

Solar activity ranged from very low to moderate levels. The largest event was an M2.5 flare (R1-Minor) at 16/0435 UTC from a location beyond the east limb. A Type II radio sweep (est. 310 km/s) was observed on 18 Feb and associated with a large eruption just beyond the southeast limb. Only low-levels C-class activity was observed over 17-23 Feb. The sun ended the summary period free of sunspots on the visible disk for the first time since 2022.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels over 16-20 Feb following sustained higher wind speeds from a positive polarity coronal hole. Normal to moderate levels were observed over 21-22 Feb.

Geomagnetic field activity reached a peak of G2 (Moderate) levels on 16 Feb due to influence from a positive polarity CH HSS. Quiet to unsettled levels were observed over 17-19 Feb. Active levels over 20-21 Feb were likely associated with transient passage. By 22 Feb, a CIR ahead of a negative polarity CH HSS increased geomagnetic conditions up to G1 (Minor) geomagnetic storm levels. Wind speeds were observed between 600-700 km/s on 22 Feb as the high speed stream set in.

Space Weather Outlook **23 February - 21 March 2026**

Solar activity is expected to be at very low, with a good change for C-class flares and a slight change for M-class flare (R1/R2-Minor/Moderate) 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 23 Feb - 03 Mar, 06-08 Mar, 11-12 Mar, 15-19 Mar, and 21 Mar due to anticipated influence of multiple recurrent coronal holes. The remainder of the outlook period is likely to be at normal to moderate levels.

Geomagnetic field activity is expected to reach G2 (Moderate) levels on 21 Mar.; G1 (Minor) geomagnetic storm levels are likely on 23 Feb, 10 Mar, 14 Mar, and 20 Mar; active levels are likely on 24 Feb, 05-06 Mar, 12-13 Mar, 15-16 Mar, and 19 Mar; unsettled levels are likely over 25 Feb, 07 Mar, 09 Mar, 11 Mar, and 17-18 Mar. All increases in geomagnetic activity are anticipated due to expected influence from multiple, recurrent coronal hole HSSs. The remainder of the outlook period is likely to be at mostly quiet levels.



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
16 February	118	69	400	B4.4	1	1	0	1	0	0	0	0
17 February	122	63	360	B3.9	3	0	0	3	0	0	0	0
18 February	119	43	240	B4.0	2	0	0	0	0	0	0	0
19 February	116	39	235	B3.8	3	0	0	0	0	0	0	0
20 February	111	34	170	B3.6	1	0	0	1	0	0	0	0
21 February	110	11	120	B3.1	0	0	0	0	0	0	0	0
22 February	110	0	0	B3.0	4	0	0	0	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	
	16 February	5.5e+06	1.5e+04	4.4e+07
17 February	1.9e+06	1.5e+04	8.0e+07	
18 February	3.4e+06	1.6e+04	1.5e+08	
19 February	1.5e+06	1.5e+04	1.1e+08	
20 February	4.1e+06	1.5e+04	1.9e+08	
21 February	2.2e+06	1.4e+04	2.6e+07	
22 February	2.2e+06	1.4e+04	2.6e+07	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	16 February	23	4-4-4-3-3-3-5-2	47	3-6-5-6-3-5-6-2	29
17 February	7	2-2-1-2-2-3-1-2	22	2-1-5-5-4-4-2-2	11	3-2-2-3-2-3-2-3
18 February	7	1-3-2-1-2-2-2-2	14	1-3-2-4-4-4-2-0	10	2-3-2-2-2-2-2-2
19 February	8	3-2-2-2-3-1-1-1	16	2-3-3-4-5-2-1-1	10	3-3-3-2-3-1-1-1
20 February	6	0-2-2-2-2-2-2-2	17	0-2-2-5-5-3-2-2	12	1-3-2-2-3-2-3-4
21 February	12	4-3-2-2-1-1-3-3	8	3-2-2-1-1-1-2-3	16	4-3-3-2-1-2-3-4
22 February	24	3-4-5-3-4-3-3-4	65	2-4-7-7-6-5-5-4	27	4-5-5-4-4-4-4-5



Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
16 Feb 0142	WARNING: Geomagnetic K = 5	16/0140 - 0600
16 Feb 0556	EXTENDED WARNING: Geomagnetic K = 5	16/0140 - 1500
16 Feb 0557	EXTENDED WARNING: Geomagnetic K = 4	14/2000 - 16/2100
16 Feb 1651	ALERT: Electron 2MeV Integral Flux \geq 1000pfu	16/1635
16 Feb 1701	WARNING: Geomagnetic K = 5	16/1700 - 2359
16 Feb 1701	EXTENDED WARNING: Geomagnetic K = 4	14/2000 - 17/0300
16 Feb 1836	ALERT: Geomagnetic K = 5	
16 Feb 1839	WARNING: Geomagnetic K = 6	16/1840 - 2100
16 Feb 2000	ALERT: Geomagnetic K = 6	
16 Feb 2052	EXTENDED WARNING: Geomagnetic K = 4	14/2000 - 17/1200
16 Feb 2052	EXTENDED WARNING: Geomagnetic K = 6	16/1840 - 17/0300
16 Feb 2052	EXTENDED WARNING: Geomagnetic K = 5	16/1700 - 17/0900
17 Feb 1318	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	16/1635
18 Feb 0452	ALERT: Type II Radio Emission	18/0431
18 Feb 0527	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	16/1635
19 Feb 0205	WARNING: Geomagnetic K = 4	19/0205 - 0900
19 Feb 0855	EXTENDED WARNING: Geomagnetic K = 4	19/0205 - 1800
19 Feb 1206	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	16/1635
20 Feb 0716	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	16/1635
20 Feb 2327	WARNING: Geomagnetic K = 4	20/2327 - 21/1200
20 Feb 2340	ALERT: Geomagnetic K = 4	
21 Feb 0953	WATCH: Geomagnetic Storm Category G1 predicted	
21 Feb 2230	WARNING: Geomagnetic K = 4	21/2230 - 22/1200
21 Feb 2243	ALERT: Geomagnetic K = 4	
22 Feb 0425	WARNING: Geomagnetic K = 5	22/0425 - 1200
22 Feb 0503	ALERT: Geomagnetic K = 5	
22 Feb 0740	ALERT: Geomagnetic K = 5	

