

Space Weather Highlights
10 August - 16 August 2026

SWPC PRF 2659
17 August 2026

Solar activity ranged from very low to low levels throughout the period. No R1 (Minor) or greater events were observed. The largest flare was a C8.2/Sn at 16/1928 UTC from Region 4506 (N12, L=215, class/area=Dao/100 on 16 Aug). An associated CME was observed in LASCO C2 imagery following the C8.2 flare, but analysis is ongoing in order to determine any Earth-directed component. Other activity included the lift-off of a large filament near S16E22 at 14/0332 UTC which produced a CME that is expected to arrive on 17-18 Aug.

No proton events were observed at geosynchronous orbit.

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

Geomagnetic field activity was at quiet or quiet to unsettled levels throughout the period.

Space Weather Outlook
17 August - 12 September 2026

Solar activity is expected to range from very low to low levels throughout the outlook period, with a slight chance for an R1-R2 (Minor-Moderate) event.

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 19-20, 23-24, and 28 Aug. Normal to moderate levels are expected to prevail throughout the remainder of the outlook period.

Geomagnetic field activity is expected to reach active levels on 17-18 Aug due to the anticipated arrival of a CME that left the Sun on 14 Aug. Active conditions are expected again on 21-22 Aug and 04 Sep due to the influences of a CH HSS. Quiet and quiet to unsettled conditions are expected 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
10 August	95	55	90	B3.3	2	0	0	0	0	0	0	0
11 August	96	62	180	B2.5	3	0	0	4	0	0	0	0
12 August	100	82	280	B2.8	1	0	0	1	0	0	0	0
13 August	108	101	320	B3.3	0	0	0	0	0	0	0	0
14 August	114	106	300	B4.1	4	0	0	4	1	0	0	0
15 August	117	111	340	B4.5	5	0	0	3	1	0	0	0
16 August	129	83	511	B8.4	14	0	0	10	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	
10 August	5.3e+04	2.0e+04	2.3e+07	
11 August	3.9e+05	2.0e+04	2.9e+07	
12 August	1.8e+05	2.0e+04	1.5e+07	
13 August	6.3e+04	2.0e+04	1.7e+07	
14 August	1.0e+05	2.0e+04	1.5e+07	
15 August	8.0e+04	2.0e+04	1.5e+07	
16 August	5.5e+04	2.0e+04	1.6e+07	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
10 August	5	1-0-2-2-3-0-1-1	5	2-1-1-4-0-0-0-1	5	2-1-2-2-1-0-0-2
11 August	6	0-0-0-2-3-3-2-1	5	0-0-0-1-2-4-1-1	7	1-1-1-2-3-3-2-1
12 August	8	1-3-2-3-2-0-0-1	15	2-4-3-4-3-0-0-0	8	2-3-2-2-2-1-3-1
13 August	8	2-2-1-2-2-2-2-3	4	1-2-0-1-2-1-2-1	7	2-2-1-1-1-1-2-3
14 August	12	3-3-2-3-4-2-2-1	22	2-4-4-5-4-4-2-2	9	3-2-3-3-2-2-2-1
15 August	6	1-1-1-2-3-2-2-1	6	2-2-0-3-2-2-1-0	6	1-2-0-1-2-2-3-2
16 August	0	2-2-2-0-0-0-0-0	0	1-1-4-0-0-0-0-0	5	1-2-2-2-0-0-1-1

