

Established 1936
W9WKP

Southeast Nebraska Radio Club

TRAFFIC



Published quarterly March June Sept December



September 2021

You are invited.

SENRC 85th Anniversary

Sept 25, 15:00-21:00; Sept 26, 15:00-19:00 UTC

View: www.arrl.org/special-event-stations

SouthEast Nebraska Radio Club, W9WKP, 85rd Anniversary, Emergency Communication Exercise, Historical Coryell Park, Johnson, Nebr. 7.190(+ or -)

14,230 (+ or -); Certificate and QSL SASE: Chuck Bennett, KDØPTK, PO Box 67181, 68506. senebrradioclub@gmail.com facebook.com/SouthEast Nebraska Radio Club.

Sept QST ARRL magazine

Emergency Preparedness Special Event Station—Sept 25—26



Confirming QSO with		Day	Month	Year
UTC	MHz	RST	Mode	
2021				



Southeast Nebraska Amateur Radio Club

Established 1936

senebrradioclub@gmail.com

Schedule

FRI --(9/24)

1:00 pm Station setup

7:30 pm Why Ham Radio?

SAT (9/25)

9:00 a - 4:00 pm

Special Event Station

6:00 pm - BBQ

Homemade Ice Cream/
Cake

7:00 pm Presentation

Are you prepared?

SUN (9/26)

9:00 a- 2:00 p

Special Event Station

3:00 pm Annual Meeting



Find the tower. Email senebrradioclub@gmail.com.

It has been a challenging last six months with all that is happening with COVID, Afghanistan, Economy, and Mr. Biden's current state of affairs. Only the Lord knows how our Country will come out in the end. It seems everywhere we turn, there is some major crisis. The latest is he wants to electrify the postal service delivery vehicles (Green New Deal).

The FCC has decided to postpone the roll out of the price increase until 2022. I wonder what is headed our way with Ham Radio, regulations and even the privilege of using the airwaves.

FIELD DAY (Last full weekend in June.)

This year was the first year we set up for Field Day. We used the Lincoln Salvation Army EOC location on North 27th & Potter Street in Lincoln,. We parked our camper close to the building on the SA parking lot. And operated 40 out of the camper. Levi, KEØTXD set up 20 meters in the park near the parking lot.. It was a challenge, as would be any emergency setup, but we made it work. The car traffic was a challenge as was the antenna location. With the help of everyone, we got set up and operated on 20 and 40 meters. Friday evening a rain/wind storm blew in and we had to secure antennas and trouble shoot the generator problem, but it all worked out. We were fortunate to be able to use the Salvation Army's classroom for our Saturday family picnic. We tried to utilize 75 meter from Salvation Army shack, but was not able to get it up and running. Learned a lot in the process. We operated as F2 NE, NE10 Grid at the Salvation Army location. SATERN had their Emergency Communication Trailer on display and a table with Ham Radio and Salvation Army brochures. There was also a Ham Radio information table outside the 40 meter camper

location. KEØTXD, provided music and Christian message Sunday morning. The N 27th Street location provided walk-in and drive-in visitors to Field Day.

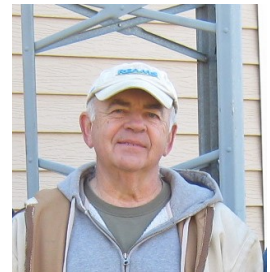
September Emergency

Preparation Month Annual Meeting

As a reminder, the September annual Club meeting will elect new officers for 2022, so **if you have a membership card on file**, new officers will be nominated and voted on at the meeting after NØN signs off. There is no membership fee; however, you need to be a member to vote.

It is hoped we can find a place for additional meetings throughout the year, but as yet have not been successful in finding a place to lite. When the Club was first organized, members met in homes. It may be the answer to growing the Club throughout SE Nebraska. With technology today, it is possible for us all to meet in the 'air'. It might be the best way to go for our situation. Let me know your thoughts.

You can email me a kd0ptk@gmail.com



Chuck Bennett
KDØPTK

Past president, Dennis Mason, KØBYK reported that a member from the early years of SENARC, Doug Halberet, KØBOY, became a SK earlier this year. In 1955 Doug and Dennis traveled together to KC, Mo to take the General License exam. Note: The Doug Halberet Memorial Amateur Radio Club was established on 5-25-21, Frank Vondra, WBØQQK, Trustee. (ref: QRZ).



