

Solar activity was at low levels on 18-20 and 22 Feb, moderate levels on 17 and 21 Feb, and reached high levels on 23 Feb. In total, seven M-class flares (R1-Minor) were observed, ranging from M1.0 to M4.9, and one X-class (R3-Strong) flare. Contributing regions were 3992 (S06, L=246, class/area Eai/090 on 17 Feb), 3998 (S14, L=114, class/area Ekc/290 on 23 Feb), 4000 (N17, L=105, class/area Dai/180 on 22 Feb), and 4001 (N24, L=176, class/area Dai/050 on 23 Feb). The sole X flare was an X2.0 from Region 4001 at 23/1927 UTC.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 17-18 Feb due to persistent negative polarity CH influence, and was at normal to moderate levels on 19-23 Feb.

Geomagnetic field activity reached G1 (Minor) storm levels on 18-19 Feb, and saw an isolated active period on 20 Feb, due to persistent negative polarity CH influence. Conditions were at quiet to unsettled levels 21-23 Feb as CH effects dissipated.

### **Space Weather Outlook** **24 February - 22 March 2025**

Solar activity is expected to range from low to moderate levels throughout the period. R1-R2 (Minor-Moderate) activity is possible at different points throughout the period as active regions grow, evolve, return from the far-side of the Sun. There is a slight chance for R3 or greater events if any of the active regions develop additional complex magnetic structures.

There is a slight chance for S1 (Minor) or greater proton events, pending the development and activity of the active regions.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels from 24 Feb-09 Mar and 19-22 Mar. From 10-18 Mar, high levels are likely as recurrent negative polarity coronal holes are expected to move into geoeffective positions.

Geomagnetic field activity is expected to be at quiet to unsettled levels on 24 Feb-06 Mar with periodic, weak CH influences. Unsettled to active levels, with isolated G1 (Minor) storming conditions are likely from 07-18 Mar as recurrent negative polarity CHs are expected to be in a geoeffective position. A return to mostly quiet conditions is expected on 19-22 Mar as the CHs move out of a favorable position.



### ***Daily Solar Data***

Date	Radio Flux 10.7cm	Sun spot No.	Sunspot Area (10 <sup>-6</sup> hemi.)	X-ray Background Flux	Flares							
					X-ray			Optical				
					C	M	X	S	1	2	3	4
17 February	185	218	1550	C1.2	17	1	0	9	0	0	0	0
18 February	178	187	1465	B9.9	11	0	0	0	0	0	0	0
19 February	178	119	1315	B9.9	6	0	0	1	0	0	0	0
20 February	184	123	1335	C1.2	6	0	0	0	0	0	0	0
21 February	197	138	1240	C1.6	6	2	0	11	2	0	0	0
22 February	199	215	1230	C1.9	15	0	0	11	0	0	0	0
23 February	210	186	1150	C2.7	7	4	1	7	0	0	0	0

### ***Daily Particle Data***

Date	Proton Fluence (protons/cm <sup>2</sup> -day -sr)		Electron Fluence (electrons/cm <sup>2</sup> -day -sr)	
	>1 MeV	>10 MeV	>2MeV	
17 February	5.0e+05	1.7e+04	9.5e+07	
18 February	7.8e+05	1.7e+04	4.9e+07	
19 February	3.4e+05	1.6e+04	1.2e+07	
20 February	4.5e+04	1.6e+04	9.2e+06	
21 February	8.3e+04	1.8e+04	1.5e+07	
22 February	1.2e+07	2.6e+04	9.9e+06	
23 February	5.7e+06	1.9e+04	4.7e+06	

### ***Daily Geomagnetic Data***

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
17 February	11	2-3-2-2-3-3-2-3	20	2-2-2-4-5-5-2-2	15	3-3-2-2-3-4-2-3
18 February	10	3-2-1-1-1-3-1-4	12	3-4-2-0-1-3-3-3	14	4-3-2-1-1-3-1-5
19 February	13	4-2-3-2-2-2-3-3	19	4-3-5-3-2-2-3-3	20	5-3-4-2-2-2-4-3
20 February	5	3-2-1-0-2-1-0-1	4	3-2-1-1-0-0-0-0	7	4-3-1-1-1-0-0-1
21 February	6	3-0-1-1-2-2-2-1	3	1-0-1-1-3-0-0-0	6	3-1-1-1-2-1-1-2
22 February	3	2-0-0-0-2-2-1-1	5	2-0-1-3-3-0-1-0	7	3-1-1-1-2-1-1-2
23 February	6	2-1-1-1-1-2-2-3	2	1-1-1-2-0-0-0-1	15	3-2-1-1-0-1-1-3