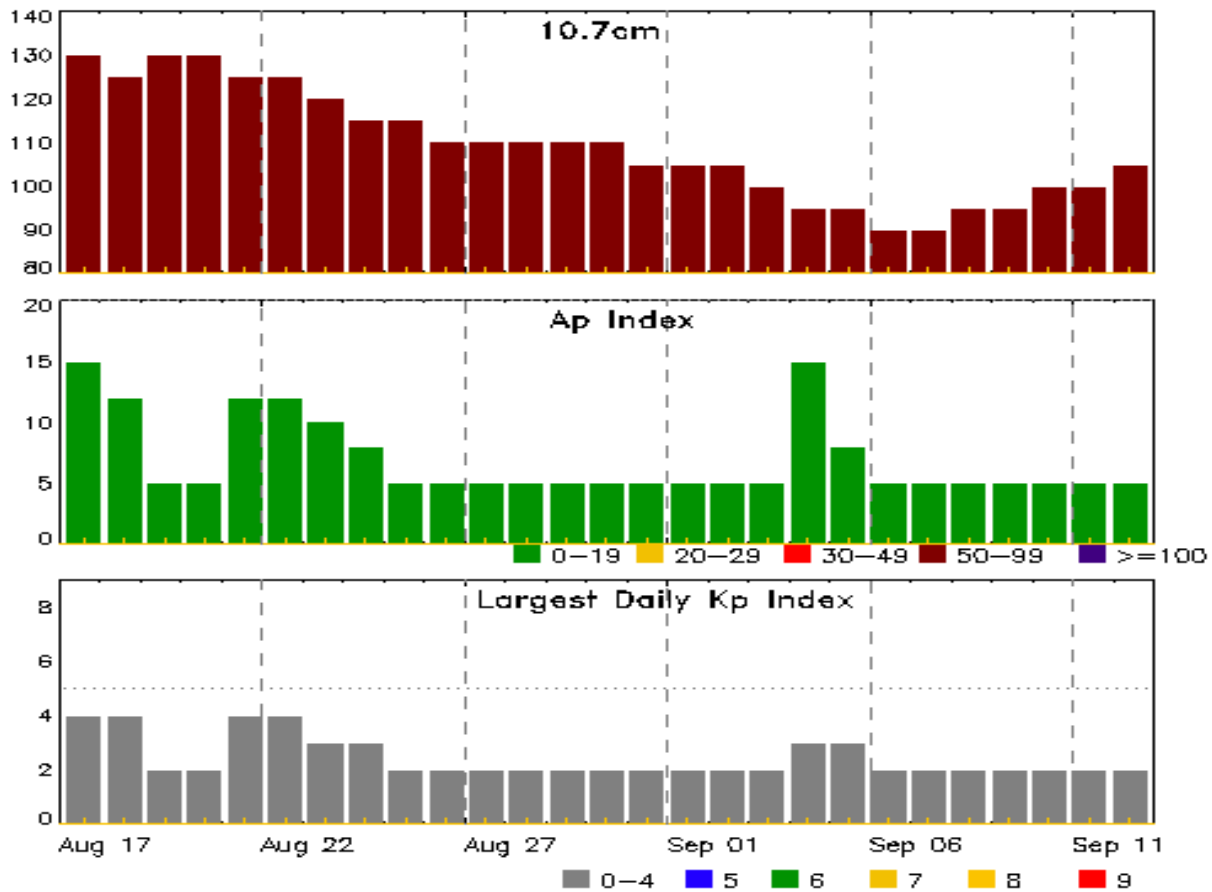


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
11 Aug 1047	WARNING: Geomagnetic Sudden Impulse expected	11/1040 - 1248
11 Aug 1141	SUMMARY: Geomagnetic Sudden Impulse	11/1133
11 Aug 2055	CANCELLATION: Geomagnetic Storm Category G1 predicted	
14 Aug 0715	ALERT: Type II Radio Emission	14/0650
14 Aug 1054	WARNING: Geomagnetic K = 4	14/1052 - 2359



