

**Space Weather Highlights**  
**08 July - 14 July 2024**

**SWPC PRF 2550**  
**15 July 2024**

Solar activity was at low to strong levels during the period. R1 (minor) solar radiation storms were observed on 08, 10, 11, 13 and 14 Jul, R2 (moderate) storms were observed on 13 Jul and R3 (strong) storms were observed on 14 Jul. Regions 3738 (S09, L=213, class/area Fkc/1140 on 14 Jul), 3745 (S15, L=156, class/area Dro/020 on 13 Jul) and 3747 (S24, L=155, class/area Cso/180 on 13 Jul) contributed a majority of the activity. None of the activity resulted in any Earth-directed CMEs.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels.

Geomagnetic field activity was at quiet to isolated unsettled levels with no discernible activity during the period.

**Space Weather Outlook**  
**15 July - 10 August 2024**

Solar activity is expected to be at low to moderate levels throughout the period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at low to moderate levels.

Geomagnetic field activity is expected to be at unsettled to active levels on 18-20 Jul due to recurrent CH HSS influences. Mostly quiet conditions are expected on the remaining days, pending CME activity.



### **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					
08 July	169	95	470	C2.2	16	1	0	15	0	0	0	0
09 July	180	143	570	C1.9	7	0	0	13	0	0	0	0
10 July	214	190	1270	C2.7	7	5	0	19	3	0	0	0
11 July	205	188	1440	C1.9	5	2	0	11	3	0	0	0
12 July	210	162	1740	C1.8	5	0	0	10	0	0	0	0
13 July	238	214	1960	C2.1	5	6	0	17	2	1	0	0
14 July	234	217	2050	C3.3	12	4	1	34	2	0	0	0

### **Daily Particle Data**

Date	Proton Fluence (protons/cm <sup>2</sup> -day -sr)		>2MeV	Electron Fluence (electrons/cm <sup>2</sup> -day -sr)	
	>1 MeV	>10 MeV		>2MeV	
08 July	1.1e+05	1.8e+04			2.2e+06
09 July	8.4e+04	1.8e+04			2.0e+06
10 July	6.7e+04	1.8e+04			1.9e+06
11 July	1.5e+05	1.9e+04			2.2e+06
12 July	8.7e+04	2.0e+04			1.4e+06
13 July	1.6e+05	1.9e+04			1.5e+06
14 July	2.4e+05	1.9e+04			1.5e+06

### **Daily Geomagnetic Data**

Date	Middle Latitude		High Latitude		Estimated	
	A	K-indices	A	K-indices	A	Planetary K-indices
08 July	11	2-2-2-3-4-2-2-2	14	3-2-2-5-3-2-2-2	10	2-2-2-3-3-2-2-2
09 July	8	2-2-1-2-3-2-2-2	9	2-2-1-4-3-1-1-1	6	2-2-1-2-2-1-1-2
10 July	8	2-2-2-2-2-2-3-2	5	2-2-1-2-1-1-1-1	6	2-2-1-2-1-2-1-2
11 July	7	2-2-2-2-2-2-2-2	4	1-2-2-0-1-1-1-1	6	2-2-2-1-2-1-1-2
12 July	7	2-2-2-2-2-1-2-2	6	2-2-3-1-1-1-1-1	5	2-2-2-1-1-1-1-1
13 July	6	1-1-1-1-3-2-2-1	2	1-1-1-0-1-0-1-1	4	1-1-1-1-2-1-1-1
14 July	9	1-1-1-3-3-2-3-2	2	1-0-0-1-1-0-1-1	4	1-1-1-2-2-1-2-2

