Space Weather Highlights
24 March - 30 March 2025

SWPC PRF 2587
31 March 2025

Solar activity was low on 24-25 Mar, moderate on 26-27 Mar and 29 Mar, and high on 28 Mar and 30 Mar. High levels were reached on 28 Mar as the strongest event of the period, an X1.1 (R3-Strong) flare at 28/1521 UTC from yet-to-be-numbered Region 4046 (N05, L=301, class/area=Dho/270 on 30 Mar), was produced on the Sun's eastern limb. Associated with the event was a Type IV radio sweep and a Tenflare (380 sfu). The resulting fast-moving CME was analyzed and modelled. The results suggested the far flank of the CME would pass close, but ultimately miss Earth. High solar activity levels were again reached on 30 Mar due to frequent R1 flares from Region 4048 (S15, L=281, class/area=Eki/300 on 30 Mar). A total of six events were observed, the largest of which was an M1.6 (R1) flare at 30/1642 UTC.

Other activity included Type II radio sweeps on 25 Mar and 26 Mar. Both of these events were associated with non-Earth-directed CME events on or beyond the W. limb.

No proton events were observed at geosynchronous orbit. However, an increase above background was observed two days after the X1.1 flare at 28/1521 UTC from the Sun's eastern limb. Although delayed, the rise in proton flux is likely related to this event.

The greater than 2 MeV electron flux at geosynchronous orbit climbed to high levels on 27-30 Mar. This increase in electron flux was caused by the influence of a strong, positive polarity CH HSS, which began around 26 Mar.

Geomagnetic field activity ranged from quiet to G2 (Moderate) geomagnetic storms. Active conditions on 24 Mar were associated with the passage of a CME that left the Sun on 21 Mar. On 25 Mar active conditions were again observed due to the onset of CIR ahead of a positive polarity CH HSS. Geomagnetic activity increased to G2 (Moderate) levels on 26 Mar as total magnetic field strength reached a brief peak of 29 nT and the Bz component reached as far south as -27 nT. Wind speeds increased from above ~600 km/s on 26 Mar to above ~800 km/s on 27 Mar. The geomagnetic field responded with a mix of active to G1 (Minor) storm conditions. As total magnetic field strength and solar wind speeds declined on 28 Mar, geomagnetic conditions decreased to mostly unsettled to active levels. During the final waning stage of the positive polarity CH, an isolated period of active was last observed early on 29 Mar and only quiet conditions were observed over 30 Mar.

Space Weather Outlook
31 March - 26 April 2025

Solar activity will continue at a chance for R1-R2 (Minor-Moderate) throughout the outlook period due to multiple complex regions on the visible disk as well as on the Sun's farside that are likely to return. A slight chance exists for R3 (Strong) events over the next three days primarily due to the flare potential from complex regions in the Sun's eastern hemisphere.

No proton events are expected at geosynchronous orbit are likely to remain below the S1 (Minor)

solar radiation storm threshold (>10 MeV proton flux of 10 pfu).

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels on 31 Mar, 06-14 Apr, and 23-26 Apr in response to multiple, recurrent, CH HSSs. The remainder of the outlook period is expected to be at normal to moderate levels.

Geomagnetic field activity is expected to range from quiet to G2 (Moderate) geomagnetic storm conditions. G2 conditions are likely on 05 Apr and 09 Apr; G1 (Minor) conditions are likely over 04 Apr, 08 Apr, and 10 Apr, active conditions are likely over 11 Apr, 13 Apr, and 21-24 Apr; unsettled conditions are likely on 03 Apr, 06-07 Apr, 12 Apr, 14-15 Apr, 17-20 Apr, and 25-26 Apr. All increases in geomagnetic activity are anticipated in response to multiple, recurrent, CH HSSs. The remainder of the outlook period is likely to mostly quiet.