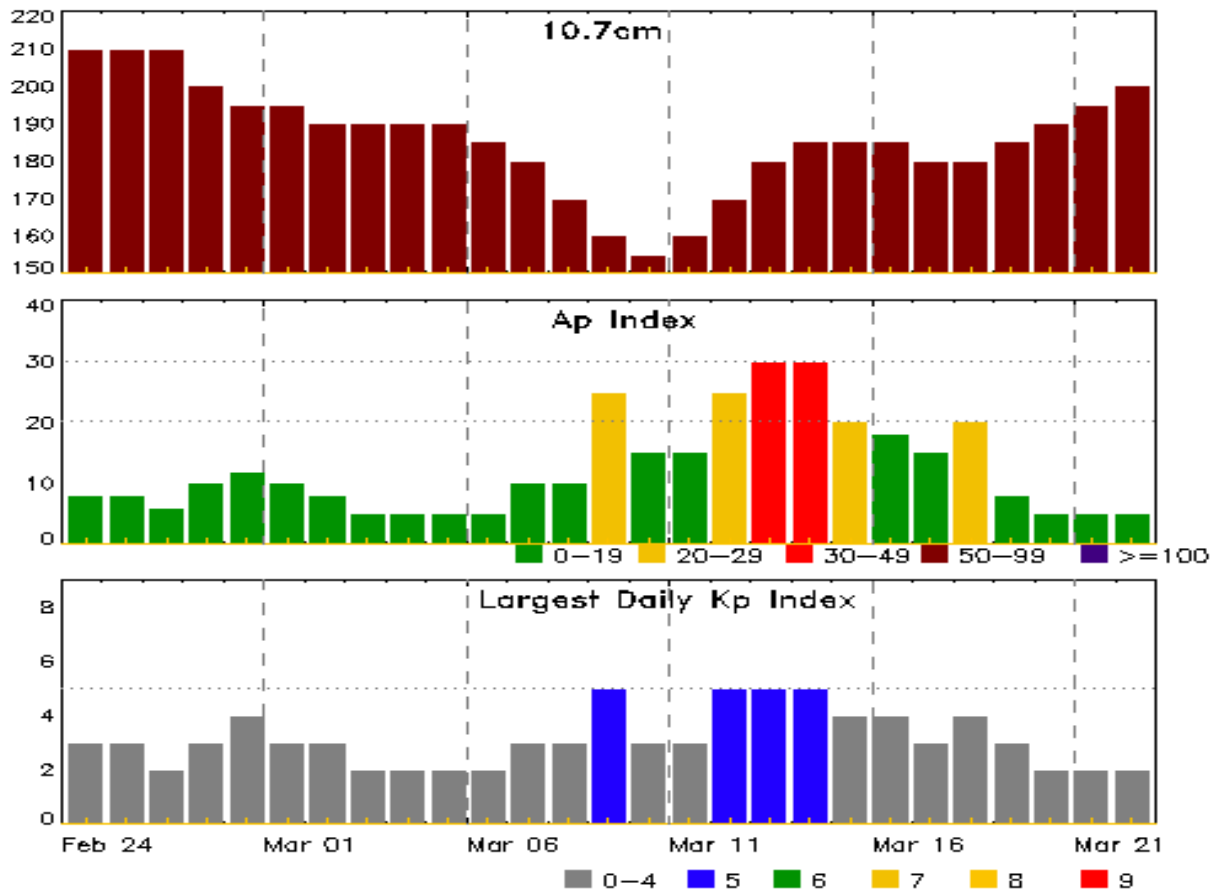


### *Alerts and Warnings Issued*

<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
17 Feb 0347	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	11/1405
17 Feb 0444	EXTENDED WARNING: Geomagnetic K = 4	13/0527 - 17/1200
17 Feb 1124	EXTENDED WARNING: Geomagnetic K = 4	13/0527 - 17/2359
17 Feb 2347	EXTENDED WARNING: Geomagnetic K = 4	13/0527 - 18/0900
18 Feb 0855	EXTENDED WARNING: Geomagnetic K = 4	13/0527 - 18/1500
18 Feb 2235	WARNING: Geomagnetic K = 4	18/2234 - 19/0900
18 Feb 2236	ALERT: Geomagnetic K = 4	
18 Feb 2243	WARNING: Geomagnetic K = 5	18/2242 - 19/0300
19 Feb 0002	ALERT: Geomagnetic K = 5	
19 Feb 0149	ALERT: Geomagnetic K = 5	
19 Feb 0737	EXTENDED WARNING: Geomagnetic K = 4	18/2234 - 19/1500
19 Feb 0804	WARNING: Geomagnetic K = 5	19/0804 - 1500
19 Feb 2025	WARNING: Geomagnetic K = 4	19/2024 - 20/0600
19 Feb 2058	ALERT: Geomagnetic K = 4	
20 Feb 0837	ALERT: Type II Radio Emission	19/2338
20 Feb 0909	SUMMARY: 10cm Radio Burst	20/0444 - 0445
23 Feb 1931	ALERT: X-ray Flux exceeded M5	23/1925
23 Feb 2014	SUMMARY: X-ray Event exceeded X1	23/1922 - 1934



## 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
24 Feb	210	8	3	10 Mar	155	15	3
25	210	8	3	11	160	15	3
26	210	6	2	12	170	25	5
27	200	10	3	13	180	30	5
28	195	12	4	14	185	30	5
01 Mar	195	10	3	15	185	20	4
02	190	8	3	16	185	18	4
03	190	5	2	17	180	15	3
04	190	5	2	18	180	20	4
05	190	5	2	19	185	8	3
06	185	5	2	20	190	5	2
07	180	10	3	21	195	5	2