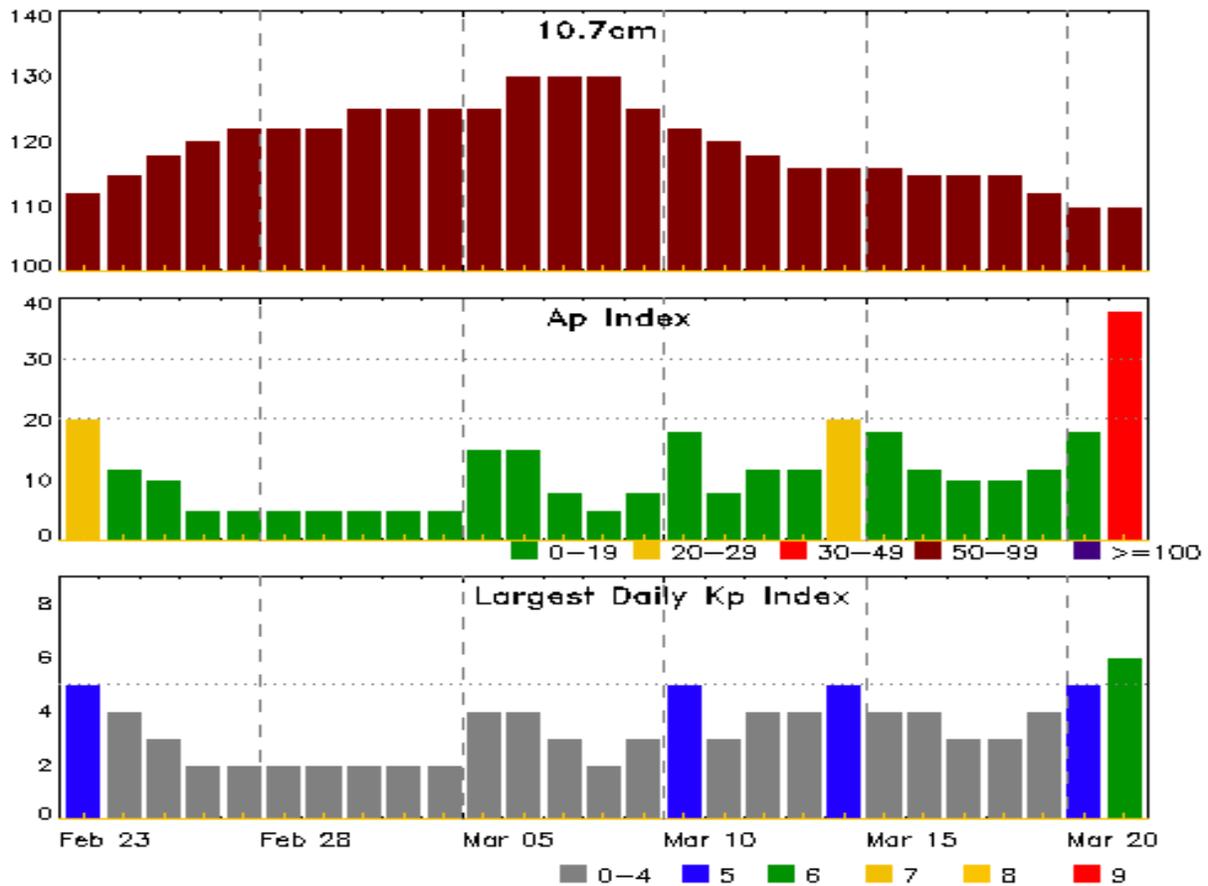


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
22 Feb 0800	EXTENDED WARNING: Geomagnetic K = 4	21/2230 - 22/2359
22 Feb 0800	WARNING: Geomagnetic K = 6	22/0800 - 1500
22 Feb 0800	EXTENDED WARNING: Geomagnetic K = 5	22/0425 - 1800
22 Feb 2154	WARNING: Geomagnetic K = 5	22/2154 - 23/0600
22 Feb 2200	EXTENDED WARNING: Geomagnetic K = 4	21/2230 - 23/1200
22 Feb 2202	ALERT: Geomagnetic K = 5	



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
23 Feb	112	20	5	09 Mar	125	8	3
24	115	12	4	10	122	18	5
25	118	10	3	11	120	8	3
26	120	5	2	12	118	12	4
27	122	5	2	13	116	12	4
28	122	5	2	14	116	20	5
01 Mar	122	5	2	15	116	18	4
02	125	5	2	16	115	12	4
03	125	5	2	17	115	10	3
04	125	5	2	18	115	10	3
05	125	15	4	19	112	12	4
06	130	15	4	20	110	18	5
07	130	8	3	21	110	38	6
08	130	5	2				



Energetic Events

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ Flux	Imp/ Brtns	Location	Rgn #	Radio Flux		Intensity	
			Max						245	2695	II	IV
16 Feb	0403	0435	0500	M2.4	0.052							

Flare List

Date	Time			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
16 Feb	0403	0435	0500	M2.4			
16 Feb	1224	1307	1342	C1.0			
16 Feb	1536	1536	1543		SF	N09W18	4374
16 Feb	1751	1759	1804	B6.3			
16 Feb	1817	1825	1829	B7.2			
16 Feb	1829	1833	1840	B7.3			
17 Feb	0441	0452	0502	C1.0			
17 Feb	1547	1556	1604	B9.8	SF	N09W32	4374
17 Feb	1621	1624	1627		SF	N09W32	4374
17 Feb	1650	1655	1705		SF	N09W33	4374
17 Feb	1837	1848	1858	C1.1			
17 Feb	2307	2323	2331	C1.8			4374
18 Feb	0431	0435	0442	B6.8			
18 Feb	0458	0507	0517	C1.4			4374
18 Feb	1330	1337	1342	B5.8			4374
18 Feb	1927	1934	1940	B9.2			4374
18 Feb	2017	2042	2058	C2.2			
19 Feb	0652	0718	0724	C2.0			
19 Feb	1006	1015	1022	C1.0			4374
19 Feb	1906	1918	1945	C1.5			4374
20 Feb	0252	0307	0316	C2.8	SF	N07E01	4377
20 Feb	0554	0558	0610	B8.1			4374
20 Feb	1207	1216	1225	B6.0			4374
21 Feb	0853	0858	0903	B4.6			4374
21 Feb	1803	1810	1813	B6.6			4374
22 Feb	0026	0037	0045	C1.2			4374
22 Feb	0102	0111	0116	B7.7			
22 Feb	0620	0633	0641	C2.2			4374
22 Feb	1139	1257	1325	C1.0			4374
22 Feb	1526	1641	1741	C1.5			



