

Space Weather Highlights
03 August - 09 August 2026

SWPC PRF 2658
10 August 2026

Solar activity was at very low to low levels throughout the period, with no R1 (Minor) or greater events observed. Other activity three CMEs associated with DSFs on 03 Aug, which arrived on 07 Aug, as well as two CMEs without clear source locations on 04 Aug, which arrived at Earth on 08 Aug.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels throughout the period.

Geomagnetic field activity reached G1-G2 (Minor-Moderate) storm levels on 08 Aug following the arrival of CMEs that left the Sun on 04 Aug. Active conditions were observed on 03-04 Aug following the arrival of a CME that left the Sun on 30 Jul. Quiet and quiet to unsettled levels prevailed throughout the remainder of the period.

Space Weather Outlook
10 August - 05 September 2026

Solar activity is expected to range from very low to low levels throughout the outlook period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to reach high levels on 12-16 and 22-23 Aug. Normal to moderate levels are expected to prevail throughout the remainder of the period.

Geomagnetic field activity is likely to reach G1 (Minor) storm levels on 11 Aug due to the anticipated arrival of a CME that left the Sun on 08 Aug, and again on 19 Aug due to recurrent CH HSS influences. Active conditions are likely on 10 and 17-18 Aug, while quiet and quiet to unsettled conditions are likely to prevail throughout the remainder of the outlook period.



Daily Solar Data

Date	Radio Flux 10.7cm	Sun spot No.	Sunspot Area (10 ⁻⁶ hemi.)	X-ray Background Flux	Flares							
					X-ray			Optical				
					C	M	X	S	1	2	3	4
03 August	126	104	570	B5.9	3	0	0	1	0	0	0	0
04 August	118	100	420	B4.3	3	0	0	4	0	0	0	0
05 August	108	86	265	B3.7	1	0	0	2	0	0	0	0
06 August	101	71	165	B2.8	1	0	0	0	0	0	0	0
07 August	97	72	140	B2.4	0	0	0	0	0	0	0	0
08 August	94	62	70	B2.2	0	0	0	0	0	0	0	0
09 August	94	41	40	B2.7	5	0	0	1	0	0	0	0

Daily Particle Data

Date	Proton Fluence (protons/cm ² -day -sr)		Electron Fluence (electrons/cm ² -day -sr)	
	>1 MeV	>10 MeV	>2MeV	
03 August	1.5e+07	2.0e+04	1.2e+07	
04 August	2.1e+06	1.9e+04	1.3e+07	
05 August	1.6e+05	1.9e+04	1.5e+07	
06 August	1.2e+05	1.9e+04	2.5e+07	
07 August	2.3e+05	1.9e+04	3.1e+07	
08 August	6.7e+05	1.9e+04	1.5e+07	
09 August	9.1e+04	2.0e+04	1.7e+07	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
03 August	17	4-4-2-3-3-3-3-3	28	4-4-4-5-5-3-3-3	19	4-4-3-3-3-2-3-4
04 August	11	4-3-3-2-2-1-2-1	14	4-4-3-4-1-1-1-1	10	4-3-3-2-1-1-1-1
05 August	3	1-0-1-1-1-2-1-1	2	1-1-1-0-0-0-0-1	3	1-1-1-0-0-1-1-1
06 August	5	1-2-1-2-2-2-1-0	1	1-1-0-0-0-0-0-0	3	1-1-1-1-0-1-0-0
07 August	5	0-0-2-2-2-2-2-1	3	0-0-2-1-3-0-0-0	4	0-0-2-1-2-1-0-1
08 August	13	1-1-3-3-4-3-3-2	33	0-2-2-6-6-5-4-3	27	1-2-2-4-5-4-6-4
09 August	9	3-2-1-3-2-2-2-2	8	3-2-2-3-1-1-1-2	12	3-2-2-2-1-1-2-2