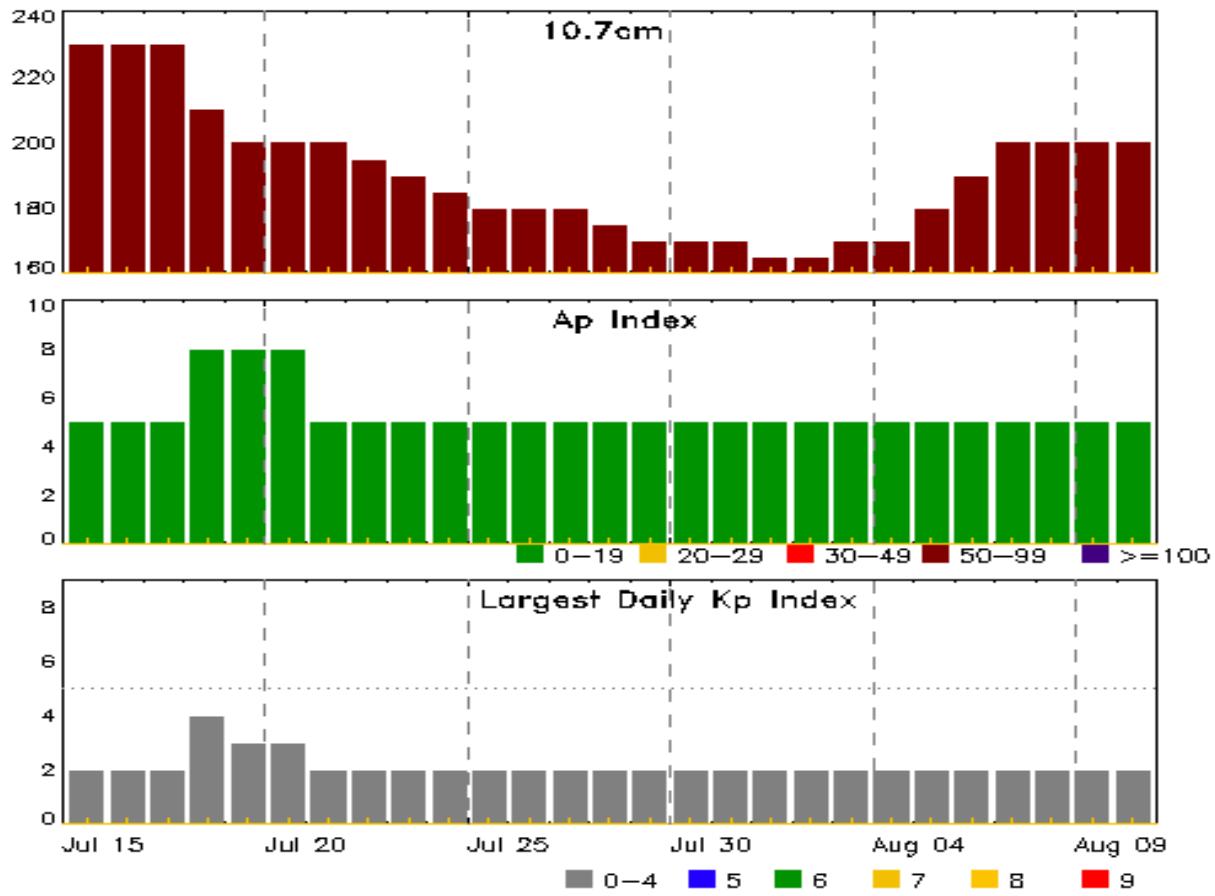


### *Alerts and Warnings Issued*

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
11 Jul 0005	WATCH: Geomagnetic Storm Category G1 predicted	
13 Jul 1241	ALERT: X-ray Flux exceeded M5	13/1237
13 Jul 1257	ALERT: Type II Radio Emission	13/1242
13 Jul 1325	SUMMARY: X-ray Event exceeded M5	13/1221 - 1258
13 Jul 2304	ALERT: X-ray Flux exceeded M5	13/2302
13 Jul 2330	SUMMARY: X-ray Event exceeded M5	13/2244 - 2312
14 Jul 0234	ALERT: X-ray Flux exceeded M5	14/0233
14 Jul 0251	SUMMARY: 10cm Radio Burst	14/0231 - 0235
14 Jul 0303	SUMMARY: X-ray Event exceeded X1	14/0233 - 0248



## 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
15 Jul	230	5	2	29 Jul	170	5	2
16	230	5	2	30	170	5	2
17	230	5	2	31	170	5	2
18	210	8	4	01 Aug	165	5	2
19	200	8	3	02	165	5	2
20	200	8	3	03	170	5	2
21	200	5	2	04	170	5	2
22	195	5	2	05	180	5	2
23	190	5	2	06	190	5	2
24	185	5	2	07	200	5	2
25	180	5	2	08	200	5	2
26	180	5	2	09	200	5	2
27	180	5	2	10	200	5	2
28	175	5	2				