Most 2021 Field Day Participants Entered in Class D

07/15/2021 ARRL

In the second year in which rule waivers were in place for ARRL Field Day, some 4,815 entries were received at ARRL Headquarters by July 13 — the majority in Class D (Home Stations). Last year saw more than 10,213 entries and 18,886 participants. Before the pandemic, in 2019, 3,113 entries were submitted, with 36,420 total participants.

“It appears that larger groups were more the norm in pre-pandemic times, as expected,” ARRL Contest Program Manager Paul Bourque, N1SFE, observed. “From the discussions I’ve been having with participants, even though some groups gathered in larger numbers this year, many participants chose either to gather in smaller groups or to operate solo from home as Class D or Class E stations. Although I don’t think we’ll see the number of entries that we did last year, we’re close in terms of the number of participants.”

With about 2 weeks to go until the entry submission deadline, the tally of participants reported is 16,166. They made just north of 1 million total contacts.

Andy Goss, AA5JF, took part in the first-ever Field Day for the Augusta University Amateur Radio Club (WA4AUG), which set up in the Georgia school’s Critical Event Preparedness and Response (CEPaR) Center.

“FD was already a success on Saturday, with the stations working smoothly, and lots of local visitors dropping by. An hour after sunrise on Sunday, we were counting our points, when Darby, KK4PEQ, announced he had just worked a station on 6-meter phone — just playing around on 50 MHz using the 20/15/10 tribander,” Goss

said. “He stayed on 6 for five QSOs, but we quickly [moved] to 10 and 15, finding those bands were open to just about everywhere, and we doubled our score in just 3 hours. What a rush!”

There’s still time to submit your 2021 Field Day entry. Most of this year’s Field Day entries have been [submitted online](#) (worth 50 bonus points!), although some 50 paper logs have been mailed in. Participants can check the [Entries Received](#) page to make sure their entries were received and complete. If the entry status indicates “Pending documents,” either the required dupe sheet (or in lieu of that, a Cabrillo log file) or supporting documentation of claimed bonus points is missing. Bourque said some 250 entries fall into that category right now. Participants can add documentation or edit their entries by following the link provided in the confirmation email sent to the email address provided upon entry, up until the entry submission deadline. Field Day entries must be submitted online or postmarked no later than 2059 UTC on July 27, 2021.

The breakdown of Field Day entries by class, as of July 13, showed 4,815 total entries, with 613 in Class A, 582 in Class B, 57 in Class C (Mobile), 2,619 in Class D, 858 in Class E, and 86 in Class F.

For his 2021 Field Day, Scott Hanley, WA9STI, took to the woods — the Los Padres National Forest — at a site some 7,400 feet elevation in the mountains overlooking California’s Central Valley. He operated as WA6LE in Class 1B. He put 358 contacts in the log on CW and phone — short of his 400-contact goal. “Almost all activity was on 20, 40, and 75/80 meters to a G5RV or end-fed 20-meter dipole,” Hanley said. “Six meters did not open, so only had two local SSB contacts and only 3 contacts on 2-meter FM.”



SWAP MEET

It was a fun time, and wasn't sure it was going to be held because of rain, but we committed to it and it turned out to be a nice day, however; there were not as many vendors due to the threat of rain early in the morning. Sharon brought delicious rolls and we also had Krispy Kream donuts and coffee. We didn't have the hot dogs and hamburgers but may expand it when we do it again soon. We had planned for Sept but the Lincoln Club jumped in and claimed the date we had planned so we will wait until Spring. Also planning a larger event which we will talk about after the location is confirmed.

**When All Else Fails
Ham Radio is There**



SOUTHEAST NEBRASKA (AMATEUR) RADIO CLUB

Application for membership must be on file to vote for Club officers.

CALL SIGN _____ DATE _____

1. _____
First Name Middle Initial Last Name

2. _____
City State Zip

3. _____
Email (PRINT LEGIBLY)

4. _____
Home Phone Cell Phone/Text

☐ TECHNICIAN

☐ GENERAL

☐ EXTRA

THERE IS NO MEMBERSHIP FEE; HOWEVER, A MEMBERSHIP FORM MUST BE ON FILE TO VOTE FOR CLUB OFFICERS IN SEPTEMBER.. Email senebrradioclub@gmail.com Ver: 7-2019

CNARC Bader Park Campout & Sunday Steak fry

Club members enjoyed the camping/steak fry at Bader this year. SENARC Members also helped set up and clean up and fry the steaks. It was a good time, and the weather was much cooler than last year and as always the steaks were delicious. Saturday evening CNARC, celebrated their 60th anniversary with a beautiful fireworks display on the beach. Hams are encouraged to attend this annual events, because if we don't, it will fade into

the sunset. Put it on your 2022 calendar. Grab the kids, grandkids, and head for Bader Park. It is family friendly and has hiking and biking trails, and a wonderful beach with camping facilities close by. This is our 3rd year and we hope to not miss 2022. A lot of work is put in to this every year and hopefully it will continue for many years to come. Thanks CNARC for this annual Amateur Radio event.