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
24 March	156	85	400	C1.0	6	0	0	5	0	0	0	0
25 March	156	58	440	C1.1	9	0	0	4	0	0	0	0
26 March	152	63	415	C1.2	8	1	0	0	0	0	0	0
27 March	153	72	180	C1.2	9	1	0	2	0	0	0	0
28 March	160	80	440	C1.2	4	3	1	1	0	0	0	0
29 March	157	107	560	C1.4	15	2	0	1	0	0	0	0
30 March	171	111	810	C1.4	12	6	0	12	2	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
24 March	3.7e+05	1.6e+04	3.8e+06
25 March	6.5e+05	1.5e+04	2.8e+06
26 March	2.1e+06	1.6e+04	1.8e+06
27 March	2.0e+07	1.7e+04	7.8e+06
28 March	9.3e+06	1.7e+04	7.0e+07
29 March	3.1e+06	1.9e+04	1.3e+08
30 March	2.0e+06	5.4e+04	1.5e+08

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
24 March	18	4-4-2-3-5-2-2-1	29	2-4-4-6-5-4-2-2	19	4-4-3-4-4-3-2-2
25 March	13	3-2-3-3-3-2-3-3	29	2-3-4-6-3-5-4-3	15	3-2-3-3-2-3-4-3
26 March	26	4-3-2-2-5-4-5-4	43	4-4-2-4-6-6-5-5	46	5-4-2-3-6-6-6-5
27 March	20	3-3-4-3-4-4-3-3	47	4-3-6-5-6-6-4-3	33	4-5-5-4-5-5-4-4
28 March	13	2-3-3-2-3-4-2-2	18	3-2-4-4-4-3-2-3	16	3-3-3-2-3-3-3-4
29 March	10	3-3-1-3-3-2-2-1	6	3-3-1-2-1-2-0-0	9	3-4-2-2-2-1-1-1
30 March	8	2-2-3-2-2-2-2-1	5	2-1-2-1-2-1-1-1	7	2-2-3-2-1-1-1-1

