Space Weather Highlights
27 February - 05 March 2023

SWPC PRF 2479
06 March 2023

Solar activity reached very high levels this week. In total, one R3 (Strong) event, three R2 (Moderate) events, and eight R1 (Minor) events were observed. The largest event of the period was an X2/1b flare at 03/1752 UTC from Region 3234 (N25, L=346, class/area=Fkc/860 on 28 Feb). Region 3234 was the most active sunspot region throughout the week, and in addition to the X-flare, 3234 also produced an M8 flare at 28/1750 UTC, an M5 flare at 04/1557 UTC, an M3 flare at 02/2116 UTC, and an M3/1f flare at 03/1032 UTC. Region 3243 (N18, L=306, class/area=Dao/110 on 05 Mar) produced an M5 flare at 05/2136 UTC and an M1/Sn flare at 04/0710 UTC. No Earth-directed CMEs resulted from this periods flare activity.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was normal to moderate on 27 Feb, and high on 28 Feb-05 Mar.

Geomagnetic field activity reached G3 (Strong) storm levels on 27 Feb, and G2 (Moderate) levels on 28 Feb, due to a combination of CME effects (25 Feb CME) and negative polarity CH HSS influences. Negative polarity CH HSS influences persisted over 01-05 Mar, with quiet to unsettled levels observed on 01 Mar and active conditions registered on 02-05 Mar.

Space Weather Outlook
06 March - 01 April 2023

Solar activity is expected to reach moderate to high levels throughout the outlook period. Multiple recurrent active regions with significant flare histories are expected to transit the solar disk this period.

No proton events are expected at geosynchronous orbit, barring significant flare activity.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to reach high levels on 06-13 Mar and 27 Mar-01 Apr. Normal to moderate levels are expected over 14-26 Mar.

Geomagnetic field activity is likely to reach G1 (Minor) storm levels on 06, 26, and 30 Mar and active levels on 07, 15, 20, 25, 27, 31 Mar, and 01 Apr, in response to multiple recurrent CH HSS features. Quiet and quiet to unsettled levels are expected to persist 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
27 February	161	192	1030	C1.0	1	0	0	2	0	0	0	0
28 February	161	100	1110	C1.1	6	1	0	4	0	0	0	0
01 March	162	105	1110	C1.2	10	1	0	12	2	0	0	0
02 March	169	103	1310	C1.6	7	1	0	17	1	0	0	0
03 March	175	133	1430	C1.9	6	1	1	17	3	0	0	0
04 March	182	122	620	C2.0	12	3	0	14	2	2	0	0
05 March	180	137	770	C1.7	6	4	0	13	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
27 February	7.1e+07	2.3e+05	2.4e+06
28 February	7.4e+06	3.7e+04	3.8e+07
01 March	2.1e+06	2.3e+04	1.8e+08
02 March	1.7e+06	2.2e+04	1.2e+08
03 March	1.8e+05	2.2e+04	4.4e+07
04 March	3.1e+05	2.2e+04	9.0e+07
05 March	5.5e+05	2.2e+04	2.1e+08

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
27 February	60	4-4-5-7-6-6-5-4	88	4-5-7-7-6-7-6-5	94	5-6-7-7-7-7-6-6
28 February	19	5-4-3-3-2-2-3-3	29	4-5-4-5-3-3-4-4	28	6-5-3-3-2-2-4-4
01 March	6	2-1-1-2-1-2-2-2	5	3-2-0-2-1-0-1-1	8	3-2-1-3-1-1-2-2
02 March	8	1-1-3-2-2-2-2-3	14	1-1-4-5-2-1-3-2	9	1-2-2-2-1-2-3-4
03 March	16	3-3-2-3-4-2-4-3	37	3-4-6-6-5-3-3-3	22	4-4-3-4-4-2-4-4
04 March	10	3-2-2-3-2-2-2-3	20	3-3-4-5-3-3-3-2	15	4-3-3-3-2-3-3-4
05 March	17	3-3-4-3-3-3-3-3	41	3-3-6-5-6-5-4-3	22	4-3-4-3-4-3-4-4

