

Solar activity was at minor storm levels with five M-class flares observed from three different regions. Region 3998 (S14, L=115, class/area Ekc/430 on 24 Feb) produced an M1.3 at 25/0247 UTC and an M3.6/1f at 25/1159 UTC. The M3.6 flare had associated Type II (est. 630 km/s) and Type IV radio sweeps. Region 4000 (N17, L=107, class/area Dai/180 on 24 Feb) also contributed two M-flares: an M3.2 at 24/0702 UTC and an M1.5/1n at 24/2101 UTC. The M3 flare had an associated Type II radio sweep (est. 677 km/s). Finally, Region 4001 (N24, L=176, class/area Dai/050 on 23 Feb) added an M1.3 flare at 24/0146 UTC. On 28 Feb, a Type II radio sweep (est. 1151 km/s) was observed and was attributed to what was likely Region 4001 that had rotated beyond the west limb. On 01 Mar, a large filament channel erupted from the SE quadrant of the solar disk. At the end of the day, a then unnumbered region in the SE produced a C9.5 flare. The associated CMEs were modeled and are expected to arrive at Earth by midday on 04 Mar.

The greater than 10 MeV proton flux levels exceeded the 10 pfu threshold (S1-minor) on 25 Feb at 0020 UTC and reached a peak of 37 pfu at 0240 UTC. Conditions were below the 10 pfu threshold on 24 Feb and 26 Feb-02 Mar.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels on 24 Feb - 01 Mar and high levels on 02 Mar, reaching 1,460 pfu at 1715 UTC.

Geomagnetic field activity reached major storm levels (G2-moderate) on 27 Feb, with minor storm levels (G1-minor) observed on 28 Feb as positive polarity CH HSS influences dominated the solar wind environment. Unsettled to active conditions were observed on 26 Feb and 01 Mar as +CH HSS effects bookended the four day high speed wind event. Quiet conditions were prevalent on 02 Mar.

### **Space Weather Outlook** **03 March - 29 March 2025**

Solar activity is expected to be at low to moderate levels, with a chance for periodic high levels, throughout the period as returning magnetically complex regions transit then depart the solar disk on 03 -29 Mar.

There is a chance for isolated minor solar radiation storm levels throughout the period if any of the returning/developing magnetically complex regions are active and produce an event.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be normal to moderate levels on 06-09 and 19-28 Mar. High levels are anticipated on 03-05, 10-18, and 29 Mar in response to recurrent CH HSS influence.

Geomagnetic field activity is expected to be at quiet to unsettled levels on 03-09, 19-24, and 29



Mar. Active levels are expected on 10-18 and 25-28 Mar with possible G1 conditions on 12-15 Mar, associated with recurrent negative polarity CH HSS influences, and again on 26-27 Mar, associated with recurrent positive polarity CH HSS effects.



### ***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
24 February	203	182	1410	C2.4	4	4	0	1	1	0	0	0
25 February	190	155	1290	C2.8	2	2	0	6	1	0	0	0
26 February	180	123	1000	C1.6	6	0	0	1	0	0	0	0
27 February	170	129	830	C1.5	4	0	0	0	0	0	0	0
28 February	155	104	290	C1.7	9	0	0	4	0	0	0	0
01 March	145	105	410	C1.1	7	0	0	2	0	0	0	0
02 March	140	139	520	B8.1	9	0	0	2	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	
24 February	2.7e+06	6.3e+04	1.6e+06	
25 February	1.9e+07	1.0e+06	1.2e+06	
26 February	1.2e+07	1.9e+05	1.1e+06	
27 February	1.8e+06	4.3e+04	2.6e+06	
28 February	3.2e+06	2.0e+04	8.5e+06	
01 March	1.9e+06	1.7e+04	1.9e+07	
02 March	1.6e+06	1.8e+04	4.6e+07	