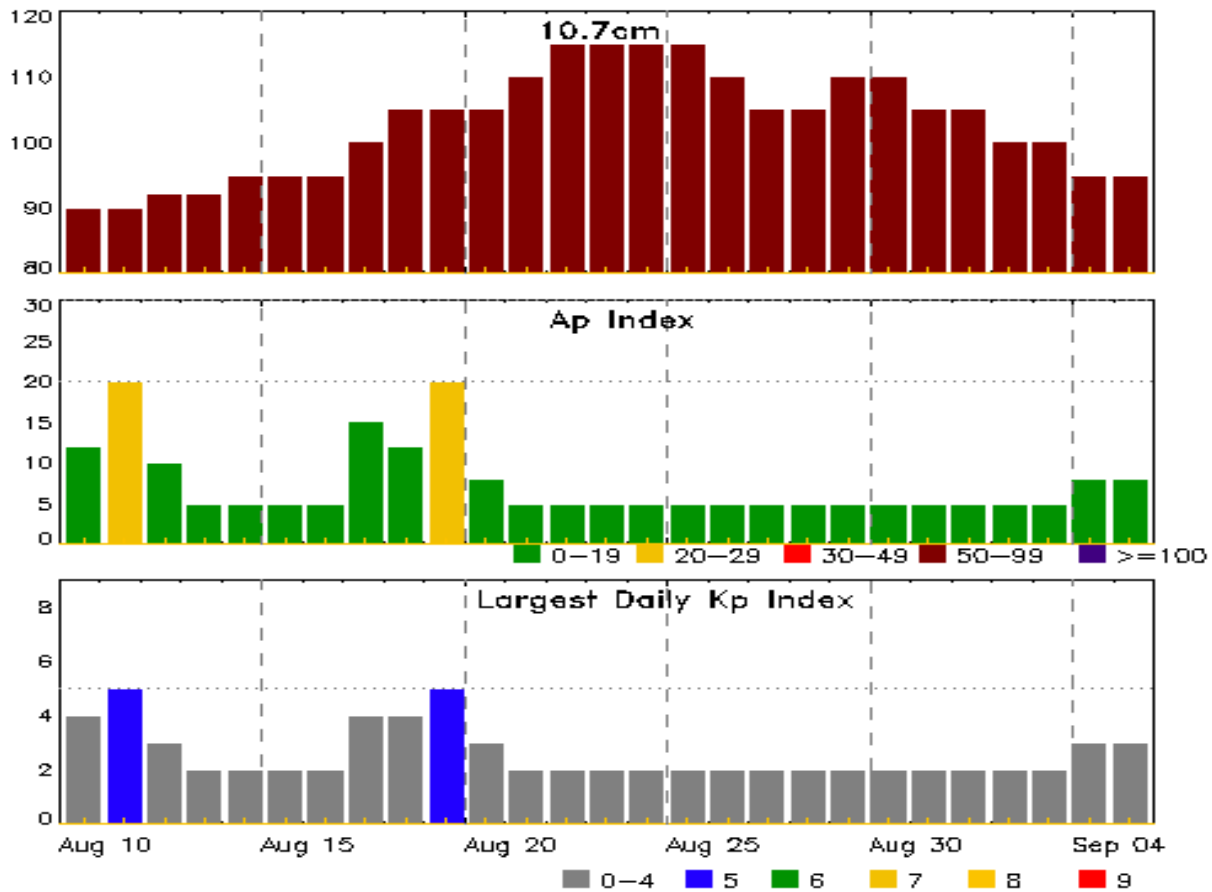


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
03 Aug 0253	EXTENDED WARNING: Geomagnetic K = 4	02/1237 - 03/2100
03 Aug 0253	EXTENDED WARNING: Geomagnetic K = 5	02/1427 - 03/1500
03 Aug 2003	EXTENDED WARNING: Geomagnetic K = 4	02/1237 - 04/0000
03 Aug 2355	EXTENDED WARNING: Geomagnetic K = 4	02/1237 - 04/0900
04 Aug 0810	EXTENDED WARNING: Geomagnetic K = 4	02/1237 - 04/1500
08 Aug 0959	WARNING: Geomagnetic K = 4	08/0958 - 2359
08 Aug 1140	ALERT: Geomagnetic K = 4	08/1136
08 Aug 1223	WARNING: Geomagnetic K = 5	08/1222 - 1800
08 Aug 1314	ALERT: Geomagnetic K = 5	08/1314
08 Aug 1336	WARNING: Geomagnetic K = 6	08/1336 - 1800
08 Aug 1719	EXTENDED WARNING: Geomagnetic K = 5	08/1222 - 2100
08 Aug 2029	EXTENDED WARNING: Geomagnetic K = 4	08/0958 - 09/0600
08 Aug 2029	EXTENDED WARNING: Geomagnetic K = 5	08/1222 - 2359
08 Aug 2030	ALERT: Geomagnetic K = 5	08/2030
08 Aug 2035	WARNING: Geomagnetic K = 6	08/2035 - 2359
08 Aug 2100	ALERT: Geomagnetic K = 6	08/2100
08 Aug 2108	ALERT: Geomagnetic K = 6	08/2100
09 Aug 1338	WATCH: Geomagnetic Storm Category G1 predicted	



