Space Weather Highlights
01 May - 07 May 2023

SWPC PRF 2488
08 May 2023

Solar activity reached high levels on 01 and 03 May, moderate levels on 04, 05, and 07 May, and low levels on 02 and 06 May. A total of eleven M-flares were observed this period, of which were two R2 (Moderate) events and nine R1 (Minor) events. The largest events were an M7 flare at 01/1309 UTC from Region 3288 (S23, L=267, class/area=Ehc/420 on 30 Apr) and an M7 flare at 03/1045 UTC from Region 3293 (N13, L=149, class/area=Dhc/290 on 03 May). Region 3296 (N16, L=135, class/area=Dki/300 on 04 May) produced four R1 events over 04, 05, and 07 May. Earth-directed CMEs were detected following an M3 flare at 04/0844 UTC from Region 3296, a C9 flare at 05/0706 UTC from Region 3297 (N08, L=119, class/area=Eki/500 on 04 May), and an M2 flare at 05/0801 UTC from Region 3296.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 01-06 May and moderate levels on 07 May.

Geomagnetic field activity reached G1-G2 (Minor-Moderate) storm levels on 06 May due to CME passage and positive polarity CH HSS influences. Active conditions were observed on 01 May due to negative polarity CH HSS influences and again on 07 May due to positive polarity CH HSS influence and CME (from 04 May) passage. Quiet and quiet to unsettled levels were observed throughout the remainder of the week.

Space Weather Outlook
08 May - 03 June 2023

Solar activity is expected to be low to moderate throughout the period with M-class flare activity (R1-R2 (Minor-Moderate)) likely over 08 May-03 Jun.

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 11-20 May and 23 May-02 Jun. Normal to moderate levels are likely on 08-10, 21-22 May, and 03 Jun.

Geomagnetic field activity is likely to reach G1-G3 (Minor-Strong) storm levels on 08 May, and G1 (Minor) levels on 09 May, in response to CME (from 04 May) passage and positive polarity CH HSS influences. G1 (Minor) storms are likely again on 24 May, with active levels likely on 23 and 25-26 May, due to negative polarity CH HSS influences. Quiet and quiet to unsettled levels are expected to prevail throughout the remainder of the 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
01 May	148	87	840	C1.2	17	2	0	3	0	0	0	0
02 May	157	134	1110	B9.9	12	0	0	1	0	0	0	0
03 May	156	143	1170	C1.2	14	5	0	15	4	1	0	0
04 May	162	139	1220	C1.5	9	1	0	11	0	0	0	0
05 May	162	90	1020	C1.2	4	2	0	2	1	0	0	0
06 May	152	99	1050	B8.8	7	0	0	4	0	0	0	0
07 May	157	99	1050	B7.3	5	2	0	2	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
01 May	6.1e+04	2.3e+04	4.7e+08
02 May	5.6e+04	2.3e+04	2.4e+08
03 May	4.6e+04	2.3e+04	3.4e+08
04 May	6.2e+04	2.3e+04	2.5e+08
05 May	1.3e+05	2.3e+04	2.5e+08
06 May	4.9e+05	2.3e+04	7.7e+06
07 May	1.3e+06	2.2e+04	1.5e+06

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
01 May	8	2-1-3-2-2-1-2-3	11	2-2-3-3-3-2-2-3	10	3-1-3-2-2-2-2-4
02 May	9	3-3-1-3-2-2-2-1	13	3-3-3-5-1-1-1-0	9	3-3-2-3-2-1-2-1
03 May	4	0-0-1-1-2-2-2-1	1	0-1-0-0-1-0-0-1	4	0-1-1-1-1-1-1-2
04 May	7	0-2-3-1-2-2-2-2	6	1-1-4-1-1-1-1-1	6	1-2-2-1-1-2-2-2
05 May	4	1-1-1-1-2-2-1-1	2	1-1-0-2-0-0-0-0	5	2-1-1-1-1-1-1-1
06 May	21	4-5-3-3-4-3-3-2	40	5-5-4-6-5-5-3-2	30	5-6-4-4-4-3-3-2
07 May	8	1-2-2-2-2-3-2-2	13	2-2-3-4-2-3-3-2	5	1-2-2-2-2-4-2-3