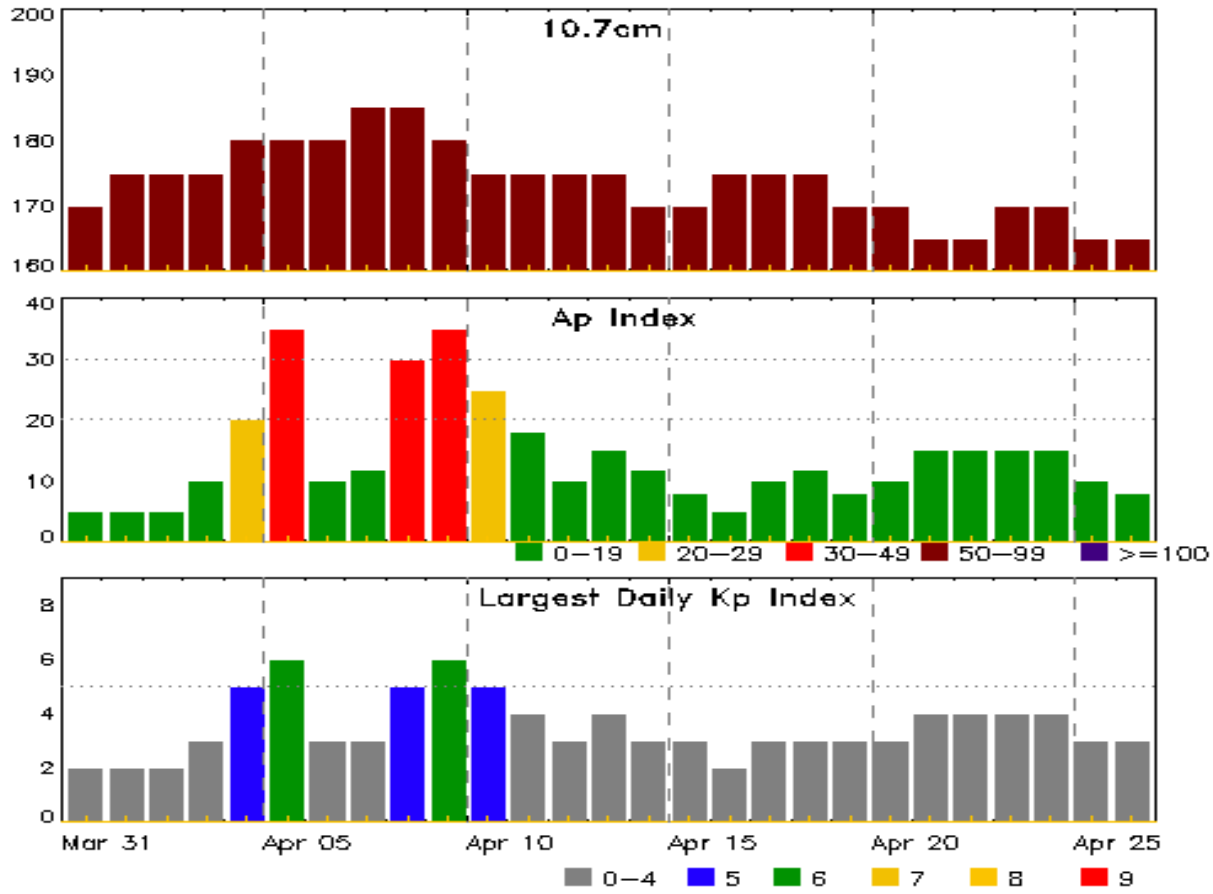
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
24 Mar 0028	WARNING: Geomagnetic Sudden Impulse expected	24/0030 - 0130
24 Mar 0057	SUMMARY: Geomagnetic Sudden Impulse	24/0038
24 Mar 0129	WARNING: Geomagnetic K = 4	24/0129 - 2359
24 Mar 0235	ALERT: Geomagnetic K = 4	
24 Mar 0411	WARNING: Geomagnetic K = 5	24/0410 - 1500
24 Mar 1107	WATCH: Geomagnetic Storm Category G2 predicted	
25 Mar 0320	WARNING: Geomagnetic K = 4	25/0330 - 1530
25 Mar 1250	ALERT: Type II Radio Emission	25/1236
25 Mar 2018	WARNING: Geomagnetic K = 4	25/2017 - 26/1200
25 Mar 2032	ALERT: Geomagnetic K = 4	
25 Mar 2112	WATCH: Geomagnetic Storm Category G2 predicted	
26 Mar 0132	WARNING: Geomagnetic K = 5	26/0131 - 1200
26 Mar 0301	ALERT: Geomagnetic K = 5	
26 Mar 1112	ALERT: Type II Radio Emission	26/0920
26 Mar 1117	EXTENDED WARNING: Geomagnetic K = 5	26/0131 - 2100
26 Mar 1117	EXTENDED WARNING: Geomagnetic K = 4	25/2017 - 26/2359
26 Mar 1338	WARNING: Geomagnetic K = 6	26/1338 - 2100
26 Mar 1404	ALERT: Geomagnetic K = 6	
26 Mar 1658	ALERT: Geomagnetic K = 5	
26 Mar 1659	EXTENDED WARNING: Geomagnetic K = 4	25/2017 - 27/1200
26 Mar 1701	EXTENDED WARNING: Geomagnetic K = 5	26/0131 - 27/0600
26 Mar 1748	ALERT: Geomagnetic K = 6	
26 Mar 2004	ALERT: Geomagnetic K = 5	
26 Mar 2016	ALERT: Geomagnetic K = 6	
26 Mar 2018	EXTENDED WARNING: Geomagnetic K = 6	26/1338 - 27/0300
26 Mar 2246	ALERT: Geomagnetic K = 5	
27 Mar 0350	EXTENDED WARNING: Geomagnetic K = 4	25/2017 - 27/2359
27 Mar 0452	EXTENDED WARNING: Geomagnetic K = 5	26/0131 - 27/1800
27 Mar 0557	ALERT: Geomagnetic K = 5	