BADER PARK (Last full weekend in July.)



September —Emergency Preparation Month

Disasters Don't Wait. Make Your Plan Today."

Week 1 Sept 1-5 Make a Plan

Talk to your friends and family about how you will communicate before, during, and after a disaster.

Week 2 Sept 6-12 Build a Kit

Gather supplies that will last for several days after a disaster for everyone living in your home. Don't forget to consider the unique needs each person or pet may have in case you have to evacuate quickly. Update your kits and

supplies.

Week 3: Sept 13-19 Prepare for Disasters

Know the risk of disasters in your area and learn how to make your home stronger in the face of storms and act fast if you receive a local warning for alert.

Week 4 Sept 20-26 Teach Youth About Preparedness

Talk to your kids about preparing for emergencies and what to do in case you are separated. Reassure them by providing information about how they can get involved.

**Ready for an
Emergency?**
You can be.



MARK YOUR CALENDAR

Oct 2 ARK-BARK HAMFEST, BELLEVUE NE

Location: REED Community Center, 1200 Lord Blvd, Bellevue, NE

Website: : <http://www.be;eviearc.org> <http://www.aksarbenarc.org>

Bellevue ARC & Aksarben ARC

Talk in: 147.39 PL 131.8

402-690-2587,

Email: kc0ykn@arrrl.net

Nov 20 NORTHEAST NEBR HAMFEST, NORFOLK

Location: CHC Hall

105 Elm Avenue, Norfolk

Website: <http://qsl.net/evarc>

Sponsor: Elkhorn Valley Amateur Radio Club

TalkIn: 146.73 (+) CTCSS 131.8

402-992-7653

Email: k0fjw@arrrl.net

LARC NET Sun —Sat, 9:00 pm

EVARC NET Mon, 7:30 pm 146.73 CTCSS 131.8 linked to Nebraska Hub

AREA RAG CHEW NET, Tues, 7:30 pm 1406.73 CTCSS 131.8

DAKOTA COUNTY ARES NET, Wed., 8:00 pm 146.73, CTCSS 131.8 linked to Nebraska Hub

NORFOLK LOCAL RAG CHEW NET, Thurs, 7:30 pm, 444.250 CTCSS 88.5.

Texas Power Grid Operator Struggles to Provide Power in Heat, Just As It Did in Cold

The Electric Reliability Council of Texas (ERCOT) called for Texans to conserve electricity on Monday afternoon. For the second time this year, the council blamed “a significant number of forced generation outages” and record demand for the “tight grid conditions” that are expected to last until Friday, June 18.

ERCOT officials reported 11,000 MW of power generation being forced offline due to repairs. This equates to power for approximately 2.2 million homes, according to information obtained from ERCOT on Monday. The 11,000 MW of lost power generation compares to an average hot summer day’s outs of approximately 3,600 MW.

“We will be conducting a thorough analysis with generation owners to determine why so many units are out of service,” ERCOT Vice President of Grid Planning and Operations Woody Rickerson said in a written statement. “This is unusual for this early in the summer season.”

ERCOT’s chart shows the demand and capacity lines nearly colliding at about 2 p.m. on Monday. At that point, demand began to fall and capacity remained stable.

Texas Sports Reporter Matt Stepp called out ERCOT for not being able to provide reliable electricity in both the cold of winter and the heat of summer.

ERCOT in February “we shut down because it was just too cold, our grid is built to handle the Texas Summer”
ERCOT in June “ohh my bad, its also too hot”

— Matt Stepp (@Matt_Stepp817) [June 14, 2021](#)
In February, millions of Texans lost electrical power for days and record cold temperatures blanketed the Lone Star State, [Breitbart Texas reported](#). Now, as temperatures approached or exceeded the century mark across most of the state, ERCOT’s grid does not appear to be up to the task.
ERCOT’s Warren Lasher, senior director of systems planning did not appear to have an explanation for this week’s anticipated shortages in power production.