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
27 Feb 0253	ALERT: Geomagnetic K = 5	27/0248
27 Feb 0408	ALERT: Geomagnetic K = 5	27/0400
27 Feb 0525	ALERT: Geomagnetic K = 6	27/0522
27 Feb 0650	SUMMARY: Proton Event 10MeV Integral Flux >= 10pfu	25/2110 - 26/2320
27 Feb 0658	ALERT: Geomagnetic K = 6	27/0657
27 Feb 0802	ALERT: Geomagnetic K = 7	27/0800
27 Feb 0819	WARNING: Geomagnetic K>= 7	27/0750 - 1200
27 Feb 0855	EXTENDED WARNING: Geomagnetic K = 6	26/2232 - 28/0600
27 Feb 0942	ALERT: Geomagnetic K = 5	27/0938
27 Feb 1033	EXTENDED WARNING: Geomagnetic K = 5	26/1935 - 28/0600
27 Feb 1033	EXTENDED WARNING: Geomagnetic K = 4	25/2225 - 28/1500
27 Feb 1053	ALERT: Geomagnetic K = 6	27/1049
27 Feb 1117	ALERT: Geomagnetic K = 7	27/1115
27 Feb 1233	ALERT: Geomagnetic K = 5	27/1230
27 Feb 1301	ALERT: Geomagnetic K = 6	27/1258
27 Feb 1354	WARNING: Geomagnetic K>= 7	27/1353 - 1800
27 Feb 1436	ALERT: Geomagnetic K = 7	27/1435
27 Feb 1548	ALERT: Geomagnetic K = 5	27/1546
27 Feb 1604	ALERT: Geomagnetic K = 6	27/1602
27 Feb 1723	ALERT: Geomagnetic K = 7	27/1721
27 Feb 1850	ALERT: Geomagnetic K = 5	27/1848
27 Feb 1907	ALERT: Geomagnetic K = 6	27/1902
27 Feb 1922	WARNING: Geomagnetic K>= 7	27/1922 - 2359
27 Feb 2124	ALERT: Geomagnetic K = 5	27/2120
27 Feb 2147	ALERT: Geomagnetic K = 6	27/2146
28 Feb 0126	ALERT: Geomagnetic K = 5	28/0119
28 Feb 0255	ALERT: Geomagnetic K = 6	28/0255
28 Feb 0527	EXTENDED WARNING: Geomagnetic K = 5	26/1935 - 28/1500
28 Feb 0527	EXTENDED WARNING: Geomagnetic K = 4	25/2225 - 28/2100