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
17 Aug	130	15	4	31 Aug	105	5	2
18	125	12	4	01 Sep	105	5	2
19	130	5	2	02	105	5	2
20	130	5	2	03	105	5	2
21	125	12	4	04	100	5	2
22	125	12	4	05	95	15	3
23	120	10	3	06	95	8	3
24	115	8	3	07	90	5	2
25	115	5	2	08	90	5	2
26	110	5	2	09	95	5	2
27	110	5	2	10	95	5	2
28	110	5	2	11	100	5	2
29	110	5	2	12	100	5	2
30	110	5	2		105	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			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
10 Aug	0017	0022	0027	B7.1			4502
10 Aug	0107	0114	0119	B6.1			4505
10 Aug	0224	0229	0234	B4.8			4505
10 Aug	0432	0439	0443	B7.0			4506
10 Aug	1141	1150	1154	B6.9			4505
10 Aug	1154	1159	1205	B7.2			4505
10 Aug	1212	1229	1234	C1.0			4505
10 Aug	1234	1316	1338	C2.4			4505
10 Aug	1725	1732	1738	B7.1			4503
11 Aug	1548	1554	1556	B4.1	SF	N05E48	4507
11 Aug	1720	1728	1741	B5.3			4508
11 Aug	1752	1753	1756		SF	N05E47	4507
11 Aug	1800	1804	1828	C1.7	SN	N05E47	4507
11 Aug	1847	1847	1851		SF	N05E46	4507
11 Aug	1959	2010	2022	C1.4			4508
11 Aug	2119	2123	2127	B5.0			4507
11 Aug	2203	2212	2218	B4.4			4506
11 Aug	2255	2304	2318	C2.5			4507
12 Aug	0113	0121	0128	B7.7			4507
12 Aug	0138	0143	0148	B5.9			4507
12 Aug	0148	0154	0202	B5.6			4507
12 Aug	0603	0617	0626	B6.1			
12 Aug	0728	0733	0737	C1.7			4508
12 Aug	1641	1648	1655	B5.4	SF	N12E17	4506
12 Aug	2237	2251	2259	B5.2			4507
12 Aug	2259	2323	2343	B5.6			4503
13 Aug	0145	0150	0202	B4.3			4508
13 Aug	0202	0224	0237	B7.4			
13 Aug	1052	1058	1101	B5.4			4507
13 Aug	1705	1709	1726	B4.5			4507
13 Aug	1824	1835	1851	B9.2			4507



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
13 Aug	2116	2128	2133	B6.0			4508
13 Aug	2304	2311	2318	B5.3			4507
13 Aug	2333	2341	2357	B6.7			4507
14 Aug	0542	0552	0603	B9.2			4507
14 Aug	0638	0701	0731	C4.1			4503
14 Aug	0650	0702	0723		SF	S18W57	4503
14 Aug	0802	0803	0809		SF	N08E37	4508
14 Aug	0945	0953	0956	C1.5	SF	N10E40	4508
14 Aug	1133	1142	1146	C1.1	SF	N11W10	4506
14 Aug	2145	2155	2200	C4.3	1B	N09E34	4508
15 Aug	0025	0033	0036	C1.2			4506
15 Aug	0315	0318	0320	B8.0			4508
15 Aug	0414	0421	0425	B7.8			4506
15 Aug	0530	0537	0540	B5.6			4506
15 Aug	0554	0602	0607	B6.3			4506
15 Aug	0655	0700	0705	B6.5			4507
15 Aug	0731	0740	0743	B7.3			4506
15 Aug	0809	0818	0820	C3.3	1N	N09E28	4508
15 Aug	0921	0928	0931	C1.0	SF	N11W24	4506
15 Aug	1023	1030	1035	B6.6			4507
15 Aug	1159	1206	1208	B7.6			4507
15 Aug	1330	1339	1341	C2.0	SF	N03W13	4507
15 Aug	1438	1449	1458	C3.2	SN	N07W14	4507
15 Aug	1709	1716	1721	B8.6			4507
16 Aug	0228	0233	0242	C1.0			4508
16 Aug	0242	0249	0253	C2.7			4506
16 Aug	0313	0318	0323	C3.7			4507
16 Aug	0340	0347	0359	C1.4			4506
16 Aug	0437	0451	0500	C2.3			4506
16 Aug	0608	0616	0618	C1.3	SF	N13W32	4506
16 Aug	0631	0637	0640	C1.4	SF	N12W36	4506
16 Aug	0831	0838	0851	C1.8			4506
16 Aug	0934	0936	0943		SF	N03W22	4507
16 Aug	0956	0959	1002	C1.5	SF	N05W25	4507
16 Aug	1023	1024	1028		SF	N09W38	4506
16 Aug	1135	1136	1137		SF	N03W23	4507
16 Aug	1232	1239	1244	C1.5			4506
16 Aug	B1427	1428	1433		SF	N03W23	4507



Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
16 Aug	1448	1451	1527	C1.7	SF	N11W39	4506
16 Aug	1533	1541	1551		SF	N10W41	4506
16 Aug	1901	1928	1945	C8.2	SN	N10W41	4506
16 Aug	2148	2155	2206	C1.0			
16 Aug	2206	2211	2213	C1.0			



Region Summary

	Location		Sunspot Characteristics					Flares								
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical					
Date	Lat	CMD	Lon	10 ⁻⁶ hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
<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									
10 Aug	S18W13	261	20	5	Bxi	7	B									
11 Aug	S17W26	261	10	5	Bxo	6	B									
12 Aug	S17W39	261	40	5	Dao	6	B									
13 Aug	S17W53	261	30	5	Cao	3	B									
14 Aug	S17W67	262	30	3	Cao	3	B	1				1				
15 Aug	S17W81	263	70	7	Cso	3	B									
									3	0	0	1	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 265

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								
10 Aug	S19W00	248	10	1	Axx	1	A								
11 Aug	S19W14	249	plage												
12 Aug	S19W28	250	plage												
13 Aug	S19W42	250	plage												
14 Aug	S19W56	251	plage												
15 Aug	S19W70	252	plage												
16 Aug	S19W84	253	plage												
								1	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 248

Region 4505															
09 Aug	N16W79	340	20	2	Bxo	3	B	5							
10 Aug	N15W92	340	50	5	Dao	5	B	2							
								7	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 340



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 4506															
10 Aug	N10E41	207	10	2	Bxo	2	B								
11 Aug	N11E26	209	10	3	Bxo	6	B								
12 Aug	N12E10	212	20	7	Cri	11	B				1				
13 Aug	N12W03	211	20	8	Bxo	4	B								
14 Aug	N11W17	212	10	2	Bxo	4	B	1			1				
15 Aug	N11W31	213	10	6	Dri	6	B	2			1				
16 Aug	N12W46	215	100	8	Dao	7	BG	9			6				
								12	0	0	9	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 211

<i>Region 4507</i>															
11 Aug	N04E43	192	30	3	Cri	8	B	2			4				
12 Aug	N04E29	193	80	7	Dso	7	B								
13 Aug	N04E15	193	100	9	Dso	11	BG								
14 Aug	N04W00	195	110	10	Dsi	17	B								
15 Aug	N04W15	197	140	10	Dai	13	B	2			2				
16 Aug	N04W29	198	240	12	Eai	20	BG	2			4				
								6	0	0	10	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 195

<i>Region 4508</i>															
11 Aug	N06E70	165	130	3	Hsx	2	A	1							
12 Aug	N07E56	166	120	3	Hax	2	A	1							
13 Aug	N07E43	166	100	2	Hax	2	A								
14 Aug	N07E27	168	80	4	Cso	3	B	2			2	1			
15 Aug	N08E15	167	60	2	Cso	3	B	1				1			
16 Aug	N07E03	166	90	6	Cso	2	B	1							
								6	0	0	2	2	0	0	0

Still on Disk.

Absolute heliographic longitude: 166



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 4509

12 Aug	N12W47	269	20	3	Cro	6	B								
13 Aug	N11W61	269	50	4	Dao	5	B								
14 Aug	N11W75	270	50	5	Cao	5	B								
15 Aug	N10W89	271	30	2	Cso	2	B								
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 269

Region 4510

13 Aug	N12W14	222	10	6	Bxo	5	B								
14 Aug	N12W29	224	10	4	Cro	3	B								
15 Aug	N12W44	226	10	3	Hrx	1	A								
16 Aug	N13W59	228	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 222

Region 4511

13 Aug	S09E67	141	10	1	Axx	1	A								
14 Aug	S09E53	142	10	1	Axx	1	A								
15 Aug	S09E40	142	10	1	Axx	1	A								
16 Aug	S09E26	143	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 143

Region 4512

15 Aug	S19W15	196	10	3	Cro	2	B								
16 Aug	S20W28	197	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 196



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

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Current

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