“I don’t have any potential reasons [for the plant outages] that I can share at this time,” Lasher [told](#) the Texas Tribune. “It is not consistent with fleet performance that we have seen over the last few

summers.”

He quickly shifted the blame to power producers, saying, “We operate the grid with the resources that we have available. It’s the responsibility of the generators to make sure their plants are available when demand is high.”

Demand is high. On Monday, the demand for energy from the ERCOT grid was expected to exceed 73,000 MW. The previous peak demand was reported to be 69,123 MW on June 27, 2018, [ERCOT reported](#).

Between now and Friday, ERCOT officials recommend the following:

- Set your thermostat to 78 degrees or higher – every degree of cooling increases your energy use by six to eight percent.
- Turn off lights and pool pumps and avoid using large appliances like ovens, washing machines and dryers.
- If you don’t need something – we are asking you to turn it off and unplug it if possible.

Consumers can find more information about the demand and supply factors on the council’s website, www.ercot.com.

[Bob Price](#) serves as associate editor and senior news contributor for the [Breitbart Texas-Border team](#). He is an original member of the Breitbart Texas team. Price is a regular panelist on Fox 26 Houston’s Sunday-morning talk show, [What’s Your Point?](#) Follow him on Twitter [@BobPriceBBTX](#), Parler [@BobPrice](#), and [Facebook](#).

https://www.youtube.com/watch?v=5Z9136_Nhh4



Learn Morse Code:

How Lincoln Changed the World in Two Minutes

GETTYSBURG ADDRESS

This video was produced in partnership with [Prager University](#) and made possible by a gift from a generous donor of the Civil War Trust.

Read the Transcript:

President Abraham Lincoln's [Gettysburg address](#) is one of the most famous speeches ever given. It is stunning in its brevity: ten sentences—272 words—and delivered in just over two minutes...few have said more with less.

GETTYSBURG ADDRESS 87 YEARS AFTER DECLARATION OF INDEPENDENCE

Lincoln delivered the address on November 19, 1863. He was in Gettysburg to dedicate a national military cemetery to the Union soldiers who fell at the [Battle of Gettysburg](#) four months earlier. The North's victory here was one of the pivotal battles of the American Civil War.

[Lincoln](#) begins this way: "Four score and seven years ago our fathers brought forth on this continent a new nation conceived in liberty and dedicated to the proposition that all men are created equal."

Lincoln goes back in time—not to the signing of the Constitution, but to the [Declaration of Independence](#). The Constitution, in forming our government, was the product of many compromises...most notably, slavery. In contrast, the Declaration of Independence declares our enduring national values. In one sentence, Lincoln summarizes the American project: liberty for all and equality of all.

"Now we are engaged in a great civil war testing whether that nation, or any nation so conceived and so dedicated, can long endure."

Lincoln's assertion is two-fold. First, the United States is unique. No nation was ever founded on a commitment to liberty and equality. And the Civil War was a trial to see if a nation

based on such lofty ideals could survive.

"We are met on a great battlefield of that war." Gettysburg, Pennsylvania, was the site of the bloodiest battle of America's bloodiest war. In three days of fighting, 51,000 Americans on both sides—Union and Confederate—were killed, wounded, captured, or missing.

"We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that nation might live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot dedicate—we cannot consecrate—we cannot hallow—this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract."

Lincoln is not in Gettysburg to celebrate the Union victory. Rather, he explains that those who fought were the loyal guardians of the American Experiment. With their blood, they watered the tree of liberty. As Lincoln himself knew, how could his words ever compare to that sacrifice?

He even speculates that, "The world will little note, nor long remember what we say here, but it can never forget what they did here."

Ironically, the world remembers what our sixteenth president said, but do we remember the actions of those who fought at Gettysburg?

Lincoln answers that question with a challenge: "It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead, we take increased devotion to that cause for which they gave the last full measure of devotion..."

Those who fought and died shouldered our nation's enduring values through the refining fire

of Gettysburg and the Civil War. Lincoln points to them, and challenges the living. **Are we prepared to heed their example to do what is necessary to advance the founding ideals of the Declaration of Independence?**

Remember, the Gettysburg Address is a wartime speech. Lincoln is steeling his contemporaries for the many battles, burdens, and responsibilities still ahead. But he's also looking to the future—he is looking to us.