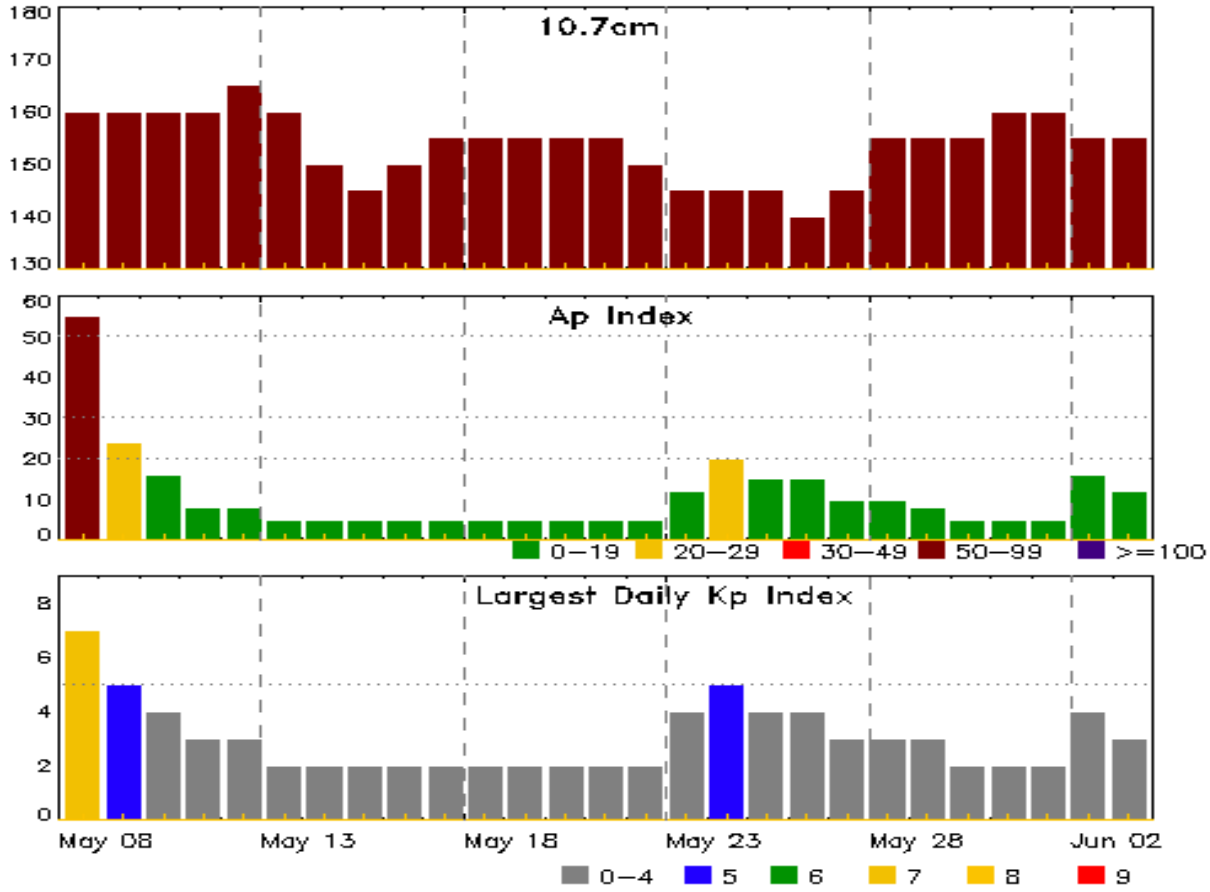
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
01 May 0500	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	26/1235
01 May 1311	ALERT: X-ray Flux exceeded M5	01/1309
01 May 1326	SUMMARY: X-ray Event exceeded M5	01/1302 - 1313
01 May 2300	WARNING: Geomagnetic K = 4	01/2300 - 02/0900
01 May 2355	ALERT: Geomagnetic K = 4	01/2355
02 May 0648	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	26/1235
03 May 0459	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	26/1235
03 May 0846	SUMMARY: 10cm Radio Burst	03/0726 - 0731
03 May 1048	ALERT: X-ray Flux exceeded M5	03/1045
03 May 1112	SUMMARY: X-ray Event exceeded M5	03/1036 - 1049
04 May 0500	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	26/1235
04 May 0849	ALERT: Type II Radio Emission	04/0837
04 May 0910	SUMMARY: 10cm Radio Burst	04/0833 - 0853
04 May 0914	ALERT: Type IV Radio Emission	04/0848
05 May 0459	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	26/1235
05 May 0751	ALERT: Type II Radio Emission	05/0706
05 May 0822	ALERT: Type IV Radio Emission	05/0735
05 May 0959	SUMMARY: 10cm Radio Burst	05/0735 - 0858
05 May 1855	WATCH: Geomagnetic Storm Category G2 predicted	
05 May 2015	WATCH: Geomagnetic Storm Category G2 predicted	
06 May 0114	ALERT: Type II Radio Emission	06/0042
06 May 0114	ALERT: Type IV Radio Emission	06/0100
06 May 0149	WARNING: Geomagnetic K = 4	06/0150 - 1500
06 May 0214	ALERT: Geomagnetic K = 4	06/0210
06 May 0221	WARNING: Geomagnetic K = 5	06/0220 - 1500
06 May 0256	ALERT: Geomagnetic K = 5	06/0253