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
27 Mar 0902	ALERT: Geomagnetic K = 5	
27 Mar 1503	ALERT: Geomagnetic K = 5	
27 Mar 1608	ALERT: Geomagnetic K = 5	
27 Mar 1647	EXTENDED WARNING: Geomagnetic K = 5	26/0131 - 28/0600
27 Mar 1653	EXTENDED WARNING: Geomagnetic K = 4	25/2017 - 28/1200
28 Mar 0823	EXTENDED WARNING: Geomagnetic K = 4	25/2017 - 28/2359
28 Mar 1428	ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/1410
28 Mar 1518	ALERT: X-ray Flux exceeded M5	28/1507
28 Mar 1537	ALERT: Type IV Radio Emission	28/1514
28 Mar 1542	SUMMARY: 10cm Radio Burst	28/1506 - 1530
28 Mar 1550	SUMMARY: X-ray Event exceeded X1	28/1503 - 1542
28 Mar 1609	SUMMARY: X-ray Event exceeded X1	28/1503 - 1542
28 Mar 2357	EXTENDED WARNING: Geomagnetic K = 4	25/2017 - 29/1200
29 Mar 0507	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/1410
30 Mar 0501	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/1410

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
31 Mar	170	5	2	14 Apr	170	12	3
01 Apr	175	5	2	15	170	8	3
02	175	5	2	16	175	5	2
03	175	10	3	17	175	10	3
04	180	20	5	18	175	12	3
05	180	35	6	19	170	8	3
06	180	10	3	20	170	10	3
07	185	12	3	21	165	15	4
08	185	30	5	22	165	15	4
09	180	35	6	23	170	15	4
10	175	25	5	24	170	15	4
11	175	18	4	25	165	10	3
12	175	10	3	26	165	8	3
13	175	15	4				

Energetic Events

	Time			X-ray		Optical Information			Peak Radio Flux		Sweep Freq Intensity	
Date	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	245	2695	II	IV
26 Mar	0744	0809	0821	M1.0	0.013			4043				
27 Mar	0018	0037	0051	M2.0	0.001			4043				
28 Mar	1503	1521	1542	X1.1	0.170			4046	240	380		2
28 Mar	1754	1801	1805	M1.0	0.006	SF	N02E76	4046				
28 Mar	1914	1926	1938	M1.1	0.013							
28 Mar	2320	2339	2353	M1.7	0.022			4048				
29 Mar	2119	2138	2209	M1.4	0.031			4043				
29 Mar	2238	2300	2321	M1.9	0.037			4048				
30 Mar	0119	0148	0201	M1.5	0.024			4048				
30 Mar	1627	1642	1700	M1.6	0.021			4048				
30 Mar	1700	1707	1714	M1.4	0.011			4048				
30 Mar	2243	2250	2256	M1.4	0.009			4048				
30 Mar	2310	2319	2331	M1.5	0.014			4048	100			
30 Mar	2341	2348	2352	M1.0	0.007			4048				

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
24 Mar	0027	0034	0046	C2.0			
24 Mar	0725	0737	0746	C5.2			4035
24 Mar	1326	1336	1346	C2.3	SF	N08W61	4036
24 Mar	1741	1752	1817		SF	N08W64	4036
24 Mar	1830	1836	1844	C1.4	SF	N08W64	4036
24 Mar	1845	1848	1851		SF	N08W64	4036
24 Mar	2042	2049	2054	C1.8			
24 Mar	2309	2318	2333	C2.5	SF	N08W66	4036
25 Mar	0036	0040	0046	C3.4	SF	N08W66	4036
25 Mar	0148	0154	0201	C1.7			4036
25 Mar	0350	0355	0406	C1.6			
25 Mar	0811	0819	0829	C2.6			4030
25 Mar	0842	0858	0928	C3.1			4036
25 Mar	0942	0949	1001	C4.4			4030
25 Mar	1216	1229	1244	C9.5			4030
25 Mar	1757	1804	1810	C2.5	SF	S10W59	4034
25 Mar	1930	1936	1947		SF	N14E60	4043