08	170	10	3	22	200	5	2
09	160	25	5				

### ***Energetic Events***

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux		Intensity	
									245	2695	II	IV
17 Feb	1507	1513	1523	M1.0	0.008	SF	S05W76	3992				
21 Feb	1205	1215	1219	M3.3	0.010	1B	N18E17	4000	110			
21 Feb	1431	1435	1439	M1.4	0.003	SN	N18E16	4000				
23 Feb	0200	0213	0223	M4.9	0.033			4001			120	
23 Feb	0954	0956	1001	M1.0	0.004			3998				
23 Feb	1147	1158	1207	M1.6	0.013			4001				
23 Feb	1618	1635	1651	M1.0	0.015	SN	S12W23	3998				
23 Feb	1922	1927	1934	X2.0	0.086			4001	3600		180	

### ***Flare List***

Date	Time			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
17 Feb	0149	0158	0205	C2.2			3998
17 Feb	0216	0228	0234	C3.6			3998
17 Feb	0255	0300	0306	C2.2			3992
17 Feb	0358	0401	0408	C2.7			3998
17 Feb	0424	0446	0456	C5.9			3992
17 Feb	0726	0736	0744	C2.6			3992
17 Feb	0807	0818	0830	C2.9			3998
17 Feb	1143	1152	1202	C3.9			3998
17 Feb	1332	1340	1345	C3.9			3998
17 Feb	1446	1455	1507	C5.7	SN	N00E24	3997
17 Feb	1448	1454	1531		SF	S16E60	3998
17 Feb	1507	1513	1523	M1.0	SF	S05W76	3992
17 Feb	1546	1556	1631	C4.4	SF	S16E60	3998
17 Feb	1716	1720	1726		SF	S16E60	3998
17 Feb	1752	1802	1820		SF	S15E58	3998
17 Feb	1753	1753	1800		SF	S09W19	3990
17 Feb	1827	1833	1837	C2.2	SF	S15E58	3998
17 Feb	1935	1942	1946	C1.8	SF	S05W82	3992
17 Feb	2017	2022	2027	C1.6			3986
17 Feb	2140	2152	2204	C2.3			3998
17 Feb	2204	2212	2218	C2.1			3998
17 Feb	2330	2340	2357	C2.4			3998
18 Feb	0031	0035	0047	C2.2			3992