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
06 May 0412	ALERT: Geomagnetic K = 5	06/0409
06 May 0448	WARNING: Geomagnetic K = 6	06/0440 - 1200
06 May 0453	ALERT: Geomagnetic K = 6	06/0450
06 May 1423	EXTENDED WARNING: Geomagnetic K = 4	06/0150 - 07/0600
06 May 1423	EXTENDED WARNING: Geomagnetic K = 5	06/0220 - 2359
06 May 1557	WATCH: Geomagnetic Storm Category G3 predicted	
07 May 1516	WARNING: Geomagnetic Sudden Impulse expected	07/1530 - 1615
07 May 1556	SUMMARY: Geomagnetic Sudden Impulse	07/1544
07 May 1600	WARNING: Geomagnetic K = 5	07/1600 - 08/0600
07 May 1600	WARNING: Geomagnetic K = 4	07/1600 - 08/0900
07 May 1606	ALERT: Geomagnetic K = 4	07/1605

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
08 May	160	55	7	22 May	150	5	2
09	160	24	5	23	145	12	4
10	160	16	4	24	145	20	5
11	160	8	3	25	145	15	4
12	165	8	3	26	140	15	4
13	160	5	2	27	145	10	3
14	150	5	2	28	155	10	3
15	145	5	2	29	155	8	3
16	150	5	2	30	155	5	2
17	155	5	2	31	160	5	2
18	155	5	2	01 Jun	160	5	2
19	155	5	2	02	155	16	4
20	155	5	2	03	155	12	3
21	155	5	2				

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
01 May	0055	0121	0129	M1.1	0.012			3288				
01 May	1302	1309	1313	M7.1	0.012			3288	1300	150		
03 May	0915	0927	0933	M4.2	0.021	SF	S24W83	3288				
03 May	1003	1014	1019	M3.1	0.015			3293				
03 May	1036	1045	1049	M7.2	0.024			3293				
03 May	1224	1235	1241	M1.7	0.009			3293				
03 May	1343	1350	1354	M2.2	0.007	1B	N14E43	3293				
04 May	0805	0844	0908	M3.9	0.080	SB	N17E43	3296	22000	350	2	2
05 May	0730	0801	0833	M2.1	0.060			3296	5300	550	2	2
05 May	1518	1531	1539	M1.2	0.006	1N	N14E27	3296	340			
07 May	2140	2234	2253	M1.5	0.026			3296	300			
07 May	2253	2323	0001	M1.6	0.064			3296	3000			

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
01 May	0018	0028	0035	C1.9			3288
01 May	0055	0121	0129	M1.1			3288
01 May	0248	0302	0317	C3.6			3293
01 May	0441	0452	0503	C3.5			3293
01 May	0556	0601	0609	C1.6			3293
01 May	0609	0621	0627	C1.9			3293
01 May	0653	0707	0733	C5.3			3293
01 May	0741	0747	0754	C5.2			3293
01 May	1103	1107	1127	C1.6			3293
01 May	1152	1159	1203	C2.7			3288
01 May	1302	1309	1313	M7.1			3288
01 May	1338	1345	1353	C4.2			
01 May	1426	1430	1441	C7.4			
01 May	1516	1527	1539	C2.7	SF	N20E08	3289
01 May	1603	1604	1606		SF	N13E67	3293
01 May	1732	1739	1743	C2.8			3293
01 May	1859	1908	1917	C2.1	SF	N13E65	3293
01 May	2142	2148	2152	C3.4			3288
01 May	2202	2216	2219	C3.9			3293