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
25 Mar	2039	2047	2053	C2.5	SF	N13E59	4043
26 Mar	0439	0444	0449	C1.9			4043
26 Mar	0712	0724	0730	C2.3			4043
26 Mar	0744	0809	0821	M1.0			4043
26 Mar	0907	0912	0920	C6.5			4043
26 Mar	1149	1154	1202	C2.8			4043
26 Mar	1324	1337	1350	C2.7			
26 Mar	1910	1923	1931	C7.0			4043
26 Mar	2035	2042	2046	C1.9			
26 Mar	2315	2324	2335	C2.4			4043
27 Mar	0018	0037	0051	M2.0			4043
27 Mar	0249	0301	0312	C3.9			4043
27 Mar	0446	0454	0501	C2.4			
27 Mar	0657	0703	0713	C2.0	SF	N14E41	4043
27 Mar	0913	0922	0939	C2.1			
27 Mar	0946	1002	1024	C3.2			
27 Mar	1108	1108	1115		SF	N18E09	4041
27 Mar	1413	1420	1429	C1.6			
27 Mar	1534	1553	1610	C3.9			
27 Mar	2216	2224	2241	C8.8			4043
27 Mar	2241	2252	2301	C7.5			4043
28 Mar	0352	0405	0421	C2.1			4043
28 Mar	0743	0753	0757	C1.8			4043
28 Mar	0757	0804	0809	C1.9			4043
28 Mar	1351	1401	1407	C3.5			
28 Mar	1503	1521	1542	X1.1			4046
28 Mar	1753	1803	1815	M1.0	SF	N02E76	4046
28 Mar	1914	1926	1938	M1.1			
28 Mar	2320	2339	2353	M1.7			4048
29 Mar	0355	0404	0409	C4.0			4048
29 Mar	0409	0413	0419	C3.8			4048
29 Mar	0450	0459	0506	C3.9			4048
29 Mar	0625	0631	0640	C2.2			4048
29 Mar	1012	1019	1025	C2.4			4048
29 Mar	B1031	U1034	A1040		SF	N08W26	4039
29 Mar	1105	1112	1117	C4.5			4048
29 Mar	1125	1132	1137	C2.9			4046
29 Mar	1149	1201	1207	C7.5			4048

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
29 Mar	1703	1708	1713	C2.2			4048
29 Mar	1726	1731	1736	C2.6			4048
29 Mar	1753	1807	1817	C6.5			4048
29 Mar	1839	1851	1859	C6.6			4048
29 Mar	1906	1913	1918	C3.5			4048
29 Mar	1957	2007	2013	C3.3			4048
29 Mar	2028	2036	2043	C3.5			4048
29 Mar	2119	2138	2209	M1.4			4043
29 Mar	2238	2300	2321	M1.9			4048
30 Mar	0119	0148	0201	M1.5			4048
30 Mar	0430	0437	0444	C4.9			4048
30 Mar	B0811	U0811	A0821		SF	S15W28	4047
30 Mar	0958	1012	1024	C8.2	SF	S15E75	4048
30 Mar	1120	1128	1132	C3.1	SF	S15E75	4048
30 Mar	1145	1154	1208	C3.9			
30 Mar	1214	U1214	1222	C3.9	SF	N07E55	4046
30 Mar	1229	1237	1242	C4.3			4046
30 Mar	1509	1518	1522		SF	S16E76	4048
30 Mar	1526	1528	1530		SF	S21E72	4048
30 Mar	1535	1550	1604	C3.7	1F	S16E73	4048
30 Mar	1611	1612	1622		SF	N01E50	4046
30 Mar	1616	1643	1735		1N	S16E72	4048
30 Mar	1627	1642	1700	M1.6			4048
30 Mar	1700	1707	1714	M1.4			4048
30 Mar	1741	1745	1750		SF	S14E74	4048
30 Mar	1801	1801	1804		SF	S15E72	4048
30 Mar	1806	1807	1809		SF	S16E74	4048
30 Mar	1840	1854	1907	C3.5	SF	N17W35	4041
30 Mar	1935	1944	1955	C4.9			4048
30 Mar	1955	2001	2005	C4.3			
30 Mar	2103	2114	2122	C3.6			
30 Mar	2226	2235	2243	C8.5			4039
30 Mar	2243	2250	2256	M1.4			4048
30 Mar	2244	2245	2321		SF	N12W51	4039
30 Mar	2310	2319	2331	M1.5			4048
30 Mar	2341	2348	2352	M1.0			4048