## *Flare List*

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
18 Feb	0047	0108	0126	C5.7			3990
18 Feb	0126	0130	0135	C5.2			3998
18 Feb	0358	0403	0407	C3.3			3998
18 Feb	0407	0412	0420	C3.7			3996
18 Feb	0745	0750	0755	C3.9			3992
18 Feb	1125	1133	1139	C1.6			3990
18 Feb	1200	1209	1215	C1.7			3990
18 Feb	1659	1710	1714	C3.0			3992
18 Feb	1714	1719	1724	C2.8			3992
18 Feb	1811	1817	1823	C1.8			3992
19 Feb	0355	0407	0427	C2.7			3992
19 Feb	1004	1016	1032	C3.4			3990
19 Feb	1041	1049	1058	C4.2			3997
19 Feb	1550	1558	1605	C1.5			3990
19 Feb	1929	1933	1938	C2.8	SF	S17E19	3996
19 Feb	2323	2345	2359	C8.1			3991
20 Feb	0236	0244	0255	C1.5			3990
20 Feb	0611	0617	0623	C1.5			3996
20 Feb	0834	0849	0903	C1.8			3996
20 Feb	1401	1408	1413	C1.9			3996
20 Feb	1453	1501	1505	C4.9			3996
20 Feb	2211	2220	2228	C2.2			3998
21 Feb	0756	0810	0824	C4.4	SF	S12E10	3998
21 Feb	1112	1119	1125	C5.8	SF	S09W70	3990
21 Feb	1205	1215	1219	M3.3	1B	N18E17	4000
21 Feb	1359	1401	1424		SF	S12E05	3998
21 Feb	1431	1435	1439	M1.4	SN	N18E16	4000
21 Feb	1449	1449	1454		SF	S13E06	3998
21 Feb	1521	1530	1543		SF	S13E06	3998
21 Feb	1530	1530	1537		SF	S17W06	3996
21 Feb	1552	1559	1603	C7.6	1N	S18W16	3996
21 Feb	1725	1725	1729		SF	S14W17	3996
21 Feb	1804	1807	1809		SF	N17E11	4000
21 Feb	1850	1859	1905	C3.6	SF	S08W73	3990
21 Feb	1942	1953	2002	C3.9			3998
21 Feb	2239	2248	2253	C4.8	SF	N19E12	4000
22 Feb	0015	0022	0027	C3.1			4000
22 Feb	0142	0148	0153	C3.2			3990



## *Flare List*

Date	Time			Optical			Rgn #
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	
22 Feb	0243	0306	0317	C8.1			4001
22 Feb	0317	0321	0325	C7.4			4000
22 Feb	0700	0705	0709	C3.3			3990
22 Feb	1052	1052	1054		SF	S15W28	3996
22 Feb	1300	1301	1306		SF	S13W06	3998
22 Feb	1344	1348	1355		SF	S11W10	3998
22 Feb	1640	1644	1650	C3.2	SF	S11W10	3998
22 Feb	1727	1732	1749	C2.6			
22 Feb	1825	1829	1833	C3.3			3998
22 Feb	1833	1845	1855	C3.9			
22 Feb	1841	1844	1901		SF	S12W11	3998
22 Feb	1942	1948	1953	C2.9	SF	S12W11	3998
22 Feb	2001	2009	2014	C4.0			3998
22 Feb	2017	2021	2034	C3.7			3998
22 Feb	2046	2049	2054	C3.5			3998
22 Feb	2055	2107	2122	C8.3			4001
22 Feb	2149	2155	2200	C5.7	SF	S12W11	3998
22 Feb	2228	2233	2239		SF	S12W11	3998
22 Feb	2248	2248	2303		SF	S11W16	3998
22 Feb	2304	2305	2312		SF	S11W16	3998
22 Feb	2313	2316	2322		SF	S11W16	3998
23 Feb	0039	0048	0054	C4.6			3998
23 Feb	0200	0213	0223	M4.9			4001
23 Feb	0431	0450	0522	C6.2			3998
23 Feb	0901	0914	0922	C7.5			3998
23 Feb	0954	0956	1001	M1.0			3998
23 Feb	1147	1158	1207	M1.6			4001
23 Feb	1507	1512	1516	C5.3	SN	S11W24	3998
23 Feb	1618	1635	1651	M1.0	SN	S12W23	3998
23 Feb	1717	1721	1731	C9.5	SF	S12W23	3998
23 Feb	1902	1907	1913	C5.4	SF	S12W24	3998
23 Feb	1922	1927	1934	X2.0			4001
23 Feb	1954	1955	1958		SF	N17E67	
23 Feb	2138	2142	2147	C5.0	SF	S10W24	3998
23 Feb	2151	2151	2159		SF	S11W28	3998