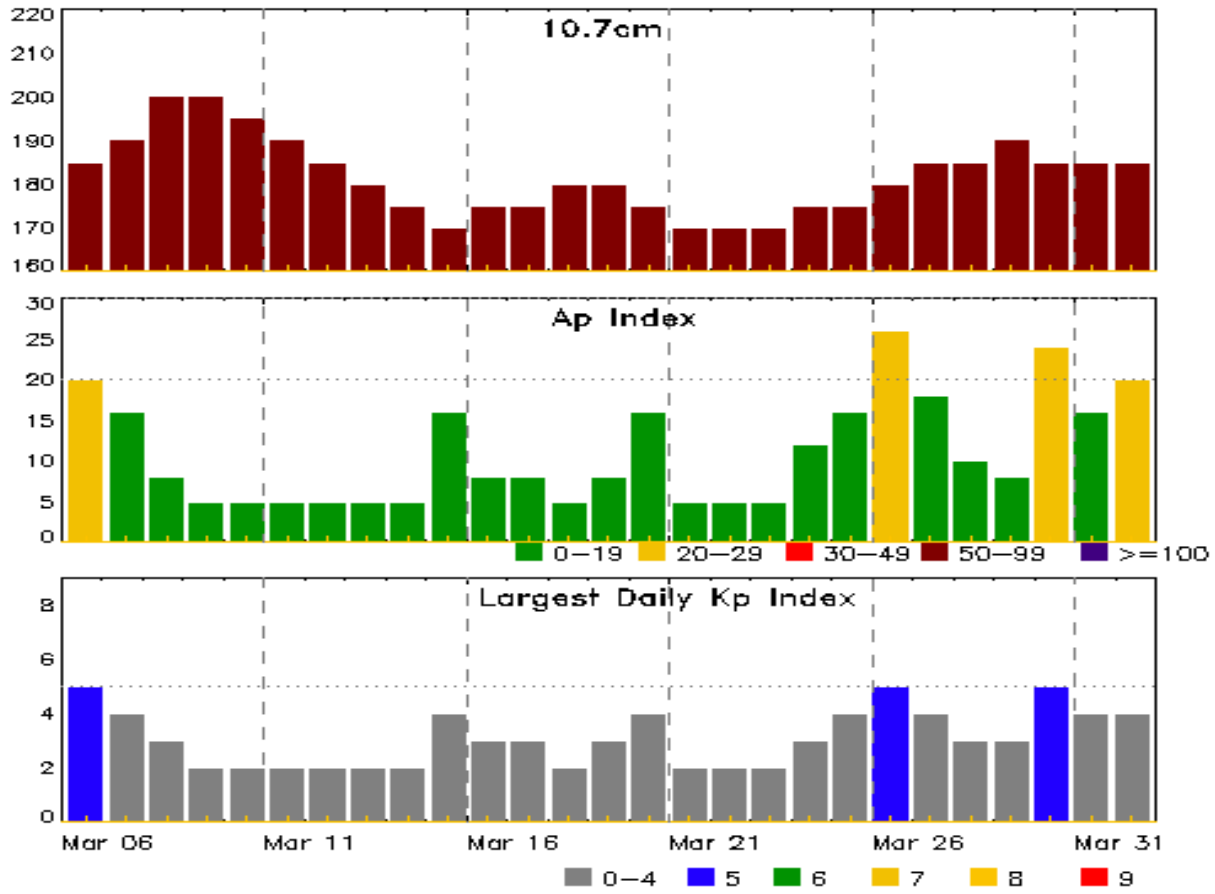
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
28 Feb 0541	ALERT: Geomagnetic K = 5	28/0515
28 Feb 1746	ALERT: X-ray Flux exceeded M5	28/1744
28 Feb 1810	SUMMARY: X-ray Event exceeded M5	28/1735 - 1756
28 Feb 1924	WARNING: Geomagnetic K = 5	28/1925 - 2359
28 Feb 1930	EXTENDED WARNING: Geomagnetic K = 5	28/1925 - 01/0300
28 Feb 1935	EXTENDED WARNING: Geomagnetic K = 4	25/2225 - 01/0600
28 Feb 2212	ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/2155
01 Mar 0459	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/2155
02 Mar 0556	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/2155
02 Mar 1809	WATCH: Geomagnetic Storm Category G1 predicted	
02 Mar 2320	WARNING: Geomagnetic K = 4	02/2320 - 03/0600
02 Mar 2349	ALERT: Geomagnetic K = 4	02/2345
03 Mar 0504	EXTENDED WARNING: Geomagnetic K = 4	02/2320 - 03/1500
03 Mar 1327	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/2155
03 Mar 1455	EXTENDED WARNING: Geomagnetic K = 4	02/2320 - 04/0600
03 Mar 1702	WATCH: Geomagnetic Storm Category G1 predicted	
03 Mar 1810	ALERT: X-ray Flux exceeded M5	03/1749
03 Mar 1831	SUMMARY: 10cm Radio Burst	03/1749 - 1803
03 Mar 1832	ALERT: Type II Radio Emission	03/1753
03 Mar 1833	ALERT: Type IV Radio Emission	03/1753
03 Mar 1847	WARNING: Proton 10MeV Integral Flux > 10pfu	03/1850 - 2050
03 Mar 2008	SUMMARY: X-ray Event exceeded X1	03/1742 - 1759
04 Mar 0537	EXTENDED WARNING: Geomagnetic K = 4	02/2320 - 04/1500
04 Mar 1007	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/2155
04 Mar 1546	ALERT: Type II Radio Emission	04/1531
04 Mar 1552	ALERT: X-ray Flux exceeded M5	04/1551
04 Mar 1553	ALERT: Type IV Radio Emission	04/1530