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

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
24 February	10	3-1-2-2-3-2-3-2	17	1-0-0-5-4-3-4-3	14	3-1-1-3-3-2-4-3
25 February	11	0-0-0-0-0-0-2-3	11	0-0-0-0-0-0-3-2	9	2-2-2-2-1-2-3-3
26 February	13	2-3-2-2-4-3-3-2	33	1-4-3-6-4-5-5-3	16	3-4-3-3-3-3-3-2
27 February	24	3-3-3-5-4-4-3-4	54	3-5-4-7-6-6-4-3	33	4-4-3-6-4-5-3-4
28 February	21	4-3-3-3-5-4-3-2	51	4-4-5-6-6-6-5-3	32	5-4-4-4-5-5-4-3
01 March	11	1-3-3-3-3-2-2-2	41	2-4-7-6-5-2-3-2	19	2-4-4-4-4-2-3-3
02 March	5	1-1-2-1-2-2-2-1	5	2-1-2-3-2-0-0-0	7	2-2-2-2-2-1-1-1



### *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>
24 Feb 0222	WARNING: Geomagnetic K = 4	24/0222 - 1200
24 Feb 0722	ALERT: Type II Radio Emission	24/0703
24 Feb 1325	WARNING: Geomagnetic K = 4	24/1325 - 2359
24 Feb 2004	ALERT: Geomagnetic K = 4	
24 Feb 2010	WARNING: Geomagnetic K = 5	24/2010 - 2359
24 Feb 2231	ALERT: Type II Radio Emission	24/2209
24 Feb 2242	ALERT: Type IV Radio Emission	24/2220
24 Feb 2338	WARNING: Proton 10MeV Integral Flux > 10pfu	24/2338 - 25/1200
24 Feb 2357	EXTENDED WARNING: Geomagnetic K = 4	24/1325 - 25/1500
25 Feb 0028	ALERT: Proton Event 10MeV Integral Flux >= 10pfu	25/0020
25 Feb 1149	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	24/2338 - 25/2100
25 Feb 1231	ALERT: Type II Radio Emission	25/1145
25 Feb 1231	ALERT: Type IV Radio Emission	25/1139
25 Feb 1232	SUMMARY: 10cm Radio Burst	25/1136 - 1149
25 Feb 1447	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	24/2338 - 25/2359
25 Feb 2326	WARNING: Geomagnetic K = 4	25/2325 - 26/0600
25 Feb 2343	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	24/2338 - 26/1200
26 Feb 0432	WARNING: Geomagnetic K = 4	26/0431 - 1500
26 Feb 0602	ALERT: Geomagnetic K = 4	
26 Feb 1203	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	25/0020 - 1115
26 Feb 1454	EXTENDED WARNING: Geomagnetic K = 4	26/0431 - 2359
27 Feb 0101	WARNING: Geomagnetic K = 4	27/0101 - 1200
27 Feb 0222	ALERT: Geomagnetic K = 4	
27 Feb 1047	EXTENDED WARNING: Geomagnetic K = 4	27/0101 - 2100
27 Feb 1053	WARNING: Geomagnetic K = 5	27/1052 - 1800
27 Feb 1057	ALERT: Geomagnetic K = 5	
27 Feb 1109	WARNING: Geomagnetic K = 6	27/1108 - 1500