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
01 May	2219	2232	2242	C7.4			3293
02 May	0236	0244	0251	C1.8			3289
02 May	0403	0414	0424	C2.0			3293
02 May	0437	0442	0446	C4.3			3288
02 May	0453	0458	0502	C1.8			3288
02 May	0552	0604	0611	C5.1			3288
02 May	1044	1059	1109	C2.4			3288
02 May	1534	1545	1559		SF	N15E66	
02 May	1729	1733	1737	C3.3			3288
02 May	1806	1818	1833	C5.5			3288
02 May	1855	1859	1906	C3.5			3288
02 May	2055	2118	2126	C2.1			3297
02 May	2126	2134	2140	C2.3			3297
02 May	2253	2257	2301	C2.2			3288
03 May	0000	0005	0012		SF	N15E64	3296
03 May	0016	0016	0019		SF	S19W89	3285
03 May	0058	0103	0107	C2.3			
03 May	0155	0156	0158		SF	N15E64	3296
03 May	0306	0322	0343	C2.5			
03 May	0343	0350	0355	C2.1			
03 May	0404	0404	0406		SF	S24W83	3288
03 May	0444	0508	0516	C4.7	1F	S24W83	3288
03 May	0714	0723	0725	C3.3			3288
03 May	0721	0723	0735		SF	N16E59	3296
03 May	0726	0737	0849		1F	S24W83	3288
03 May	0802	0805	0810		SF	N16E59	3296
03 May	0811	0812	0816		SF	N16E59	3296
03 May	0834	0835	0844		SF	N16E59	3296
03 May	0847	0847	0850		SF	N16E59	3296
03 May	0857	0857	0902		SF	N14E44	3293
03 May	0913	0925	0935		1B	N14E44	3293
03 May	0915	0927	0933	M4.2	SF	S24W83	3288
03 May	1003	1014	1019	M3.1			3293
03 May	1036	1045	1049	M7.2			3293
03 May	1204	1212	1218	C3.9			3293
03 May	1224	1235	1241	M1.7			3293
03 May	1335	1349	1420		2B	N13E41	3293
03 May	B1338	U1348	A1412		1B	N14E43	3293

Flare List

Date	Time			X-ray	Optical		
	Begin	Max	End	Class	Imp/ Brtns	Location Lat CMD	Rgn #
03 May	B1338	U1443	A1449		SF	N16E55	3296
03 May	1343	1350	1354	M2.2			3293
03 May	1455	1500	1504	C3.1	SF	N13E42	3293
03 May	B1530	U1535	A1538		SF	N16E54	3296
03 May	1623	1630	1636	C1.9			3288
03 May	1743	1751	1757	C1.8			3297
03 May	1809	1822	1832	C3.0			3293
03 May	1920	1927	1933	C1.7			3297
03 May	2047	2053	2058	C4.1			
03 May	2130	2146	2207	C2.0			
03 May	2207	2239	2249	C2.6			
03 May	2330	2351	2356		SF	N16E51	3296
04 May	0003	0003	0007		SF	N16E50	3296
04 May	0037	0041	0046	C2.5			3288
04 May	0111	0111	0114		SF	N16E50	3296
04 May	0154	0215	0229	C4.9	SF	S22W82	3288
04 May	0224	0227	0231		SF	N16E50	3296
04 May	0251	0254	0258	C4.0	SF	S22W82	3288
04 May	0347	0356	0359		SF	N17E48	3296
04 May	0432	0432	0435		SF	N17E46	3296
04 May	0454	0500	0500		SF	N17E46	3296
04 May	0458	0504	0512	C5.2	SF	N14E34	3293
04 May	0805	0844	0908	M3.9	SB	N17E43	3296
04 May	1428	1433	1440	C2.8			3288
04 May	1555	1605	1620	C2.5			3293
04 May	1804	1811	1816	C3.3			3293
04 May	1820	1848	1921	C6.3			3288
04 May	2015	2016	2024		SF	S07E69	3299
04 May	2121	2129	2146	C2.5			3288
05 May	0053	0057	0103	C2.5			
05 May	0514	0533	0544	C4.9			
05 May	0652	0706	0716	C9.5			3297
05 May	0730	0801	0833	M2.1			3296
05 May	1518	1531	1539	M1.2	1N	N14E27	3296
05 May	2119	2119	2133		SF	N10E40	3297
05 May	2211	2227	2237	C9.7			3288
05 May	2243	2245	2250		SF	N10E40	3297
06 May	0011	0031	0036	C2.3	SF	N10E40	3297