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
04 Mar 1634	SUMMARY: X-ray Event exceeded M5	04/1519 - 1626
04 Mar 2225	WARNING: Geomagnetic K = 4	04/2225 - 05/1200
04 Mar 2230	ALERT: Geomagnetic K = 4	04/2230
05 Mar 0501	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	28/2155
05 Mar 1052	EXTENDED WARNING: Geomagnetic K = 4	04/2225 - 05/2359
05 Mar 2136	ALERT: X-ray Flux exceeded M5	05/2135
05 Mar 2159	SUMMARY: X-ray Event exceeded M5	05/2129 - 2141
05 Mar 2357	EXTENDED WARNING: Geomagnetic K = 4	04/2225 - 06/1200

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
06 Mar	185	20	5	20 Mar	175	16	4
07	190	16	4	21	170	5	2
08	200	8	3	22	170	5	2
09	200	5	2	23	170	5	2
10	195	5	2	24	175	12	3
11	190	5	2	25	175	16	4
12	185	5	2	26	180	26	5
13	180	5	2	27	185	18	4
14	175	5	2	28	185	10	3
15	170	16	4	29	190	8	3
16	175	8	3	30	185	24	5
17	175	8	3	31	185	16	4
18	180	5	2	01 Apr	185	20	4
19	180	8	3				

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
28 Feb	1735	1750	1756	M8.6	0.057			3234		140		
01 Mar	0056	0107	0118	M1.0	0.008	SF	S15E69	3240				
02 Mar	2105	2116	2125	M3.8	0.030			3234				
03 Mar	1010	1032	1048	M3.3	0.047	1F	N22W66	3234				
03 Mar	1742	1752	1759	X2.1	0.091	1B	N22W80	3234	360	710	1	1
04 Mar	0706	0710	0714	M1.0	0.003	SN	N17W39	3243	370			
04 Mar	1334	1342	1347	M1.2	0.007	1F	N08E43	3242				
04 Mar	1519	1557	1626	M5.2	0.140			3234				2
05 Mar	0240	0252	0303	M1.3	0.010	SF	N09W01	3238				
05 Mar	1624	1641	1653	M1.0	0.009	SF	N10W12	3238				
05 Mar	1653	1701	1711	M1.0	0.011			3242				
05 Mar	2129	2136	2141	M5.0	0.021			3243		91		

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
27 Feb	1012	1022	1033	C4.5			3234
27 Feb	1454	1455	1457		SF	N24W13	3234
27 Feb	1622	1628	1651		SF	N25W18	3234
28 Feb	0408	0412	0418	C2.4			
28 Feb	0450	0500	0526	C2.4			
28 Feb	0620	0628	0636	C2.5			3234
28 Feb	0648	0659	0710	C3.3			
28 Feb	0712	0715	0720		SF	N24W20	3234
28 Feb	1441	1441	1445		SF	N22W51	3235
28 Feb	1605	1622	1642	C5.8	SF	N26W31	3234
28 Feb	1735	1750	1756	M8.6			3234
28 Feb	2201	2205	2209		SF	S15E71	
28 Feb	2221	2234	2250	C4.3			3234
01 Mar	0056	0107	0118	M1.0	SF	S15E69	3240
01 Mar	0103	0106	0203		1N	N24W33	3234
01 Mar	0128	0144	0155	C9.3	1F	S15E69	3240
01 Mar	0252	0320	0336	C5.1			3234
01 Mar	0259	0311	0342		SF	N24W33	3234
01 Mar	0300	0308	0319		SF	S15E69	3234

