Scouts. We'll ask for his attendance if the Scouts schedule an appearance.



We are generating sign up sheets for able club members to assist with station building Friday afternoon, and break down Sunday around 10AM. Volunteer station builders should wear clothing to protect themselves from the sun. Volunteers should bring gloves and a hard hat for any antenna work.

We will have a few positions open for back up operators. Back up operators will be in close communication with Mode Captains prior to Field Day. Personally, I can only run FT4 at a furious pace for an hour at a time. I will be grateful for the assistance. This is a great way to get a taste of Field Day Ops. Some back up operators work night shift. I know Jason TKO will probably work Digi all night. If you're a night person, coordinate with the team Captains for Night ops.

We have a need for club members who can cook up food for Friday night, Saturday and Sunday morning. Some of our best times have been Saturday night, eating dinner together.

We are generating sign up sheets for 1) Assistant station builders. 2) Back up operators 3) Greeters and 4) food prep. These lists will be available to club members on the Field Day drive. A link will be posted to the K6BJ club web site in the coming days.

The rest is the nitty gritty of Field Day. Board members will be contracting for an ADA porta potty. Meal planning, sign posting, public communications and finding the above mentioned volunteers. We could use a photographer on Saturday to record the event, for our "Post" Field Day presentations (pictures are great). Many clubs get drone videos of the working stations.

Each year, there are challenges at Field Day and with the club members coordinated help, we've managed the difficulties.. I'm confident that this group will put on a great event. There is a lot of personal satisfaction being part of a group representing the Santa Cruz County ham clubs.

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.

Communications Corner: A Scribe for YOU as Net Control

Roberta, AJ6KN, Net Control Coordinator



Are you timid of taking Net Control because of the multiple activities that occur during a net? I am now offering to act as your scribe if you would like to try that out, so that you can concentrate on the voice aspect of the net. Of course, in an emergency, your scribe would likely be in person, but for practice purposes, I am using Google Docs shared with net control to allow us both to see it LIVE. If this sounds like something that interests you, please let me know and we will make it happen. I am scribing every net now, so if you want to "lurk" and see how it works, just send me an email and I will share the doc with you and you can observe it on your device.

An update on your DSW Renewal

Roberta, AJ6KN, Net Control Coordinator

Many ARES members are coming up for renewal on their DSW ID cards this year. Note that guidelines for Level II renewal include being a net control station for an ARES net once a year. <https://xczcomm.com/index.php/dsw/> for details.

Thanks to Ed, N6EMA, the DSW application has been refreshed and now is a fillable PDF, i.e. typing in a PDF. This feature improves legibility and accuracy of the information being recorded. Download the form from the link from above, open it up on your computer, activate the icon 'add text'. For each yellow highlight field in the red box, type the information. Then save the form and return the document as the instructions outline.