### ***Region Summary***

	Location		Sunspot Characteristics					Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10 <sup>-6</sup> hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
Region 3986															
05 Feb	N05E69	254	50	3	Hsx	1	A								
06 Feb	N06E56	254	50	2	Hsx	1	A								
07 Feb	N06E42	254	170	3	Hsx	1	A	2							
08 Feb	N06E27	256	170	3	Hsx	1	A								
09 Feb	N06E15	255	140	3	Hsx	2	A								
10 Feb	N06W00	257	140	3	Hsx	2	A								
11 Feb	N06W15	259	150	3	Hsx	2	A								
12 Feb	N06W30	261	140	3	Hsx	2	A								
13 Feb	N06W44	261	120	2	Hsx	1	A								
14 Feb	N06W51	255	70	3	Hsx	1	A								
15 Feb	N06W62	253	80	2	Hsx	1	A								
16 Feb	N05W76	254	90	3	Hsx	1	A								
17 Feb	N06W90	254	80	3	Hsx	1	A	1							
								3	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 257

<b><i>Region 3987</i></b>															
06 Feb	S09E65	245	30	2	Hsx	1	A								
07 Feb	S09E50	246	20	2	Hrx	2	A								
08 Feb	S09E36	247	20	2	Hrx	2	A								
09 Feb	S09E24	246	10	3	Hrx	3	A				1				
10 Feb	S09E10	247	10	3	Bxo	2	B								
11 Feb	S09W04	248	10	6	Bxo	6	B								
12 Feb	S09W18	249	plage												
13 Feb	S09W33	250	plage												
14 Feb	S07W47	251	plage												
15 Feb	S07W61	252	plage								1				
16 Feb	S07W75	253	plage												
17 Feb	S07W89	254	plage												
								0	0	0	2	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 248





### *Region Summary - continued*

Date	Location		Sunspot Characteristics					Flares							
	Lat CMD	Helio	Area 10 <sup>-6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
		Lon						C	M	X	S	1	2	3	4
<i>Region 3989</i>															
09 Feb	N18E64	206	120	2	Hsx	1	A								
10 Feb	N18E50	207	160	2	Hsx	1	A								
11 Feb	N18E36	208	170	3	Hsx	1	A								
12 Feb	N18E22	209	200	3	Hsx	1	A								
13 Feb	N18E07	210	250	3	Hhx	1	A	1							
14 Feb	N18W00	204	250	3	Hhx	1	A	1							
15 Feb	N18W14	205	270	3	Hhx	1	A								
16 Feb	N18W28	206	270	3	Hhx	1	A								
17 Feb	N19W39	204	250	3	Hhx	1	A								
18 Feb	N19W53	205	250	3	Hhx	1	A								
19 Feb	N19W65	203	250	3	Hhx	1	A								
20 Feb	N19W79	204	250	3	Hhx	1	A								
21 Feb	N19W93	205	250	3	Hhx	1	A								
								2	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 204

### **Region 3990**

10 Feb	S09E68	189	220	3	Cao	3	B								
11 Feb	S09E54	190	260	6	Dko	3	BG	1							
12 Feb	S09E40	191	260	7	Dko	7	BG	1							
13 Feb	S09E26	191	310	9	Cki	7	BG	3			5				
14 Feb	S10E13	191	310	7	Dki	8	BG		2		2	1			
15 Feb	S09W00	191	310	13	Cki	18	BG	1							
16 Feb	S08W14	192	280	14	Cki	42	BG								
17 Feb	S09W23	188	250	11	Cko	17	BG				1				
18 Feb	S09W37	189	250	11	Cko	12	BG	3							
19 Feb	S09W50	188	250	3	Cko	6	B	2							
20 Feb	S09W64	189	250	3	Cko	6	B	1							
21 Feb	S09W78	190	120	3	Cso	3	B	2			2				
22 Feb	S09W91	190	120	3	Cso	2	B	2							
								16	2	0	10	1	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 191