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
01 Mar	0358	0400	0408	C3.1	SF	N24W33	3234
01 Mar	0412	0419	0424	C6.3	SF	S15E69	3240
01 Mar	0517	0518	0523		SF	N24W33	3234
01 Mar	0525	0526	0529		SF	N24W33	3234
01 Mar	0530	0533	0543		SF	S15E69	3234
01 Mar	0534	0536	0547		SF	N24W33	3234
01 Mar	0608	0616	0626	C2.4			3234
01 Mar	0613	0616	0721		SF	N24W33	3234
01 Mar	0626	0630	0633	C3.0			
01 Mar	0735	0736	0737		SF	N24W33	3234
01 Mar	B0844	U0848	A0937	C3.0	SF	N22W39	3234
01 Mar	1310	1358	1434	C4.2			3236
01 Mar	1928	1936	1944	C2.0			3236
01 Mar	2318	2322	2328	C2.7			3234
02 Mar	0346	0354	0358	C4.1	SF	N08E79	
02 Mar	0423	0435	0439	C2.2	SF	S25W60	3236
02 Mar	0642	0644	0648		SF	N09E84	
02 Mar	0654	0705	0713		SF	N09E84	
02 Mar	0756	0802	0806	C2.8	SF	N20W55	3234
02 Mar	B0830	U0830	A0833		SF	N20W55	3234
02 Mar	B0936	U0936	A0947		SF	S27W62	3236
02 Mar	B1003	U1003	A1012		SF	N26W51	3234
02 Mar	1026	1029	1033	C3.1	SF	N20W57	3234
02 Mar	1036	1041	1046	C3.2			
02 Mar	1135	1146	1157	C3.7	SF	N09E84	
02 Mar	1204	1210	1215	C6.5			
02 Mar	B1228	U1228	A1240		SF	N09E84	
02 Mar	B1245	U1245	A1249		SF	N09E84	3234
02 Mar	B1245	U1247	A1252		SF	N20W57	3234
02 Mar	1335	1335	1339		SF	N09E78	
02 Mar	1441	1443	1501		SF	N09E78	3234
02 Mar	1451	1452	1503		SF	N20W57	3234
02 Mar	B1543	U1547	A1606		SF	N21W59	3234
02 Mar	2105	2116	2125	M3.8			3234
02 Mar	2109	2117	2218		1N	N20W65	3234
03 Mar	0158	0223	0246	C7.2	SF	N06E65	3242
03 Mar	0526	0527	0529		SF	N22W70	3234
03 Mar	B0624	U0630	A0718	C3.0	SF	S26W72	3239