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
			Region 4028												
13 Mar	S17E65	143	120	3	Dai	4	B	1							
14 Mar	S18E57	138	110	9	Dao	6	BG	3							
15 Mar	S17E41	141	240	6	Dai	3	BG	4			1				
16 Mar	S18E27	142	110	7	Dsi	12	BG	2			2				
17 Mar	S18E16	140	100	7	Dai	17	BG	2			1	1			
18 Mar	S17E03	140	60	6	Dai	11	BG	2							
19 Mar	S17W10	139	70	6	Dai	13	B	1			1				
20 Mar	S17W24	140	60	6	Cai	10	B								
21 Mar	S16W38	141	80	7	Cai	10	B		1			1			
22 Mar	S16W52	142	40	3	Cri	6	B								
23 Mar	S16W66	143	30	2	Bxo	4	B	3			1				
24 Mar	S16W80	144	10	2	Axx	4	A								
								35	1	0	6	2	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 140

			Region 4029												
15 Mar	S14E34	148	10	1	Axx	1	A								
16 Mar	S15E20	149	plage					1			1				
17 Mar	S15E06	150	plage												
18 Mar	S15W08	151	plage												
19 Mar	S15W22	151	plage												
20 Mar	S15W36	152	plage												
21 Mar	S15W50	153	plage												
22 Mar	S15W64	154	plage												
23 Mar	S15W78	155	plage												
								1	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 150

Region Summary - continued

	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
		Region 4030													
14 Mar	S16E65	130	plage						1						
15 Mar	S16E59	123	90	12	Eso	5	BG	2							
16 Mar	S17E38	131	80	2	Hsx	1	A	1							
17 Mar	S17E26	130	70	2	Hsx	1	A								
18 Mar	S17E13	130	90	2	Hsx	1	A								
19 Mar	S17E01	128	60	2	Hsx	1	A	1			1				
20 Mar	S17W13	129	60	2	Hsx	1	A								
21 Mar	S18W25	128	110	2	Hsx	1	A								
22 Mar	S18W39	129	100	2	Hsx	1	A								
23 Mar	S18W52	129	80	2	Hsx	1	A								
24 Mar	S18W65	129	100	2	Hsx	1	A								
25 Mar	S15W77	126	80	2	Hsx	1	A	3							
26 Mar	S15W88	124	10	1	Hsx	1	A								
								7	1	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 128

		Region 4031													
15 Mar	N17E18	164	10	3	Bxo	2	B								
16 Mar	N17E04	165	60	5	Dai	6	B								
17 Mar	N15W10	166	60	9	Dai	12	BG	1			1				
18 Mar	N16W24	167	100	12	Eai	11	BG								
19 Mar	N16W36	165	120	11	Eai	11	BG	1	1			1			
20 Mar	N17W48	164	100	10	Cai	12	B	1			1				
21 Mar	N16W66	169	120	7	Cao	5	B								
22 Mar	N17W79	169	80	4	Cao	4	B								
23 Mar	N17W93	170	plage					1							
								4	1	0	2	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 165

Region Summary - continued

	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
			Region 4032												
15 Mar	N27E36	146	10	1	Axx	1	A								
16 Mar	N28E22	147	10	1	Axx	1	A								
17 Mar	N28E08	148	plage												
18 Mar	N28W06	149	plage												
19 Mar	N28W20	149	plage												
20 Mar	N28W34	150	plage												
21 Mar	N28W48	151	plage												
22 Mar	N28W62	152	plage												
23 Mar	N28W76	153	plage												
24 Mar	N28W90	154	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 149