### *Region Summary - continued*

	Location	Sunspot Characteristics						Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10 <sup>-6</sup> hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
Region 3991															
11 Feb	S12E70	174	30	1	Hsx	1	A	1							
12 Feb	S12E58	173	30	7	Cso	3	B								
13 Feb	S12E44	173	20	2	Hrx	2	A								
14 Feb	S12E31	173	20	1	Hrx	1	A								
15 Feb	S13E17	174	10	2	Axx	2	A								
16 Feb	S13E03	175	20	4	Cro	6	B								
17 Feb	S14W10	175	10	1	Axx	1	A								
18 Feb	S14W24	176	plage												
19 Feb	S14W38	176	plage					1							
20 Feb	S14W52	177	plage												
21 Feb	S14W66	178	plage												
22 Feb	S13W78	176	10	5	Axx	2	A								
23 Feb	S09W85	171	10	4	Cro	3	B								
								2	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 175

### **Region 3992**

12 Feb	S06W11	242	150	6	Dai	11	BG	2							
13 Feb	S06W26	243	210	9	Dai	16	BG	2	1		5				
14 Feb	S07W40	244	90	12	Eai	11	BG								
15 Feb	S05W54	245	60	11	Eao	7	BG	1							
16 Feb	S05W67	245	70	14	Eao	5	BG	3							
17 Feb	S06W81	246	90	14	Eai	17	BG	4	1		2				
18 Feb	S06W96	248	90	14	Eai	17	BG	5							
								17	2	0	7	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 242



### *Region Summary - continued*

	Location		Sunspot Characteristics					Flares							
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
Date	Lat CMD	Lon	10 <sup>-6</sup> hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
Region 3993															
13 Feb	N15E74	143	250	5	Hhx	1	A								
14 Feb	N15E61	143	220	4	Hhx	1	A								
15 Feb	N16E47	144	220	4	Hsx	2	A								
16 Feb	N15E34	144	210	4	Hsx	3	A	1							
17 Feb	N15E24	141	250	3	Hhx	2	A								
18 Feb	N15E10	142	250	3	Hhx	1	A								
19 Feb	N15W04	142	250	3	Hhx	1	A								
20 Feb	N15W18	143	250	3	Cho	3	B								
21 Feb	N15W32	144	170	3	Cso	3	B								
22 Feb	N15W45	144	180	3	Hax	1	A								
23 Feb	N15W58	144	180	3	Hsx	1	A								
								1	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 142

### **Region 3994**

13 Feb	S21E10	207	30	4	Dro	3	B								
14 Feb	S19W04	208	30	3	Dao	3	B	2			2	1			
15 Feb	S19W18	209	30	5	Cro	6	B								
16 Feb	S21W32	208	40	5	Cao	9	B								
17 Feb	S19W46	211	10	3	Bxo	4	B								
18 Feb	S19W60	212	5	1	Axx	1	A								
19 Feb	S19W74	212	5	1	Axx	1	A								
20 Feb	S19W88	213	5	1	Axx	1	A								
								2	0	0	2	1	0	0	0

Crossed West Limb.

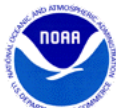
Absolute heliographic longitude: 208

### **Region 3995**

14 Feb	S22W30	234	30	3	Cro	5	B								
15 Feb	S22W44	235	20	5	Cso	2	B								
16 Feb	S23W58	236	40	2	Cao	2	B								
17 Feb	S21W74	239	30	1	Hrx	1	A								
18 Feb	S21W88	240	30	2	Hrx	1	A								
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 234



### *Region Summary - continued*

Date	Location	Sunspot Characteristics						Flares							
	Lat CMD	Helio	Area 10 <sup>-6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
		Lon						C	M	X	S	1	2	3	4
Region 3996															
15 Feb	S11E65	126	90	11	Eso	9	B	4							
16 Feb	S17E51	127	100	11	Eai	17	BG	1							
17 Feb	S16E39	126	350	13	Eko	21	BG								
18 Feb	S16E25	127	360	14	Eki	18	BG	1							
19 Feb	S16E11	127	330	15	Eki	12	BG	1			1				
20 Feb	S16W03	128	330	17	Fko	8	BG	4							
21 Feb	S16W17	129	330	17	Fko	8	B	1			2	1			
22 Feb	S16W33	132	230	17	Fao	12	B				1				
23 Feb	S16W47	133	220	17	Fao	5	B								
								12	0	0	4	1	0	0	0

Still on Disk.