Flare List

	Time				Optical		
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
06 May	0036	0042	0049	C2.8			3297
06 May	0325	0326	0327		SF	N15E20	3296
06 May	0343	0402	0409	C5.2			3296
06 May	0718	0726	0734	C2.2			3297
06 May	1450	1459	1503	C3.6			3296
06 May	1738	1745	1752	C1.8	SF	N09E25	3297
06 May	2142	2157	2213	C4.7	SN	S08E40	3299
07 May	0137	0150	0201	C1.2	SF	N11E33	3297
07 May	0348	0352	0357	C1.3			3293
07 May	0959	1004	1034	C1.8			3293
07 May	1201	1206	1214	C1.5			3293
07 May	2101	2105	2110	C1.6	SF	N14W04	3296
07 May	2140	2234	2253	M1.5			3296
07 May	2253	2323	0001	M1.6			3296

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 3285												
21 Apr	S17E69	272	140	4	Dso	4	B								
22 Apr	S17E57	272	180	8	Dao	3	B	1							
23 Apr	S17E44	272	190	9	Dao	7	B								
24 Apr	S18E33	270	220	10	Dao	7	B	1							
25 Apr	S18E19	270	220	10	Dao	7	B								
26 Apr	S17E05	271	120	6	Cso	4	B								
27 Apr	S19W10	273	240	7	Cao	5	B								
28 Apr	S18W23	273	220	7	Cao	5	B	3							
29 Apr	S17W37	273	170	4	Cao	5	B								
30 Apr	S17W50	273	140	6	Cao	7	B								
01 May	S17W62	272	120	6	Cao	6	B								
02 May	S17W75	271	80	3	Hsx	2	A								
03 May	S17W91	274	30	2	Hsx	2	A				1				
								5	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 271

			Region 3286												
24 Apr	S11E40	263	10	1	Axx	1	A								
25 Apr	S11E26	263	10	1	Axx	1	A								
26 Apr	S11E12	264	10	1	Axx	2	A								
27 Apr	S11W02	265	10	5	Bxo	3	B								
28 Apr	S11W14	264	10	3	Bxo	4	B								
29 Apr	S11W28	265	plage												
30 Apr	S11W42	265	10	1	Axx	1	A								
01 May	S11W56	266	plage												
02 May	S11W70	267	plage												
03 May	S11W84	268	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 265

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 3287												
24 Apr	S25E63	239	10	1	Axx	1	A								
25 Apr	S25E49	240	10	1	Axx	1	A								
26 Apr	S25E35	241	plage												
27 Apr	S25E21	242	plage												
28 Apr	S25E07	243	plage												
29 Apr	S25W07	244	plage												
30 Apr	S25W21	244	plage												
01 May	S25W35	245	plage												
02 May	S25W49	246	plage												
03 May	S25W63	247	plage												
04 May	S25W77	248	plage												
								0	0	0	0	0	0	0	0

Died on Disk.
Absolute heliographic longitude: 243

			Region 3288												
25 Apr	S22E24	265	180	7	Dso	4	B	1			1				
26 Apr	S22E10	266	140	8	Dso	5	B	1			3				
27 Apr	S23W07	269	380	11	Eki	29	BGD	8	1		5				
28 Apr	S23W19	269	390	13	Ehi	23	BGD	10			8	1			
29 Apr	S23W31	268	400	12	Ehi	13	BGD	8			9	2			
30 Apr	S23W44	267	420	14	Ehc	19	BGD	3			1				
01 May	S23W56	266	400	15	Ehc	13	BGD	3	2						
02 May	S23W68	268	300	15	Ehi	8	BD	8							
03 May	S22W82	266	120	15	Eso	6	B	3	1		2	2			
								45	4	0	29	5	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 269