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
03 Mar	0700	0703	0704		SF	N22W72	3234
03 Mar	0826	0846	0908	C5.0	SF	N22W73	3234
03 Mar	1010	1032	1048	M3.3	1F	N22W66	3234
03 Mar	B1406	1407	1410		SF	S24W78	3236
03 Mar	1426	1431	1435	C3.9			
03 Mar	1429	1432	1436		SF	N09E54	3242
03 Mar	1442	1442	1445		SF	N12E65	3242
03 Mar	1448	1512	1546	C9.1	SF	S24W84	3236
03 Mar	1451	1554	1553		1F	N11E64	3242
03 Mar	1510	1516	1519		SF	N22W80	3234
03 Mar	1554	1556	1559		SF	N12E65	3242
03 Mar	1742	1752	1759	X2.1	1B	N22W80	3234
03 Mar	1750	1755	1759		SF	N09E54	3242
03 Mar	1847	1848	1852		SF	N11E53	3242
03 Mar	2129	2136	2144		SF	N10E51	3242
03 Mar	2224	2226	2231		SF	N10E51	3242
03 Mar	2313	2319	2323	C3.1			3242
03 Mar	2317	2327	2337		SB	N10E49	3242
03 Mar	2318	2327	2335		SF	N10E49	3242
04 Mar	0001	0011	0022	C4.2			3234
04 Mar	0217	0226	0233	C5.3	2N	N10E49	3242
04 Mar	0447	0450	0458	C3.9	SF	N10E49	3242
04 Mar	0622	0637	0641		SF	N10E49	3242
04 Mar	B0647	U0648	0705		SF	N20W77	3234
04 Mar	0706	0710	0714	M1.0	SN	N17W39	3243
04 Mar	0721	0726	0730	C5.6	2N	N09E44	3242
04 Mar	B0801	U0801	0806		SF	N20W77	3234
04 Mar	0813	0824	0831	C6.7			3234
04 Mar	0908	0908	0914		SF	N20W77	3234
04 Mar	0911	U0915	0948	C4.9	SF	S23E66	3245
04 Mar	1154	1200	1204	C4.1			3242
04 Mar	1334	1342	1347	M1.2	1F	N08E43	3242
04 Mar	1410	1411	1415		SF	N11E40	3242
04 Mar	1435	1440	1444	C4.8	1F	N13E43	3242
04 Mar	1519	1557	1626	M5.2			3234
04 Mar	1842	1846	1850		SF	N12E37	3242
04 Mar	1912	1913	1921		SF	N20W44	3243
04 Mar	1950	1957	2001	C4.8			3234

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
04 Mar	2025	2031	2051	C6.5			3234
04 Mar	2108	2112	2115		SF	N18W48	3243
04 Mar	2130	2131	2133		SF	N11E39	3242
04 Mar	2200	2210	2218	C4.2	SF	N20W48	3243
04 Mar	2232	2232	2236		SF	N18W48	3243
04 Mar	2333	2340	2344	C3.3			3242
05 Mar	0037	0043	0048	C3.2			3242
05 Mar	0144	0145	0148		SF	N11E44	3242
05 Mar	0151	0156	0210		SF	N11E44	3242
05 Mar	0240	0252	0303	M1.3	SF	N09W01	3238
05 Mar	0307	0311	0313		SF	N11E44	3242
05 Mar	0344	0354	0403	C8.2	SN	N18W47	3243
05 Mar	0428	0429	0430		SF	N11E44	3242
05 Mar	0554	0554	0556		SF	N23E80	3246
05 Mar	0600	0600	0603		SF	N23E80	3246
05 Mar	0635	0640	0645		SF	N11E44	3242
05 Mar	0718	0721	0723		SF	N23E80	3246
05 Mar	1124	1133	1137	C3.6			3242
05 Mar	1323	1358	1421	C6.2			3243
05 Mar	1516	1517	1519		SF	N23E73	3246
05 Mar	1624	1641	1653	M1.0	SF	N10W12	3238
05 Mar	1653	1701	1711	M1.0			3242
05 Mar	1805	1806	1820		SF	S23W43	3244
05 Mar	1923	1933	1944	C3.8			3243
05 Mar	2054	2102	2117	C2.1			3245
05 Mar	2129	2136	2141	M5.0			3243

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 3229												
16 Feb	N30E70	36	240	6	Dao	2	B	2	1		1				
17 Feb	N25E58	35	400	7	Dko	6	B	5		1	2		1		
18 Feb	N26E45	35	280	7	Dki	14	BD				5				
19 Feb	N26E32	35	300	11	Eki	16	BD	2			1				
20 Feb	N26E19	34	310	12	Ekc	16	BD	4			5				
21 Feb	N25E07	31	240	12	Esi	18	BG	1			4				
22 Feb	N25W06	30	200	14	Esi	17	B								
23 Feb	N25W18	32	140	14	Eso	12	B								
24 Feb	N25W32	33	150	14	Eso	12	B		1				1		
25 Feb	N25W46	34	150	14	Eso	12	B	2	1					1	
26 Feb	N25W60	34	130	12	Eso	7	B								
27 Feb	N26W74	35	40	2	Cso	53	B								
28 Feb	N26W88	36	plage												
								16	3	1	18	0	2	1	0

