



SPACE WEATHER REPORT

SPRINGFIELD-GREENE COUNTY OFFICE OF EMERGENCY MANAGEMENT

Emergency Operations Center Partner Agencies

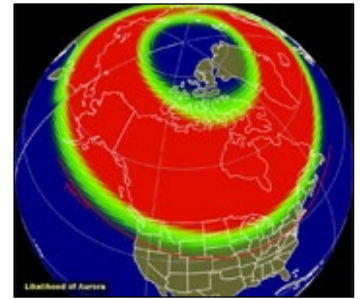
05/10/2024 | 1045 hrs Hazard Event #: 24-026

Current Watches/Warnings:

Geomagnetic Storm Watch

Hazard	May 10	May 11	May 12
Geomagnetic Storm	G1 MINOR	G4 SEVERE	G2 MODERATE
Radio Blackouts	R3 STRONG	R3 STRONG	R3 STRONG
Solar Radiation Storms	S1 MINOR	S1 MINOR	S1 MINOR

SCALES					
Geomagnetic Storm					
G NONE	G1 MINOR	G2 MODERATE	G3 STRONG	G4 SEVERE	G5 EXTREME
Radio Blackouts					
R NONE	R1 MINOR	R2 MODERATE	R3 STRONG	R4 SEVERE	R5 EXTREME
Solar Radiation Storms					
S NONE	S1 MINOR	S2 MODERATE	S3 STRONG	S4 SEVERE	S5 EXTREME



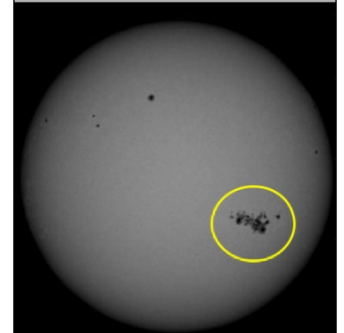
NOAA Space Weather Scale descriptions can be found at: <https://www.swpc.noaa.gov/noaa-scales-explanation>

HAZARDS EXPECTED

Areas Affected:	Area of impact consists of large portions of the sunlit side of Earth, strongest at the sub-solar point.
Induced Currents:	During a G4 geomagnetic storm, induced currents can surge through power lines and technological infrastructure, posing significant risks to electrical grids and communication networks.
Spacecraft:	Spacecraft systems may experience surface charging; increased drag on low Earth-orbit satellites and orientation problems may occur.
Navigation:	A G4 geomagnetic storm poses significant hazards to GPS systems, including potential signal disruptions, timing errors, and accuracy fluctuations, due to disturbances in Earth's ionosphere.
Radio:	This can cause HF radio signals to become degraded or completely absorbed. This results in a radio blackout – the absence of HF communication, primarily impacting the 3 to 30 MHz band.
Aurora:	Aurora may become visible over much of the northern half of the country, and maybe as far south as Alabama to northern California.

Active Space Weather Conditions Through Weekend

Large Sunspot Groups and Flares Lead to First G4 Watch Since 2005.



DISCUSSION

On Thursday, May 9, 2024, the NOAA Space Weather Prediction Center issued a Severe (G4) Geomagnetic Storm Watch, the first since January 2005. At least five earth-directed coronal mass ejections (CMEs) were observed and expected to arrive as early as midday Friday, May 10, 2024, and persist through Sunday, May 12, 2024. Several strong flares have been observed over the past few days and were associated with a large and magnetically complex sunspot cluster, which is 16 times the diameter of Earth.

EMERGENCY MANAGEMENT ISSUES

The Office of Emergency Management will continue to monitor this issue. If partner agencies experience problems that could be related to the watch, such as power spikes and communications outages (including loss of GPS signals), please call OEM Operations at (417) 869-6040 as soon as possible.

CITIZEN ACTION STATEMENT

- Emergency kit: Build an emergency kit to include batteries, water, and food.
- Family communications plan: Create a family communications plan with alternate communication methods to include maintaining a landline phone, having emergency radio communication devices, and establishing meeting points.
- Electronics: Keep an eye on solar activity reports, unplug or use surge protectors, store electronics in shielded containers, and back up crucial data.

OEM ONLINE



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