Absolute heliographic longitude: 128

### **Region 3997**

14 Feb	N03E57	149	plage					1							
15 Feb	N03E42	149	30	6	Cao	5	B	1			1				
16 Feb	N03E28	150	40	6	Cai	56	B	1							
17 Feb	N03E16	149	50	6	Cai	10	B	1			1				
18 Feb	N03E03	149	30	6	Cao	8	B								
19 Feb	N03W10	148	10	4	Bxo	3	B	1							
20 Feb	N03W25	150	10	4	Bxo	3	B								
21 Feb	N03W40	152	10	4	Bxo	2	B								
22 Feb	N03W55	154	plage												
23 Feb	N03W70	156	plage												
								5	0	0	2	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 149



### *Region Summary - continued*

Date	Location	Sunspot Characteristics						Flares							
	Lat CMD	Helio	Area 10 <sup>-6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
		Lon						C	M	X	S	1	2	3	4
Region 3998															
15 Feb	S14E81	111	plage					1							
16 Feb	S14E66	112	90	6	Cao	4	B	3			1				
17 Feb	S14E54	111	150	7	Dai	16	BD	11			5				
18 Feb	S14E40	112	170	8	Dai	19	BD	2							
19 Feb	S14E26	112	200	10	Dai	12	BD								
20 Feb	S14E12	113	220	10	Dai	18	BG	1							
21 Feb	S14W02	114	220	11	Eai	22	BGD	2			4				
22 Feb	S14W14	113	280	13	Eki	28	BG	7			10				
23 Feb	S14W28	114	290	13	Ekc	28	BG	7	2		6				
								34	2	0	26	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 114

#### **Region 3999**

16 Feb	N05E53	125	20	4	Cro	5	B								
17 Feb	N06E38	127	30	6	Cro	7	B								
18 Feb	N06E23	129	30	7	Cro	9	B								
19 Feb	N06E10	128	20	6	Cro	3	B								
20 Feb	N06W05	130	20	6	Cro	3	B								
21 Feb	N06W20	132	20	6	Cro	3	B								
22 Feb	N04W33	132	10	2	Bxo	3	B								
23 Feb	N04W48	134	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 130

#### **Region 4000**

21 Feb	N17E07	104	120	6	Dai	16	B	1	2		3				
22 Feb	N17W06	105	180	9	Dai	20	BGD	2							
23 Feb	N17W20	106	180	9	Dai	20	BGD								
								3	2	0	3	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 105

#### **Region 4001**

22 Feb	N24W76	175	40	3	Cao	3	B	2							
23 Feb	N24W90	176	50	4	Dai	4	B		2	1					
								2	2	1	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 175



### *Region Summary - continued*

Date	Location		Sunspot Characteristics					Flares							
	Lat CMD	Helio Lon	Area 10 <sup>-6</sup> hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
								C	M	X	S	1	2	3	4

#### *Region 4002*

22 Feb	N13E20	79	20	3	Cro	6	B								
23 Feb	N13E06	80	20	4	Cro	6	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 80

#### *Region 4003*

22 Feb	N10E49	50	10	3	Bxo	2	B								
23 Feb	N10E35	51	10	3	Bxo	2	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 51

#### *Region 4004*

22 Feb	S15E71	27	30	2	Hsx	1	A								
23 Feb	S15E57	29	30	2	Hsx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 29

#### *Region 4005*

22 Feb	S05E54	44	10	3	Cro	2	B								
23 Feb	S05E39	47	10	3	Cro	2	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 47

#### *Region 4006*

22 Feb	N17E71	27	110	6	Dao	3	B								
23 Feb	N17E57	29	150	6	Dai	4	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 29



## ***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.  
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