Lincoln concludes: "...that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people, for the people, shall not perish from the earth."

The Union won the Civil War. Slavery ended. And with it, the values of liberty and equality were given a "new birth." However, the struggle for liberty and equality continued...and persists today. Lincoln foresaw this.

To remain a nation "dedicated to the proposition that all men"—all people—"are created equal" and that "government of, by, and for the people shall not perish from the earth"—these are the "unfinished work" and the "great task remaining" of every generation.

Ours is no exception. Are we up to President Lincoln's challenge?

I'm Professor Doug Douds of the Army War College for Prager University. ***

SENARC Special Event Station NØN

September 24, 25, 26
Coryell Park Picnic-Campout
Johnson, Nebraska

SENARC Monday Night Net

18:00 CDT on 75 meter SSB - 3.982 KHz

Early checkins 17:45 CDT

Net Control operators needed. Script provided. Contact: senebrradio-club@gmail.com.

The SENRC 75 meter net began in mid-April 2018. NTS Traffic is welcome..

*Net Control Schedule: 1st Robert Hayden, KØWD; 2nd, Chuck Bennett, KDPTK; 3rd, Levi Burrows, KETXD, Lincoln; 4th, Bev Bennett, KDØPTR, 5th, Levi Burrows, KFØTXD
Reminder to Net Control operators, please send to Net Manager, Robert Hayden, KØWD, email: drbobinc@gmail.com, cc: kd0ptr@gmail.com..*



A tower image will be planted somewhere in the TRAFFIC newsletter. See if you can find the page where the tower is planted...just for fun.. Send email to senebrradioclub@gmail.com and your name will be included in a prize drawing at the September meeting.

Hummm what page is the tower on in the August TRAFFIC newsletter? It may be upright, upside down and sideways.



ARRL Nebraska Convention LARC Hamfest June 19



Coryell Park

SENARC
YOU ARE INVITED
85 YEAR ANNIVERSARY
 September 24—26, 2021
 Coryell, Park
 Johnson, Nebraska

Use of Drones to Simulate Rain

Flooding

Dubi United Arab Emirates, Floods.

Cloud seeding: Officials are open about how cloud seeding operations have continued during the inclement weather with the National Center of Meteorology acknowledging that at least five flights took place early on in the storm.

The UAE is using “zapper” Drones to control Dubai's weather. To produce artificial rain, Dubai uses drones. July 22, Using drones to

manipulate natural events, such as the occurrence of rain. Residents have been warned that more unsettled weather is likely this weekend. The specialised drones release electric charges at cloud level to kickstart downpours in the desert nation. The UAE has significant problems when it comes to water resource....

Britains University of Reading helped create the cloud-seeding drone technology.

Ski resorts in Colorado reportedly use this technique to induce heavier snowfall, according to [Phyys.org](https://www.phyys.org/).

American Radio Amateurs Bringing a Replica Transmitter to Life



<https://hackaday.com/tag/ham->

Our Hackaday team is spread across the world, but remains in easy contact through the magic of the Internet. A number of us hold amateur radio callsigns, so could with a bit of effort and expenditure do the same over the airwaves. A hundred years ago this would have seemed barely conceivable as amateurs were restricted to the then-considered-unusable HF frequencies.

Thus it was that in December 1921 a group of American radio amateurs gathered in a field in Greenwich Connecticut in an attempt to span the Atlantic. Their 1.3 MHz transmitter using the callsign 1BCG seems quaintly low-frequency a hundred years later, but their achievement of securing reception in Ardrossan, Scotland, proved that intercontinental communication on higher frequencies was a practical proposition. A century later a group from the An-

tique Wireless Association [are bringing a replica transmitter to life](#) to recreate the event.

A free-running oscillator is today rarely seen in a radio transmitter, but at the time their single-tube Colpitts oscillator using a UV-204 transmitting tube would have been considered a stable source. That fed a 1KW power amplifier using three more UV-204s in parallel, which in turn fed a Marconi-style T antenna design with an earth counterpoise of multiple radial wires. The replica was originally built for an event in 1996, and substitutes the similar 204A tube for the now unobtainable UV-204. Even then, hundred-year-old tubes are hard to find in 2021, so they could only muster a single working example for the PA.

All in all it's a very interesting project, and one of which we hope we'll hear more as the anniversary approaches. If we can get the transmission details we'll share them with you, and let's see whether the same distances can be traversed with the more noisy conditions here in 2021.