			Region 4033												
15 Mar	N24E60	122	10	3	Bxo	3	B								
16 Mar	N25E47	122	10	1	Axx	2	A								
17 Mar	N24E37	119	10	2	Axx	2	A	1	1			1			
18 Mar	N29E24	119	10	1	Axx	1	A								
19 Mar	N29E10	119	plage												
20 Mar	N29W04	120	plage												
21 Mar	N19W19	122	10	2	Axx	2	A								
22 Mar	N19W33	123	plage												
23 Mar	N19W47	124	plage												
24 Mar	N19W61	125	plage												
25 Mar	N19W75	125	plage												
26 Mar	N19W89	126	plage												
								1	1	0	0	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 120

Region Summary - continued

	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
			Region 4034												
16 Mar	S16E51	118	10	5	Bxo	3	B								
17 Mar	S14E46	110	20	4	Cro	3	B	2							
18 Mar	S13E30	113	10	6	Bxo	5	B								
19 Mar	S13E16	113	10	6	Bxi	11	B								
20 Mar	S12E04	112	20	5	Cso	8	B								
21 Mar	S12W09	112	20	6	Cro	4	B	1			1				
22 Mar	S11W21	111	10	1	Axx	1	A								
23 Mar	S11W35	112	plage												
24 Mar	S11W49	113	plage												
25 Mar	S11W63	113	plage					1			1				
26 Mar	S11W77	114	plage												
								4	0	0	2	0	0	0	0

Died on Disk.
Absolute heliographic longitude: 112

			Region 4035												
18 Mar	N15E53	90	20	3	Dro	5	B								
19 Mar	N15E46	83	50	7	Dao	4	B								
20 Mar	N15E32	84	80	8	Dso	4	B								
21 Mar	N15E18	85	80	8	Dao	6	B								
22 Mar	N15E05	85	80	8	Dro	7	B	1			1				
23 Mar	N15W09	86	40	9	Cro	6	B	2			1				
24 Mar	N15W22	84	10	9	Bxo	6	B	1							
25 Mar	N16W36	85	30	8	Cro	4	B								
26 Mar	N16W50	87	15	9	Cao	3	B								
27 Mar	N16W63	87	20	5	Cso	3	B								
28 Mar	N16W77	88	plage												
								4	0	0	2	0	0	0	0

Died on Disk.
Absolute heliographic longitude: 85

Region Summary - continued

	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
			Region 4036												
21 Mar	N06W24	127	20	3	Dro	4	B	1							
22 Mar	N07W39	129	220	8	Dac	15	BG				3				
23 Mar	N07W52	129	230	9	Dai	12	BG				1				
24 Mar	N07W65	129	260	9	Dhi	9	BG	3			5				
25 Mar	N08W78	127	300	11	Eki	8	BG	3			1				
26 Mar	N08W89	125	300	11	Eki	8	BG								
								7	0	0	10	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 127

			Region 4037												
21 Mar	N19W19	122	10	3	Cro	2	B								
22 Mar	N19W34	124	10	5	Bxo	4	B								
23 Mar	N17W48	125	plage												
24 Mar	N19W62	126	plage												
25 Mar	N19W76	126	plage												
26 Mar	N19W90	127	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 122

			Region 4038												
21 Mar	S15E60	43	10	1	Axx	2	A								
22 Mar	S15E47	43	10	7	Bxo	2	B								
23 Mar	S14E34	43	plage												
24 Mar	S14E20	44	plage												
25 Mar	S14E06	44	plage												
26 Mar	S14W08	45	plage												
27 Mar	S15W22	46	plage												
28 Mar	S15W36	47	plage												
29 Mar	S15W50	48	plage												
30 Mar	S15W64	48	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 44