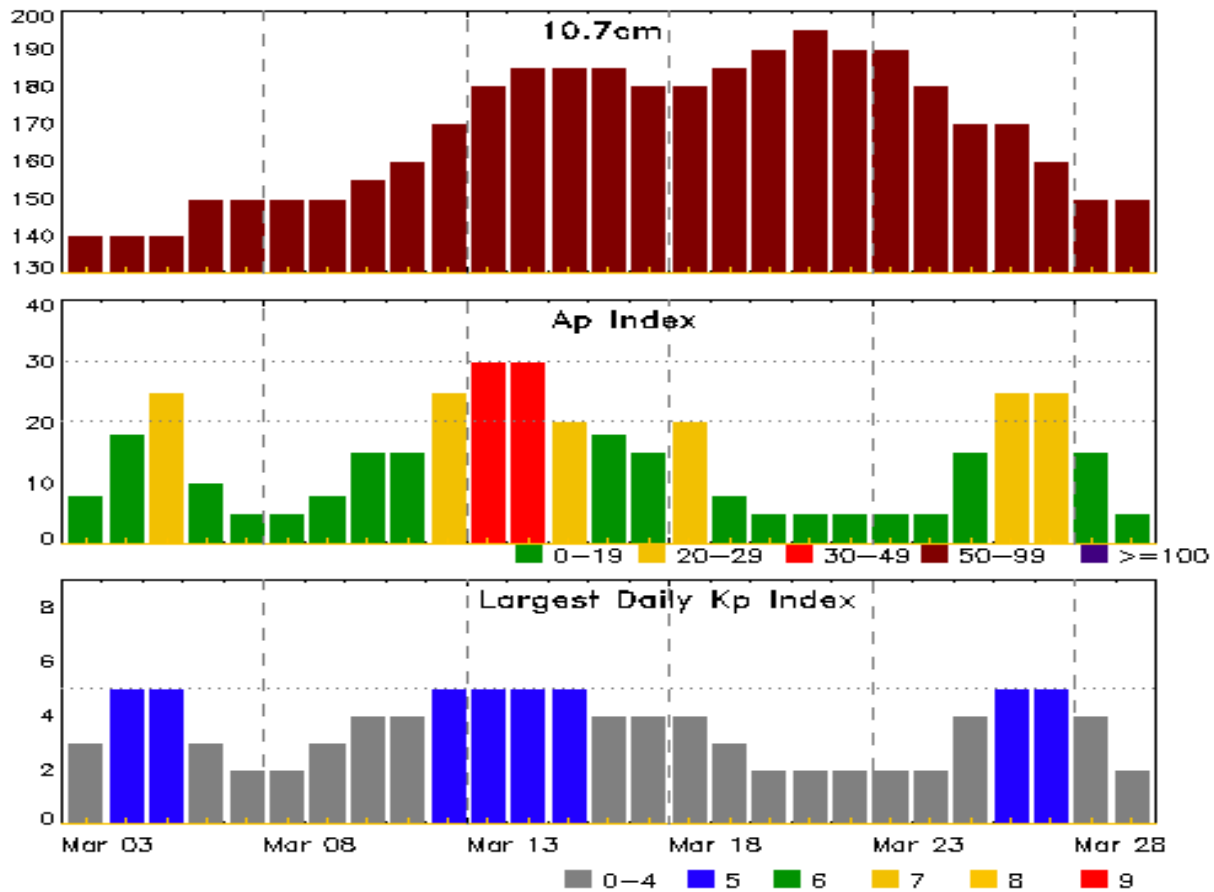


### *Alerts and Warnings Issued*

<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
27 Feb 1114	ALERT: Geomagnetic K = 6	
27 Feb 1738	EXTENDED WARNING: Geomagnetic K = 5	27/1052 - 2359
27 Feb 1742	EXTENDED WARNING: Geomagnetic K = 4	27/0101 - 28/1500
27 Feb 1802	ALERT: Geomagnetic K = 5	
27 Feb 2356	EXTENDED WARNING: Geomagnetic K = 5	27/1052 - 28/0600
28 Feb 0217	ALERT: Geomagnetic K = 5	
28 Feb 0554	EXTENDED WARNING: Geomagnetic K = 5	27/1052 - 28/1500
28 Feb 1417	EXTENDED WARNING: Geomagnetic K = 4	27/0101 - 01/2100
28 Feb 1419	EXTENDED WARNING: Geomagnetic K = 5	27/1052 - 01/1200
28 Feb 1500	ALERT: Geomagnetic K = 5	
28 Feb 1718	ALERT: Type II Radio Emission	28/1700
28 Feb 1757	ALERT: Geomagnetic K = 5	
01 Mar 2055	EXTENDED WARNING: Geomagnetic K = 4	27/0101 - 01/1200
01 Mar 2111	EXTENDED WARNING: Geomagnetic K = 4	27/0101 - 02/1200
02 Mar 0522	WATCH: Geomagnetic Storm Category G1 predicted	
02 Mar 1548	ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	02/1510