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 4373																		
06 Feb	N10E66	106	60	2	Hsx	1	A											
07 Feb	N09E56	103	130	8	Cso	6	B											
08 Feb	N08E43	103	130	9	Cso	5	B											
09 Feb	N09E24	108	120	4	Hax	3	A											
10 Feb	N09E10	110	140	3	Hax	3	A											
11 Feb	N09W02	108	120	3	Hsx	2	A	1				2						
12 Feb	N09W16	109	120	3	Cao	5	B											
13 Feb	N10W30	110	130	3	Cao	5	B		1			1						
14 Feb	N10W43	110	130	3	Hax	3	A											
15 Feb	N09W56	109	130	3	Hax	3	A											
16 Feb	N09W69	110	120	3	Hax	4	A											
17 Feb	N09W83	110	110	3	Hax	3	A											
								1	1	0	3	0	0	0	0	0		

Crossed West Limb.
 Absolute heliographic longitude: 108

Region 4374																		
09 Feb	N11E72	61	150	11	Cko	5	B	3				1						
10 Feb	N11E58	62	200	10	Cso	5	B	2										
11 Feb	N11E45	61	210	10	Cso	7	B	1				1						
12 Feb	N10E31	62	200	10	Cso	2	B											
13 Feb	N11E20	60	210	11	Cso	3	B											
14 Feb	N10E02	65	200	3	Hsx	1	A	2										
15 Feb	N10W11	65	200	3	Hsx	2	A	1				1						
16 Feb	N09W23	63	210	5	Cao	5	B					1						
17 Feb	N08W37	64	220	4	Dsi	11	B	1				3						
18 Feb	N08W50	64	210	4	Dai	8	B	1										
19 Feb	N09W64	65	200	3	Cso	4	B	2										
20 Feb	N09W77	65	150	3	Hsx	1	A											
21 Feb	N10W91	65	120	3	Hsx	1	A											
								13	0	0	7	0	0	0	0	0		

Crossed West Limb.
 Absolute heliographic longitude: 65



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Lon	Helio 10 ⁶ hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical					
									C	M	X	S	1	2	3	4	
Region 4375																	
11 Feb	N16E72		34	60	2	Hsx	1	A									
12 Feb	N15E57		36	40	1	Hsx	1	A									
13 Feb	N16E44		35	40	1	Hax	1	A									
14 Feb	N16E31		35	30	2	Hax	1	A									
15 Feb	N16E18		35	20	1	Hrx	1	A									
16 Feb	N16E05		35	10	1	Hrx	1	A									
17 Feb	N16W08		35	10	1	Hrx	1	A									
18 Feb	N16W21		35	10	1	Hrx	1	A									
19 Feb	N16W35		36	10	1	Hrx	1	A									
20 Feb	N17W48		36	10	1	Axx	1	A									
21 Feb	N17W62		36	plage													
22 Feb	N17W76		37	plage					0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 35

Region 4376																	
14 Feb	N13E54		13	10	1	Axx	1	A									
15 Feb	N13E41		13	10	1	Axx	1	A									
16 Feb	N13E27		13	10	1	Axx	1	A									
17 Feb	N13E14		14	plage													
18 Feb	N13E01		14	plage													
19 Feb	N13W13		14	plage													
20 Feb	N13W27		15	plage													
21 Feb	N13W41		15	plage													
22 Feb	N13W55		16	plage					0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 14



Region Summary - continued

Date	Location		Sunspot Characteristics					Flares															
	Lat CMD	Lon	Helio 10 ⁻⁶ hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical											
									C	M	X	S	1	2	3	4							
Region 4377																							
14 Feb	N09E68	359	60	4	Cao	4	B																
15 Feb	N08E55	359	50	4	Cro	8	BD																
16 Feb	N07E39	1	50	5	Cro	8	BG																
17 Feb	N07E25	2	20	7	Cro	8	B																
18 Feb	N07E10	4	20	5	Bxo	4	B																
19 Feb	N07W03	4	25	4	Hrx	4	A																
20 Feb	N07W16	4	10	4	Bxo	2	B	1					1										
21 Feb	N07W31	5	plage																				
22 Feb	N07W46	7	plage																				
										1	0	0	1	0	0	0	0	0					

Still on Disk.

Absolute heliographic longitude: 4



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

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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

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

<https://www.swpc.noaa.gov/products/weekly-highlights-and-27-day-forecast> --

Current

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