Crossed West Limb.
Absolute heliographic longitude: 30

			Region 3230												
18 Feb	S23E71	9	90	3	Cao	4	B								
19 Feb	S23E57	10	90	2	Hax	3	A	1							
20 Feb	S23E44	9	110	2	Hsx	3	A								
21 Feb	S23E30	9	100	4	Dso	3	B								
22 Feb	S22E18	9	120	4	Dso	7	B	1							
23 Feb	S22E06	8	120	5	Cso	11	B	2			1				
24 Feb	S22W08	9	120	5	Cso	11	B	1			2	1			
25 Feb	S22W22	10	120	5	Cso	11	B								
26 Feb	S22W36	10	110	5	Cso	10	B								
27 Feb	S23W46	7	30	3	Cro	3	B								
28 Feb	S23W58	5	10	1	Axx	2	A								
01 Mar	S23W72	7	0	2	Axx	2	A								
02 Mar	S23W86	8	plage												
								5	0	0	3	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 8

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 3233													
20 Feb	N14W01	53	10	1	Axx	1	A								
21 Feb	N14W14	53	0		Axx	1	A								
22 Feb	N14W28	55	plage												
23 Feb	N14W42	56	plage												
24 Feb	N14W56	57	plage												
25 Feb	N14W70	58	plage												
26 Feb	N14W84	58	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 53

		Region 3234													
20 Feb	N24E76	337	80	10	Dai	5	B	3	1						
21 Feb	N24E60	340	80	10	Dao	4	B	4	2		1				
22 Feb	N25E47	337	300	11	Ekc	12	BG	8	2		5				
23 Feb	N25E33	340	580	15	Ekc	25	BD	5	1		5				
24 Feb	N25E19	342	580	15	Ekc	25	BD	2			4				
25 Feb	N25E05	343	580	15	Ekc	25	BD	1							
26 Feb	N25W09	343	580	15	Ekc	25	BD	5							
27 Feb	N25W22	343	750	17	Fkc	40	BGD	1			2				
28 Feb	N25W36	346	860	18	Fkc	25	BGD	3	1		2				
01 Mar	N25W49	343	850	18	Fkc	20	BGD	5			10	1			
02 Mar	N25W63	345	830	14	Ekc	20	BGD	2	1		9	1			
03 Mar	N25W76	345	820	14	Ekc	18	BGD	1	1	1	4	2			
04 Mar	N25W90	345	plage					4	1		3				
								44	10	1	45	4	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 343

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 3235												
23 Feb	N19E08	5	40	4	Dao	6	B	2	1		6				
24 Feb	N19W06	7	40	4	Dao	6	B	2	1						
25 Feb	N19W20	8	40	4	Dao	6	B								
26 Feb	N19W34	8	30	4	Cao	5	B	1							
27 Feb	N19W45	6	10	4	Bxo	2	B								
28 Feb	N19W59	7	plage								1				
01 Mar	N19W73	8	plage												
02 Mar	N19W87	9	plage												
								5	2	0	7	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 7

			Region 3236												
23 Feb	S28E19	354	10	3	Cro	4	B				1				
24 Feb	S28E05	356	80	6	Dai	14	B	1			2				
25 Feb	S28W09	357	80	6	Dai	14	B	2	1						
26 Feb	S28W23	357	70	6	Dai	11	B								
27 Feb	S27W32	353	140	9	Cso	20	B								
28 Feb	S27W44	352	80	9	Cso	9	B								
01 Mar	S27W58	355	30	8	Cso	5	B	2							
02 Mar	S26W72	354	10	3	Bxo	2	B	1			2				
03 Mar	S26W85	354	plage					1			3				
								7	1	0	8	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 356