To demonstrate how advanced this transmitter was for 1921, take a look at [the Alexanderson alternator, its mechanical contemporary](#). Hackaday <https://hackaday.com/tag/ham-radio/>

HACKADAY THIS WEEK IN AMATEUR RADIO

<https://twiar.net/?p=5074>

The GENESIS-L and GENESIS-N ham radio satellites were among several carrying amateur radio payloads [lost](#) following the failure of the Firefly Alpha rocket during its first launch on September 2 from the Vandenberg Space Force Base in California. An anomaly occurred about 2 minutes into the mission, causing controllers to destroy the launcher in flight. The anomaly has yet to be explained.

This was sad news for AMSAT-EA (Spain), as GENESIS-L and GENESIS-N were the first satellites they had built themselves.

According to the AMSAT-EA website, the GENESIS satellites were destroyed after the

Firefly Alpha vehicle presented an anomaly as it hit a velocity of Mach 1 and reached Max Q, a point of maximum aerodynamic pressure on the vehicle. The launch had been halted a few seconds before takeoff, but the countdown was subsequently resumed.

GENESIS-L and GENESIS-N were to conduct a series of telecommunications-related experiments, while a ground-station analysis of the received signals would try to attain Doppler variations in order to perform orbit determination and satellite identification from radio amateur stations around the world.

Read more – via American Radio Relay League | Ham Radio Association and Resources <http://www.arrl.org/news/view/genesis-ham-satellites-among-payloads-lost-in-launch-failure>

Big Sunspots Turn Toward Earth

Two of the biggest sunspots in years are turning toward Earth. Wide enough to swallow planets, the active regions are entering Earth's 'strike-

zone', meaning any flares or CMEs this week would probably be Earth-directed. Even if they don't explode, the sunspots are prime targets for amateur astronomers and sunset photographers. Find out how to safely observe them @ [Space-weather.com](https://spaceweather.com).

Solar Storm And It's Effects

In the article below one can know all about the cause and the effect of the massive Solar Storm or geomagnetic storm that is about to hit the Earth today. Know about it's effect on earth's satellites, its outer atmosphere, GPS, Electric grids and more. Also know how do such solar storms affect the humans.

Tulika Tandon

Created On: Jul 13, 2021 09:46 IST

Modified On: Jul 13, 2021 10:11 IST

The Earth is going to be hit by a **solar storm or also called geomagnetic storm** today or tomorrow as per NASA. However the effects of solar storm have already started showing on the scales.

This solar storm can affect the Earth's magnetic field, its weather, the satellites and much more. Take a look at the tweet made by Space Weather Organization below to know the changes that have already been registered.

Also know how solar storm originates, what causes it and why does it affect the satellite and GPS system on Earth here. First go through the tweets shared by various organizations here.

Radio Events Observed 12 Jul 2021

A. 245 MHz Bursts

No 245 MHz Burst Observed.

B. 245 MHz Noise Storms

No 245 MHz Noise Storms Ob-

served. [#spaceweather](#)

— Space Weather (@spaceweather) [July 13, 2021](#)

The Sun had a pretty intense solar flare recently — but don't worry, everything's OK. @NASA's Solar Dynamics Observatory says that on July 3, the Sun experienced a burst of radiation categorized as an X1.5-class flare. The eruption caused a brief radio blackout on Earth. [pic.twitter.com/MIXL55vrIw](#)

Planetary Society (@exploreplanets) [July 10, 2021](#)

What is a solar storm?

A solar storm occurs when the sun emits huge amounts of energy in the form of solar flares and coronal mass ejections. This term is used as atmospheric effects are felt on Earth even after they occur on the Sun which is far away from it.

The current storm is approaching the Earth at a speed of 1.6 million kilometres per hour as per NASA's update.

The solar flare was detected on July 3, 2021 from the Sun's equatorial hole in the atmosphere. The solar flares can travel at the maximum speed of 500 km/sec. Bigger geomagnetic storms may not be observed due to this level of solar flares, however, small geomagnetic unrests could be observed on the earth as well. These could light high latitude auroras on Earth.

Geomagnetic storm: Why is it called so?

A solar storm is called a geomagnetic storm as it causes major disturbances in the Earth's magnetosphere. It occurs when there is efficient exchange of energy from the solar wind into the space environment surrounding Earth.