Twenty-seven Day Outlook



Date	Radio Flux 10.7cm	Planetary A Index	Largest Kp Index	Date	Radio Flux 10.7cm	Planetary A Index	Largest Kp Index
10 Aug	90	12	4	24 Aug	115	5	2
11	90	20	5	25	115	5	2
12	92	10	3	26	110	5	2
13	92	5	2	27	105	5	2
14	95	5	2	28	105	5	2
15	95	5	2	29	110	5	2
16	95	5	2	30	110	5	2
17	100	15	4	31	105	5	2
18	105	12	4	01 Sep	105	5	2
19	105	20	5	02	100	5	2
20	105	8	3	03	100	5	2
21	110	5	2	04	95	8	3
22	115	5	2	05	95	8	3
23	115	5	2				

Energetic Events

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux		Intensity	
			Max						245	2695	II	IV

No Events Observed

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
03 Aug	0039	0049	0108	C1.0			4498
03 Aug	0914	0925	0934	C1.3			4498
03 Aug	1128	1133	1143	C1.4			4498
03 Aug	1743	1748	1754	B8.9	SF	N14W12	4498
04 Aug	0012	0019	0022	B8.9			4503
04 Aug	1152	1158	1202	C1.2	SF	S17E76	4503
04 Aug	1402	1408	1415	C1.0			4503
04 Aug	1526	1534	1537	C1.1	SF	S06W64	4501
04 Aug	1607	1613	1618	B9.4	SF	N17W22	4500
04 Aug	1807	1808	1809		SF	S06W64	4501
04 Aug	1812	1819	1823	B9.8			4496
05 Aug	0434	0441	0450	B5.7			4496
05 Aug	0556	0622	0657	C1.6	SF	S04W26	4502
05 Aug	1522	1530	1536	B9.2	SF	N14W41	4498
05 Aug	2343	2353	0009	B4.6			4502
06 Aug	0840	0847	0858	B5.4			4998
06 Aug	1218	1236	1245	B7.0			4502
06 Aug	1810	1818	1826	B5.6			4498
06 Aug	1901	1908	1915	B3.9			4502
06 Aug	1921	1929	1933	C1.0			4504
06 Aug	2022	2026	2029	B3.7			4500
07 Aug	1713	1720	1721	B2.8			4504
07 Aug	1721	1728	1731	B2.9			4504
08 Aug	0848	0858	0906	B7.6			4504
09 Aug	0013	0021	0031	B4.2			4504
09 Aug	0058	0106	0112	B3.4			4504
09 Aug	0159	0219	0239	B3.4			4498
09 Aug	1251	1258	1302	B3.4			
09 Aug	1525	1548	1554	C1.1			4505
09 Aug	1630	1640	1646	C1.8	SF	N14W71	4505
09 Aug	1801	1806	1808	C1.1			4505



Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
09 Aug	1850	1853	1858	B7.3			4505
09 Aug	1924	1928	1932	B8.8			4505
09 Aug	2026	2037	2047	C1.2			4505
09 Aug	2046	2053	2055	C1.0			4505



Region Summary

Date	Location		Sunspot Characteristics					Flares							
	Lat CMD	Helio Lon	Area 10 ⁻⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
								C	M	X	S	1	2	3	4
Region 4496															
24 Jul	N05E59	54	30	5	Cso	6	B								
25 Jul	N05E46	54	70	7	Dao	9	B				2				
26 Jul	N05E33	52	90	9	Dao	10	B	3							
27 Jul	N05E20	53	80	10	Cao	7	B				1				
28 Jul	N05E06	54	80	8	Cso	8	B	1							
29 Jul	N05W10	57	60	3	Hsx	1	A								
30 Jul	N05W23	56	100	4	Hsx	3	A								
31 Jul	N05W37	56	110	5	Cso	4	B								
01 Aug	N05W50	57	70	4	Cso	3	B								
02 Aug	N04W65	59	50	3	Hsx	3	A				2				
03 Aug	N04W77	58	60	2	Hsx	1	A								
04 Aug	N04W91	58	40	2	Hsx	1	A								
								4	0	0	5	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 54

Region 4498															
27 Jul	N14E76	357	40	2	Hax	1	A								
28 Jul	N14E62	358	210	4	Cao	5	B	2			1				
29 Jul	N14E50	357	140	5	Dai	11	BG	3							
30 Jul	N14E37	356	130	5	Cai	12	BG	1			1				
31 Jul	N14E22	358	150	6	Dai	8	BG	1							
01 Aug	N14E10	357	150	5	Dai	12	BD	2			1				
02 Aug	N15W03	356	120	7	Dsi	17	BD								
03 Aug	N14W17	357	180	7	Dsi	16	BD	3			1				
04 Aug	N14W29	356	145	4	Dso	9	B								
05 Aug	N15W43	357	110	3	Hsx	3	A				1				
06 Aug	N14W56	357	70	3	Hsx	3	A								
07 Aug	N14W70	358	70	3	Hax	4	A								
08 Aug	N14W83	358	30	2	Hax	3	A								
								12	0	0	5	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 356