Region Summary - continued

	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
			Region 4039												
21 Mar	N09E70	33	30	3	Cro	4	B								
22 Mar	N09E53	37	10	3	Bxo	3	B								
23 Mar	N09E37	40	10	2	Bxo	3	B								
24 Mar	N09E23	41	10	3	Bxo	3	B								
25 Mar	N09E09	41	plage												
26 Mar	N09W05	42	plage												
27 Mar	N09W19	43	plage												
28 Mar	N09W33	44	plage												
29 Mar	N09W47	45	plage								1				
30 Mar	N09W62	46	plage					1			1				
								1	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 42

			Region 4040												
22 Mar	S08E61	29	30	1	Hax	1	A								
23 Mar	S08E46	31	20	1	Axx	2	A								
24 Mar	S08E32	32	10	1	Axx	2	A								
25 Mar	S08E18	32	plage												
26 Mar	S08E04	33	plage												
27 Mar	S08W10	34	plage												
28 Mar	S08W24	35	plage												
29 Mar	S08W38	36	plage												
30 Mar	S08W52	36	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 33

Region Summary - continued

	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
			Region 4041												
22 Mar	N16E63	27	10	1	Axx	1	A								
23 Mar	N17E49	28	10	1	Axx	1	A								
24 Mar	N18E35	29	plage												
25 Mar	N18E21	29	plage												
26 Mar	N18E07	30	plage												
27 Mar	N17E01	23	10	3	Bxo	2	B				1				
28 Mar	N18W13	24	10	1	Axx	1	A								
29 Mar	N18W26	24	10	1	Axx	1	A								
30 Mar	N18W40	24	plage					1			1				
								1	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 23

			Region 4042												
22 Mar	S12E69	21	10	1	Axx	1	A								
23 Mar	S12E54	23	10	1	Axx	1	A								
24 Mar	S12E40	24	plage												
25 Mar	S12E26	24	plage												
26 Mar	S12E12	25	plage												
27 Mar	S12W02	26	plage												
28 Mar	S12W16	27	plage												
29 Mar	S12W30	28	plage												
30 Mar	S12W44	28	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 26

			Region 4043												
25 Mar	N13E55	354	30	5	Dro	5	B	1			2				
26 Mar	N11E52	354	90	8	Dai	11	B	6	1						
27 Mar	N14E28	356	110	7	Dai	14	B	4	1		1				
28 Mar	N15E14	357	100	9	Dai	9	BG	3							
29 Mar	N14E01	357	100	10	Dai	17	BG		1						
30 Mar	N14W12	356	100	12	Eai	15	BG								
								14	3	0	3	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 357

Region Summary - continued

	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
			Region 4044												
27 Mar	N21E48	336	10	4	Bxo	2	B								
28 Mar	N22E34	337	20	5	Cro	3	B								
29 Mar	N21E21	337	30	7	Cro	6	B								
30 Mar	N21E08	336	50	5	Dao	8	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 336

			Region 4045												
27 Mar	S16E77	307	30	2	Hsx	1	A								
28 Mar	S15E63	308	30	2	Hsx	1	A								
29 Mar	S16E50	308	20	2	Hax	2	A								
30 Mar	S15E37	307	20	2	Hrx	2	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 307

			Region 4046												
28 Mar	N05E69	302	270	5	Cho	3	B		1	1	1				
29 Mar	N05E56	302	270	4	Cho	3	B	1							
30 Mar	N05E43	301	270	5	Dho	6	BG	2			2				
								3	1	1	3	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 301

			Region 4047												
28 Mar	S16W10	21	10	3	Cro	3	B								
29 Mar	S16W24	22	20	3	Cro	3	B								
30 Mar	S16W37	21	70	5	Dai	10	B				1				
								0	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 21

Region Summary - continued

	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
		Region 4048													
28 Mar	S15E91	281	plage						1						
29 Mar	S15E77	281	110	4	Dao	5	B	14	1						
30 Mar	S15E63	281	300	12	Eki	10	BG	5	6		7	2			
								19	8	0	7	2	0	0	0

Still on Disk.
Absolute heliographic longitude: 281

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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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