## 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
03 Mar	140	8	3	17 Mar	180	15	4
04	140	18	5	18	180	20	4
05	140	25	5	19	185	8	3
06	150	10	3	20	190	5	2
07	150	5	2	21	195	5	2
08	150	5	2	22	190	5	2
09	150	8	3	23	190	5	2
10	155	15	4	24	180	5	2
11	160	15	4	25	170	15	4
12	170	25	5	26	170	25	5
13	180	30	5	27	160	25	5
14	185	30	5	28	150	15	4
15	185	20	5	29	150	5	2
16	185	18	4				

### ***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
24 Feb	0133	0146	0155	M1.3	0.002			4001	120			
24 Feb	0653	0702	0708	M3.3	0.015			4000	23000	110	2	
24 Feb	2051	2101	2109	M1.5	0.010	1N	N16W30	4000	110			
24 Feb	2150	2302	0019	M3.9	0.260				3200		2	2
25 Feb	0243	0247	0254	M1.3	0.008			3998				
25 Feb	1120	1159	1244	M3.6	0.130	1F	S13W51	3998	140	240	2	1

### ***Flare List***

Date	Time			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
24 Feb	0133	0146	0155	M1.3			4001
24 Feb	0637	0647	0653	C5.8			3998
24 Feb	0653	0702	0708	M3.3			4000
24 Feb	1134	1144	1202	C6.2			3998
24 Feb	1302	1320	1333	C8.7			3998
24 Feb	1521	1543	1609		SF	S15W36	3998
24 Feb	2051	2101	2109	M1.5	1N	N16W30	4000
24 Feb	2131	2140	2150	C8.1			3998
24 Feb	2150	2302	0019	M3.9			
25 Feb	0243	0247	0254	M1.3			3998
25 Feb	1120	1159	1244	M3.6	1F	S13W51	3998
25 Feb	B1242	U1248	A1359		SF	S17W52	3996
25 Feb	1752	1758	1802	C4.2			3998
25 Feb	1806	1810	1817	C4.1			4000
25 Feb	2227	2227	2236		SF	S12E41	4007
25 Feb	2240	2244	2246		SF	S14E39	4007
25 Feb	2247	2247	2258		SF	S14E38	4007
25 Feb	2258	2300	2303		SF	S13W81	3996
25 Feb	2307	2307	2321		SF	N15E14	4003
26 Feb	0336	0345	0355	C3.6			4007
26 Feb	1145	1156	1203	C4.3			
26 Feb	1232	1242	1248	C5.7			4007
26 Feb	1426	1429	1435	C2.9			3998
26 Feb	1833	1850	1903	C4.4	SF	S11W65	3998
26 Feb	2237	2247	2258	C3.5			3996