The storm is a result of changes in currents, plasmas that are produced by the solar winds. But to maintain this, the solar winds are required to sustain high speeds for a longer duration. This way the energy of the wind is transferred to the Earth's magnetic field.

These coronal mass ejections can take days to reach the Earth after being ejected from the sun. On July 3, such a massive storm caused a radio blackout over the Atlantic.

What is a solar flare?

Solar flares are huge explosions on the surface of the Sun. These release energy and light and

high speed charged particles into space. NASA says the biggest of such flares can be called X Class Flares. The smallest flare are called A Class Flare followed by B, C, M and X. This time an X Class flare is about to hit our planet. These are seen as bright areas on the sun and they can last from minutes to hours.

When Coronal Mass Ejections or CME's hit the Earth, they can cause geomagnetic storms that disrupt satellites and electrical power grids. The CMEs are high masses of charged plasma that travel millions of kilometres per hour to reach Earth. They are released usually along with solar flares.

How does Solar Storm affect Earth and Humankind?

As per NASA, the solar flares reach and impact Earth only when they occur on the side of the sun facing Earth.

As flares are constituted by photons, they can travel out directly from their site. Thus if we can see the flare, we could be impacted by it.

The points mentioned below state the impact of the solar storm on Earth:

- Effective and high electrical currents that come along the Earth's surface at the time of auroral events disrupt electric power grids.
- They also contribute towards the corrosion of oil and gas pipelines.
- There are various changes in the ionosphere during geomagnetic storms. This interferes with high-frequency radio communications and Global Positioning System (GPS) navigation on Earth as well.
- The radio communications are in a position to be compromised for commercial airliners on transpolar routes at the time of polar cap absorption events that are a result of solar protons.
- Temporary operational anomalies can be caused when the exposure of spacecraft is done to the energy particles during such events.
- The solar flares cannot kill people for sure but can cause damage to their health to a level. *End*

1936 SENRC PURPOSE STATEMENT

It is necessary for amateurs to operate with self-serviced apparatus. *Every amateur of Nebraska owes it to himself to be ready to serve a part in communication emergencies. Service to the public in time of an emergency is a part of the tradition of the amateur radio [operator]*



Nebraska Emergency Response Network Created

Auburn, Neb. July 2 [1938]

Garold Bennett, owner and operator of amateur radio station W9WKP is the originator of the Nebraska Emergency Network of Radio Amateurs. He was appointed Nebraska emergency coordinator by the communication manager of the American Relay League in 1938. The task of the coordinator was to organize their communities in such a way that they will be prepared for emergencies. The purpose of the emergency network, Mr. Bennett says, "is to make the best disposition of our operators

and to render the most effective and useful service in future emergencies." He explains that the most vital radio service takes place when both communication and power circuits are paralyzed. Therefore, it is necessary for amateurs to operate with self-serviced apparatus.

Mr. Bennett expresses the spirit or the "ham" when he says: *"Every amateur of Nebraska owes it to himself to be ready to serve a part in communication emergencies. Service to the public in time of an emergency is a part of the tradition of the amateur radio [operator]."* WØWKP archives) 80 years looking forward.

SENRC, W9WKP, celebrated its 80th Anniversary in 2016 and has met for many of the 80 years at Coreyell Park. In the early years, the Club was comprised of Hams not only from Nebraska but also Iowa, Illinois, Missouri and Kansas.

For additional information contact senebrradioclub@gmail.com.

HF NETS

0730 CDT Nebr Phone Net	3.982
1000 CSD ARMSG Net (M-F)	14.277
1100 CDT SATERN (M, W, F, Sat)	14.325
11:15 CDT Alaska Early Checkin	14.282
13:00 CDT NE 40 Meter	7.282
1800 CDT SENRC Net (Monday)	3.982

SOUTHEAST NEBRASKA RADIO CLUB

W9WKP

2018-21 Officers

President: Chuck Bennett, KDØPTK

Vice President: Steve Ketelsen, NØSK

Secretary-Treasurer: Bev Bennett, KDØPTR

Club Station, W9WKP

Club Station Trustee: Robert Hayden, KØWD

Net Manager, Robert Hayden, KØWD,

Face Book: SouthEast Nebraska Radio Club

Email: senebrradioclub@gmail.com

CALENDAR OF EVENTS

Sept 24-26 SENARC, Coryell Park
Elections, Special Event Station

April 16, 2022 Location TBA

Face Book Address

www.facebook.com/SouthEastNebraskaRadioClub