			Region 3237												
24 Feb	S12E23	338	10	3	Bxo	2	B								
25 Feb	S12E09	339	10	1	Axx	1	A								
26 Feb	S12W05	339	10	3	Bxo	2	B								
27 Feb	S08W12	333	10	1	Bxo	3	B								
28 Feb	S08W25	332	0	2	Axx	2	A								
01 Mar	S08W38	334	plage												
02 Mar	S08W52	334	plage												
03 Mar	S08W65	334	plage												
04 Mar	S08W79	334	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 339

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 3238												
27 Feb	N08E62	259	50	1	Hsx	1	A								
28 Feb	N09E50	258	70	2	Hsx	1	A								
01 Mar	N09E36	259	70	2	Hsx	1	A								
02 Mar	N09E22	260	70	2	Hsx	1	A								
03 Mar	N09E09	260	70	2	Hsx	1	A								
04 Mar	N09W05	260	80	3	Hsx	3	A								
05 Mar	N09W18	260	90	3	Cso	4	B		2		2				
								0	2	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 260

			Region 3239												
28 Feb	N30E69	238	90	3	Hsx	1	A								
01 Mar	N30E55	241	100	2	Hsx	1	A								
02 Mar	N31E41	241	100	2	Hsx	1	A								
03 Mar	N31E28	241	100	2	Hsx	1	A	1							
04 Mar	N31E14	241	100	3	Hsx	1	A								
05 Mar	N31E01	241	110	3	Hsx	1	A								
								1	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 241

			Region 3240												
01 Mar	S16E55	240	10	2	Bxo	3	B	2	1		1	1			
02 Mar	S16E41	241	10	2	Bxo	2	B								
03 Mar	S16E28	241	30	4	Cro	6	B								
04 Mar	S16E14	241	10	5	Bxo	6	B								
05 Mar	S16E01	241	10	5	Bxo	5	B								
								2	1	0	1	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 241

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 3241												
01 Mar	N27E73	222	50	4	Hsx	3	A								
02 Mar	N27E59	223	70	4	Hsx	2	A								
03 Mar	N27E46	223	70	4	Hsx	2	A								
04 Mar	N27E32	223	60	2	Hsx	1	A								
05 Mar	N27E19	223	50	2	Hsx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 223

			Region 3242												
02 Mar	N10E66	216	220	6	Cao	5	B								
03 Mar	N10E53	216	230	6	Cao	8	B	2			10	1			
04 Mar	N10E39	216	140	8	Cai	16	B	6	1		5	2	2		
05 Mar	N10E26	216	170	14	Eai	16	B	2	1		5				
								10	2	0	20	3	2	0	0

Still on Disk.
Absolute heliographic longitude: 216

			Region 3243												
03 Mar	N18W37	306	10	4	Bxo	4	B								
04 Mar	N18W51	306	90	6	Cao	12	B	1	1		5				
05 Mar	N18W64	306	110	8	Dao	12	B	3	1		1				
								4	2	0	6	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 306

			Region 3244												
03 Mar	S22W19	288	20	4	Cro	2	B								
04 Mar	S22W33	288	20	2	Hrx	2	A								
05 Mar	S22W46	288	30	6	Dso	5	B				1				
								0	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 288

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 3245													
03 Mar	S23E74	195	80	3	Hsx	1	A								
04 Mar	S23E60	195	120	3	Hsx	1	A	1			1				
05 Mar	S23E47	195	140	4	Hax	2	A	1							
								2	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 195

		Region 3246													
05 Mar	N23E70	172	60	2	Hsx	1	A				4				
								0	0	0	4	0	0	0	0

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Absolute heliographic longitude: 172

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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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