## *Flare List*

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
27 Feb	0616	0634	0653	C5.7			3998
27 Feb	0811	0817	0829	C2.4			3998
27 Feb	1223	1236	1247	C7.5			3998
27 Feb	2312	2324	2334	C9.3			3998
28 Feb	0104	0107	0111	C2.2			3998
28 Feb	0717	0730	0732	C3.4			3998
28 Feb	0732	0741	0746	C4.9			
28 Feb	1007	1019	1028	C4.0			3998
28 Feb	1259	1311	1321	C4.3	SF	S11E02	4007
28 Feb	1618	1628	1633	C5.2			4006
28 Feb	1817	1823	1835	C2.5	SF	S08W01	4007
28 Feb	1916	1925	1934	C3.3			3998
28 Feb	2001	2013	2029	C2.8			4006
28 Feb	2317	2322	2335		SF	N18W04	4006
28 Feb	2338	2340	2354		SF	N18W04	4006
01 Mar	0723	0723	0738		SF	N16W09	4006
01 Mar	0820	0830	0836	C6.4	SF	N21E27	4010
01 Mar	0923	0931	0935	C2.7			4006
01 Mar	1007	1017	1024	C2.7			4009
01 Mar	1043	1057	1105	C2.5			4006
01 Mar	1312	1323	1328	C2.3			4007
01 Mar	1430	1439	1448	C2.3			4009
01 Mar	2244	2301	2317	C9.5			
02 Mar	0054	0102	0110	C1.7			4011
02 Mar	0337	0350	0358	C2.4			4011
02 Mar	0408	0415	0424	C1.8			4011
02 Mar	0743	0751	0759	C1.1			4011
02 Mar	0926	0938	0949	C2.9			4011
02 Mar	1318	1322	1328	C1.2			
02 Mar	1420	1418	1427		SF	S18E53	4011
02 Mar	1818	1828	1843	C1.1			
02 Mar	2041	2051	2057	C1.8			4007
02 Mar	2049	2108	2132	C2.4	SF	S09W27	4007





## 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 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

Crossed West Limb.

Absolute heliographic longitude: 175

<b>Region 3993</b>															
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								
24 Feb	N15W72	145	140	3	Hsx	1	A								
25 Feb	N15W86	145	120	3	Hsx	1	A								
								1	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 142



### *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								
24 Feb	S16W61	134	180	17	Fao	3	B								
25 Feb	S16W73	132	180	17	Fso	3	B				2				
26 Feb	S16W87	133	140	17	Fso	3	B	1							
								13	0	0	6	1	0	0	0

Crossed West Limb.

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												
24 Feb	N03W85	158	plage												
								5	0	0	2	0	0	0	0

Crossed West Limb.

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				
24 Feb	S14W42	115	430	13	Ekc	34	BGD	4			1				
25 Feb	S14W56	115	400	12	Ekc	28	BGD	1	2			1			
26 Feb	S14W70	116	320	12	Ekc	22	BG	2			1				
27 Feb	S14W84	117	320	12	Ekc	22	BG	4							
								45	4	0	28	1	0	0	0

Crossed West Limb.

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												
24 Feb	N11W61	134	20	2	Cro	2	B								
25 Feb	N11W75	134	10	3	Bxo	2	B								
26 Feb	N11W89	135	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 130



### *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
<i>Region 4000</i>															
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								
24 Feb	N17W34	107	180	9	Dai	20	BGD		2			1			
25 Feb	N17W48	107	140	9	Dai	14	BG	1							
26 Feb	N17W62	108	100	9	Cai	11	BG								
27 Feb	N17W76	109	100	9	Cai	11	BG								
28 Feb	N17W90	110	plage												
								4	4	0	3	1	0	0	0

Crossed West Limb.

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

Crossed West Limb.

Absolute heliographic longitude: 175

#### **Region 4002**

22 Feb	N13E20	79	20	3	Cro	6	B								
23 Feb	N13E06	80	20	4	Cro	6	B								
24 Feb	N13W08	81	10	4	Bxo	6	B								
25 Feb	N13W22	81	plage												
26 Feb	N13W36	82	plage												
27 Feb	N14W45	78	10	3	Bxo	3	B								
28 Feb	N13W58	78	10	3	Bxo	3	B								
01 Mar	N16W68	75	20	4	Cao	4	B								
02 Mar	N16W79	72	20	4	Cao	3	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 80



### *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 4003*

22 Feb	N10E49	50	10	3	Bxo	2	B								
23 Feb	N10E35	51	10	3	Bxo	2	B								
24 Feb	N10E21	52	plage												
25 Feb	N10E07	52	plage								1				
26 Feb	N10W07	53	plage												
27 Feb	N10W21	54	plage												
28 Feb	N10W35	55	plage												
01 Mar	N10W49	56	plage												
02 Mar	N10W63	56	plage												
								0	0	0	1	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 52