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 3289												
25 Apr	N20E67	222	90	1	Hax	2	A								
26 Apr	N20E58	219	150	6	Dso	3	B	1			7				
27 Apr	N20E51	216	180	3	Dao	5	B	2			3				
28 Apr	N20E37	213	180	4	Dsi	10	B	1				1			
29 Apr	N20E24	213	200	5	Dai	7	B	1			1				
30 Apr	N20E10	213	220	5	Dai	8	B								
01 May	N20W03	213	200	5	Dai	8	B	1			1				
02 May	N20W14	214	150	6	Dsi	14	B	1							
03 May	N20W28	211	30	5	Cro	7	B								
04 May	N20W41	212	10	4	Bxo	4	B								
05 May	N20W55	212	plage												
06 May	N20W68	212	plage												
07 May	N20W81	212	plage												
								7	0	0	12	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 213

			Region 3291												
26 Apr	N09E12	264	20	3	Bxo	4	B								
27 Apr	N09W02	265	30	5	Cro	20	B								
28 Apr	N08W15	265	30	5	Cro	8	B								
29 Apr	N08W29	266	30	6	Cri	6	B								
30 Apr	N08W43	266	30	6	Cro	8	B								
01 May	N07W59	269	20	3	Cro	5	B								
02 May	N07W74	271	10	1	Axx	2	A								
03 May	N07W89	273	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 265

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 3292												
27 Apr	N14E62	201	10	1	Hrx	1	A								
28 Apr	N15E43	204	20	1	Hrx	1	A								
29 Apr	N14E29	205	20	1	Hrx	1	A								
30 Apr	N14E16	207	plage												
01 May	N14E02	208	plage												
02 May	N14W12	209	plage												
03 May	N14W26	210	plage												
04 May	N14W40	211	plage												
05 May	N14W54	211	plage												
06 May	N14W67	211	plage												
07 May	N14W80	211	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 208

			Region 3293												
30 Apr	N13E82	141	30	3	Cao	2	B	2	1						
01 May	N12E63	147	100	9	Dac	5	BD	11			2				
02 May	N13E51	149	250	10	Dhi	9	BD	1							
03 May	N13E35	149	290	9	Dhc	12	BD	3	4		2	2	1		
04 May	N13E21	150	240	10	Dac	14	BD	3			1				
05 May	N13E07	150	110	10	Dai	6	B								
06 May	N13W06	150	130	10	Dai	10	B								
07 May	N13W19	150	130	10	Dai	10	B	3							
								23	5	0	5	2	1	0	0

Still on Disk.
Absolute heliographic longitude: 150

			Region 3294												
02 May	S08E73	127	100	2	Hsx	1	A								
03 May	S08E59	125	120	2	Hsx	1	A								
04 May	S08E44	127	120	2	Hsx	1	A								
05 May	S08E30	127	120	2	Hsx	1	A								
06 May	S08E17	127	120	4	Hsx	2	A								
07 May	S08E04	127	120	4	Hsx	2	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 127

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 3295												
02 May	N15W21	221	10	1	Axx	2	A								
03 May	N15W34	218	10	3	Bxo	3	B								
04 May	N16W47	216	10	4	Bxo	3	B								
05 May	N16W61	218	plage												
06 May	N16W74	218	plage												
07 May	N16W87	218	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 221

			Region 3296												
02 May	N15E64	133	30	3	Cso	5	B								
03 May	N16E49	135	170	4	Dai	12	B				10				
04 May	N16E34	135	300	5	Dki	11	B		1		7				
05 May	N16E20	137	280	5	Dki	11	B		2			1			
06 May	N16E07	137	280	15	Ekc	12	B	2			1				
07 May	N16W06	137	280	15	Ekc	12	B	1	2		1				
								3	5	0	19	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 137

			Region 3297												
02 May	N08E76	124	180	3	Hax	1	A	2							
03 May	N08E64	120	400	10	Dki	20	B	2							
04 May	N08E50	119	500	11	Eki	18	B								
05 May	N08E36	121	460	11	Ekc	18	B	1			2				
06 May	N08E23	121	460	11	Ekc	18	B	4			2				
07 May	N08E10	121	460	12	Ekc	18	B	1			1				
								10	0	0	5	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 121

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 3298													
04 May	S16E32	137	10	3	Bxo	2	B								
05 May	S16E18	139	plage												
06 May	S16E05	139	plage												
07 May	S16W08	139	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 139

		Region 3299													
04 May	S06E69	101	30	4	Dao	6	B				1				
05 May	S06E55	102	50	5	Dao	4	B								
06 May	S06E42	102	60	7	Cao	7	B	1			1				
07 May	S06E29	102	60	7	Cao	7	B								
								1	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 102

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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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