Region Summary - continued

Date	Location	Sunspot Characteristics						Flares							
	Lat CMD	Helio	Area 10 ⁻⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
		Lon						C	M	X	S	1	2	3	4
Region 4499															
28 Jul	N04E32	28	30	6	Dro	5	B								
29 Jul	N04E18	29	30	7	Cro	8	BG								
30 Jul	N04E05	28	60	8	Dao	15	BGD								
31 Jul	N05W08	28	80	8	Dao	12	B	8			5	1			
01 Aug	N04W21	28	50	6	Dai	11	B	1			2				
02 Aug	N04W38	32	30	8	Cso	7	B	1							
03 Aug	N04W51	31	60	8	Dai	7	B								
04 Aug	N04W65	32	40	8	Cai	6	B								
05 Aug	N04W81	35	20	8	Cro	6	B								
06 Aug	N04W95	36	20	8	Cro	6	B								
								10	0	0	7	1	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 28

Region 4500

29 Jul	N18E58	349	10	2	Cro	2	B								
30 Jul	N18E44	349	20	5	Cao	6	B								
31 Jul	N18E28	352	50	4	Cao	7	B	1							
01 Aug	N18E14	353	60	6	Dao	8	B								
02 Aug	N19E02	352	50	6	Cso	6	B								
03 Aug	N18W12	352	50	5	Cso	2	B								
04 Aug	N18W25	352	25	8	Cso	4	B				1				
05 Aug	N19W39	353	15	4	Cro	4	B								
06 Aug	N19W53	354	10	2	Hrx	3	A								
07 Aug	N19W68	355	20	1	Axx	1	A								
08 Aug	N19W80	355	10	1	Axx	1	A								
								1	0	0	1	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 352



Region Summary - continued

Date	Location		Sunspot Characteristics					Flares							
	Lat CMD	Helio Lon	Area 10 ⁻⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
								C	M	X	S	1	2	3	4
Region 4501															
29 Jul	S09E16	31	20	5	Dro	5	BG	1							
30 Jul	S08E03	30	20	8	Dso	8	B								
31 Jul	S08W12	32	40	8	Cao	8	B								
01 Aug	S07W27	34	70	6	Dao	6	B				1				
02 Aug	S07W42	36	90	6	Dso	7	B								
03 Aug	S07W53	34	100	7	Dso	7	B								
04 Aug	S07W67	34	70	7	Cso	3	B	1			2				
05 Aug	S07W82	36	30	2	Hsx	1	A								
								2	0	0	3	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 30

<i>Region 4502</i>															
01 Aug	S06E17	350	10	1	Bxo	2	B								
02 Aug	S06E03	351	20	4	Cro	5	B								
03 Aug	S06W10	351	120	6	Dao	11	B								
04 Aug	S07W25	352	90	7	Dao	6	B								
05 Aug	S07W39	353	70	8	Dso	8	B	1			1				
06 Aug	S07W53	354	50	9	Dao	5	B								
07 Aug	S07W66	354	30	9	Cao	4	B								
08 Aug	S07W80	354	10	8	Bxo	3	B								
								1	0	0	1	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 351

<i>Region 4503</i>															
04 Aug	S18E65	262	10	1	Axx	1	A	2							
05 Aug	S18E54	260	20	7	Cro	4	B								
06 Aug	S17E41	260	15	7	Dro	4	B								
07 Aug	S17E27	261	10	8	Bxo	3	B								
08 Aug	S16E10	264	10	1	Axx	1	A								
09 Aug	S16W03	265	10	1	Axx	1	A								
								2	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 265



Region Summary - continued

Location		Sunspot Characteristics					Flares							
Date	Lat	Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical			
	CMD	Lon	10 ⁶ hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3

Region 4504

06 Aug	S20E59	243	plage					1							
07 Aug	S20E45	243	10	7	Bxi	10	BG								
08 Aug	S18E31	243	10	4	Bxo	4	G								
09 Aug	S19E18	243	10	8	Bxo	7	B								
								1	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 243

Region 4505

09 Aug	N16W79	340	20	2	Bxo	3	B	5							
								5	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 340



Preliminary Report and Forecast of Solar Geophysical Data (The Weekly)

Published every Monday by the Space Weather Prediction Center.

U.S. Department of Commerce
NOAA / National Weather Service
Space Weather Prediction Center
325 Broadway, Boulder CO 80305

Notice: The 27-day Outlook, Satellite Environment, X-ray and Proton plots have been redesigned.
Comments and suggestions are welcome SWPC.Webmaster@noaa.gov

The Weekly has been published continuously since 1951 and is available online since 1997.

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Current

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