#### *Region 4004*

22 Feb	S15E71	27	30	2	Hsx	1	A								
23 Feb	S15E57	29	30	2	Hsx	1	A								
24 Feb	S15E43	30	20	2	Hrx	1	A								
25 Feb	S15E30	29	10	1	Hrx	1	A								
26 Feb	S15E16	30	10	1	Hrx	1	A								
27 Feb	S15E09	24	10	5	Bxo	3	B								
28 Feb	S14W07	24	10	2	Axx	2	A								
01 Mar	S15W17	24	10	1	Axx	1	A								
02 Mar	S15W28	21	10	2	Axx	2	A								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 24



### *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 4005*

22 Feb	S05E54	44	10	3	Cro	2	B								
23 Feb	S05E39	47	10	3	Cro	2	B								
24 Feb	S05E25	48	10	1	Axx	1	A								
25 Feb	S05E10	49	plage												
26 Feb	S05W05	51	plage												
27 Feb	S05W20	53	plage												
28 Feb	S05W35	55	plage												
01 Mar	S05W50	57	plage												
02 Mar	S05W65	58	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 51

#### *Region 4006*

22 Feb	N17E71	27	110	6	Dao	3	B								
23 Feb	N17E57	29	150	6	Dai	4	B								
24 Feb	N18E47	26	380	10	Dhi	10	B								
25 Feb	N18E33	26	380	10	Dko	10	BG								
26 Feb	N18E19	27	380	10	Dki	10	BG								
27 Feb	N18E05	28	350	10	Dki	16	BG								
28 Feb	N18W05	26	180	10	Dai	14	BG	2			2				
01 Mar	N20W16	23	150	12	Eao	10	B	2			1				
02 Mar	N19W35	28	50	7	Cao	10	B								
								4	0	0	3	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 28

#### *Region 4007*

24 Feb	S12E48	25	40	5	Cao	4	B								
25 Feb	S12E34	25	30	5	Cao	5	B				3				
26 Feb	S12E20	26	30	5	Cao	5	B	2							
27 Feb	S12E06	27	20	5	Cro	3	B								
28 Feb	S11W05	26	30	4	Dro	5	B	2			2				
01 Mar	S10W18	25	70	6	Dao	7	B	1							
02 Mar	S10W31	24	150	6	Dao	8	B	2			1				
								7	0	0	6	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 26



### *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 4008*

25 Feb	N05E65	354	20	2	Hsx	1	A								
26 Feb	N05E50	356	20	2	Hsx	1	A								
27 Feb	N05E35	358	20	2	Hsx	1	A								
28 Feb	N05E26	355	20	2	Hrx	1	A								
01 Mar	N05E11	356	20	2	Hrx	1	A								
02 Mar	N05W02	355	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 355

#### *Region 4009*

28 Feb	N11E24	356	20	3	Dao	5	B								
01 Mar	N11E10	357	130	7	Dso	8	B	2							
02 Mar	N12W06	359	150	7	Dao	12	B								
								2	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 359

#### *Region 4010*

28 Feb	N24E35	345	20	5	Cro	4	B								
01 Mar	N24E19	348	10	5	Bxo	4	B	1			1				
02 Mar	N25E07	346	10	7	Bxo	2	B								
								1	0	0	1	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 346

#### *Region 4011*

02 Mar	S19E44	309	20	3	Cao	4	B	5			1				
								5	0	0	1	0	0	0	0

Still on Disk.

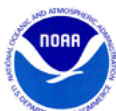
Absolute heliographic longitude: 309

#### *Region 4012*

02 Mar	S13E61	292	100	5	Dao	7	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 292



### ***Region Summary - continued***

Location		Sunspot Characteristics						Flares							
Date	Lat CMD	Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
		Lon	10 <sup>-6</sup> hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
		<i>Region 4013</i>													
02 Mar	S04E60	293	10	1	Axx	1	A	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 293





## ***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

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