## ***Energetic Events***

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half Max	Class	Integ Flux	Imp/ Brtns	Location Lat	CMD #	Radio Flux 245	2695	II	IV
08 Jul	1234	1241	1246	M1.1	0.005	SF	S23E78					
10 Jul	0544	0559	0609	M1.5	0.014	SN	S10E21	3738				
10 Jul	0926	0945	0953	M1.3	0.018	SF	S10E10	3738				
10 Jul	1144	1204	1217	M1.4	0.002	1F	S10E01	3738				
10 Jul	1251	1304	1313	M1.1	0.011	1F	S10E01	3738				
10 Jul	1525	1537	1546	M1.0	0.009	SF	S08E03	3738				
11 Jul	0403	0417	0437	M1.2	0.021					3745		
11 Jul	0617	0625	0632	M1.2	0.010					3738		
13 Jul	0255	0318	0336	M1.4	0.024					3738		
13 Jul	1221	1242	1258	M5.3	0.076	1N	S08W42	3738	250			1
13 Jul	1459	1530	1541	M1.8	0.004	SF	S25E28	3747				
13 Jul	1541	1544	1548	M1.9	0.009					3747		
13 Jul	1925	1930	1934	M1.0	0.004	SF	S05W45	3738				
13 Jul	2244	2301	2312	M5.0	0.042					3738		
14 Jul	0105	0116	0131	M1.7	0.020					3738		
14 Jul	0223	0234	0248	X1.2	0.092					3738		360
14 Jul	0405	0413	0418	M3.0	0.002	SF	S04W49	3738		460		
14 Jul	1016	1020	1024	M1.0	0.004	SF	S13W45	3738				
14 Jul	2050	2057	2103	M1.0	0.002					3738		

## ***Flare List***

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat	CMD # Rgn
08 Jul	0148	0159	0226	C5.6			
08 Jul	0246	0251	0255	C5.3			3738
08 Jul	0346	0355	0402	C4.3	SF	S14E42	3738
08 Jul	0429	0441	0449	C5.3			
08 Jul	0527	0535	0538	C5.5			
08 Jul	0538	0542	0546	C5.7			
08 Jul	0646	0658	0701		SF	N11E60	3741
08 Jul	0654	0656	0703		SF	S09E40	3738
08 Jul	0752	0759	0810	C4.4			3733
08 Jul	0842	0845	0850	C6.4	SN	S10E38	3738
08 Jul	1006	1009	1012		SF	S11E38	3738
08 Jul	1105	1113	1117	C4.2	SF	S18W23	3740



## Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
08 Jul	1129	1133	1137	C4.2	SF	S18W23	3740
08 Jul	1132	1132	1149		SF	S11E38	3738
08 Jul	1234	1241	1246	M1.1	SF	S23E78	
08 Jul	1411	1415	1422	C3.9	SF	S10E32	3738
08 Jul	1441	1444	1451	C4.6	SN	S16W26	3740
08 Jul	1458	1506	1514	C4.2			
08 Jul	1614	1615	1622		SF	S10E32	3738
08 Jul	1740	1750	1800	C7.6			
08 Jul	1841	1851	1900	C4.9	SF	S20E04	3736
08 Jul	1934	1941	1945	C3.2	SN	S09E29	3738
08 Jul	2100	2102	2103		SF	S06E29	3738
09 Jul	0245	0250	0256	C3.5			3736
09 Jul	0510	0721	0746		SF	S09E26	3738
09 Jul	0520	0527	0611		SF	S20E06	3736
09 Jul	0544	0558	0605	C5.6	SF	S13E26	3738
09 Jul	0714	0725	0735	C5.1			3738
09 Jul	0814	0822	0831	C6.7	SF	S09E25	3738
09 Jul	0833	0833	0836		SF	S10E28	3738
09 Jul	1209	1216	1225	C2.5			3742
09 Jul	1244	1252	1258	C3.2	SF	S08E22	3738
09 Jul	1309	1309	1315		SF	S10E21	3738
09 Jul	1506	1509	1514		SF	S10E21	3738
09 Jul	1818	1834	1835		SF	S08E16	3738
09 Jul	1845	1845	1857		SF	S08E16	3738
09 Jul	1940	1942	1946		SF	S09E71	3743
09 Jul	2153	2206	2215	C5.0	SF	S06E08	3738
09 Jul	2227	2227	2234		SF	S08E15	3738
10 Jul	0247	0259	0307	C8.2			3738
10 Jul	0530	0557	0637	M1.5	SN	S10E21	3738
10 Jul	0706	0709	0719		SN	S09E12	3738
10 Jul	0729	0738	0742		SF	S09E12	3738
10 Jul	0759	0759	0808		SF	S10E10	3738
10 Jul	0845	0846	0850		SF	S10E10	3738
10 Jul	0902	0920	0926	C9.0			3738
10 Jul	0904	0948	1005	M1.3	SF	S10E10	3738
10 Jul	1007	1007	1024		SF	S10E10	3738
10 Jul	1034	1037	1041		SF	S10E10	3738
10 Jul	1052	1100	1109	C6.0	SF	S10E10	3738



## Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
10 Jul	1144	1204	1217	M1.4	1F	S10E01	3738
10 Jul	1251	1304	1313	M1.1	1F	S10E01	3738
10 Jul	1525	1537	1546	M1.0	SF	S08E03	3738
10 Jul	1557	1557	1643		SF	N05W70	3734
10 Jul	1631	1631	1701		SF	S19W21	3736
10 Jul	1643	1645	1648		SF	S07E00	3738
10 Jul	1736	1743	1749	C3.2			3738
10 Jul	1740	1820	1906	C6.6	SF	S13W02	3738
10 Jul	1811	1815	1819		SF	N04W71	3739
10 Jul	1920	1923	1929		SF	S10W05	3738
10 Jul	1930	2017	2026	C6.8	1N	S11W06	3738
10 Jul	2014	2018	2022	C8.4			3738
10 Jul	2021	2021	2027		SF	N04W72	3734
10 Jul	2135	2139	2214		SF	S08W03	3738
10 Jul	2243	2257	2308		SF	S09W05	3738
11 Jul	0228	0230	0233		SF	S08E09	3738
11 Jul	0403	0417	0437	M1.2			3745
11 Jul	0423	0433	0444		SF	S08E09	3738
11 Jul	B0448	0513	0538		SF	S10W05	3738
11 Jul	0559	0611	0617	C9.7	1N	S13W11	3738
11 Jul	0617	0625	0632	M1.2			3738
11 Jul	0932	0950	1023		1F	S09W07	3738
11 Jul	1132	1137	1142	C2.6	SF	S10W11	3738
11 Jul	1238	1238	1243		SF	S08W14	3738
11 Jul	1418	1419	1438		SF	S25E38	3742
11 Jul	1546	1554	1610	C4.0	1N	S13W16	3738
11 Jul	1653	1700	1717	C2.3			3738
11 Jul	1718	1725	1732	C2.9	SF	S04W08	3738
11 Jul	1752	1815	1818		SF	S10W15	3738
11 Jul	1919	1920	1923		SF	S10W17	3738
11 Jul	2005	2005	2016		SF	S10W17	3738
11 Jul	2229	2229	2233		SF	S11W20	3738
12 Jul	0100	0103	0112		SF	S10W21	3738
12 Jul	0117	0123	0130	C2.5	SF	S10W21	3738
12 Jul	0449	0456	0500		SF	S07E36	3743
12 Jul	1039	1040	1046		SF	S14W25	3738
12 Jul	1210	1213	1220	C4.6	SF	S19W25	3740
12 Jul	1301	1328	1355	C6.5	SF	S08E30	3743



## Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
12 Jul	1318	1320	1342		SF	S12W29	3738
12 Jul	1706	1706	1710		SF	S13W15	3738
12 Jul	1736	1740	1744	C3.6	SF	S11W15	3738
12 Jul	2226	2236	2245	C3.6	SF	S16E31	3745
13 Jul	0255	0318	0336	M1.4			3738
13 Jul	0407	0420	0426	C8.3			3738
13 Jul	0426	0435	0440	C8.0			3738
13 Jul	B0440	U0508	0557		SF	S13W37	3738
13 Jul	0659	0700	0711		SF	S10E21	3743
13 Jul	0812	0813	0815		SF	S13W37	3738
13 Jul	1027	1028	1033		SF	S10E21	3743
13 Jul	1137	1141	1158		SF	S08W41	3738
13 Jul	1159	1207	1209	C3.5			3738
13 Jul	1209	1219	1221	C4.6			3738
13 Jul	1209	1209	1230		SF	S10E18	3743
13 Jul	1221	1235	1344	M5.3	1N	S08W42	3738
13 Jul	1309	1309	1311		SF	S11E81	
13 Jul	1323	1323	1343		1F	S17E23	3745
13 Jul	1323	1323	1344	C5.2	SF	S08W43	3738
13 Jul	1417	1544	1603		SF	S08W42	3738
13 Jul	1424	1427	1429		SF	N15E30	3744
13 Jul	1425	1428	1428		SF	N15E28	3744
13 Jul	1459	1530	1541	M1.8			3747
13 Jul	1500	1505	1542		2F	S16E18	3745
13 Jul	1510	1528	1607		SF	S25E28	3747
13 Jul	1541	1544	1548	M1.9			3747
13 Jul	1617	1715	1718		SF	S07W43	3738
13 Jul	1925	1930	1934	M1.0	SF	S05W45	3738
13 Jul	2016	2016	2019		SF	S08W47	3738
13 Jul	2027	2030	2033		SF	S06W46	3738
13 Jul	2038	2042	2056		SF	S08W40	3738
13 Jul	2244	2301	2312	M5.0			3738
14 Jul	0105	0116	0131	M1.7			3738
14 Jul	0153	0203	0215	C7.8			3738
14 Jul	0223	0234	0248	X1.2			3738
14 Jul	0405	0413	0418	M3.0	SF	S04W49	3738
14 Jul	B0442	U0453	0512		SF	S07W43	3738
14 Jul	0513	0513	0517		SF	S08E79	3751

## Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
14 Jul	0520	0520	0539		SF	S10E06	3743
14 Jul	0556	0557	0603		SF	S19E10	3745
14 Jul	0634	0641	0702		SF	S09W47	3738
14 Jul	0637	0638	0652		SF	S10E06	3743
14 Jul	0652	0653	0659		SF	S07E78	3751
14 Jul	0810	0827	0837	C7.1	SF	S09W48	3738
14 Jul	0903	0904	0906		SF	S09W48	3738
14 Jul	0912	0913	0917		SF	S08W48	3738
14 Jul	0922	0923	0929		SF	S18E11	3742
14 Jul	0930	0933	0939		SF	S08W48	3738
14 Jul	1016	1020	1024	M1.0	SF	S13W45	3738
14 Jul	1201	1207	1213	C7.0	SF	S08E75	3751
14 Jul	1240	1244	1253	C5.6	SF	S14W47	3738
14 Jul	1312	1316	1318		SF	S14W47	3738
14 Jul	1321	1330	1340	C5.1	SF	S14W47	3738
14 Jul	1344	1345	1348		SF	S14W48	3738
14 Jul	1405	1405	1410		SF	S08E71	3751
14 Jul	1411	1414	1416		SF	S08E71	3751
14 Jul	1437	1439	1444	C4.4			3738
14 Jul	1527	1527	1532		SF	S09W49	3738
14 Jul	1537	1538	1556		SF	S07W51	3738
14 Jul	1555	1555	1559		SF	S08E71	3751
14 Jul	1602	1605	1607		SF	S11W47	3738
14 Jul	1609	1615	1619	C5.0	1N	S09W49	3738
14 Jul	1619	1628	1633	C5.5			3738
14 Jul	1643	1654	1659		SF	S10E68	3751
14 Jul	1711	1714	1719		SF	N15E16	3744
14 Jul	1723	1730	1738		SF	S12W49	3738
14 Jul	1734	1736	1741		SF	S09E71	3751
14 Jul	1739	1741	1742		SF	S11W46	3738
14 Jul	1749	1813	1820		SF	S13W50	3738
14 Jul	1828	1829	1832		SF	S10E04	3745
14 Jul	1932	1932	1937	C6.8	1F	S07W55	3738
14 Jul	2006	2020	2032	C8.1	SF	S07W55	3738
14 Jul	2050	2057	2103	M1.0			3738
14 Jul	2120	2126	2135	C7.1			3751
14 Jul	2154	2158	2202	C8.2	1N	N14E13	3744
14 Jul	2211	2240	2254		SF	S07W02	3743



## Region Summary

Date	Lat	CMD	Location		Sunspot Characteristics					Flares							
			Helio	Lon	Area $10^{-6}$	Extent hemi.	Spot Class	Spot Count	Mag Class	X-ray			Optical				
										C	M	X	S	1	2	3	4
<b>Region 3729</b>																	
26 Jun	S03E65		333		60		5	Dso	4	B							
27 Jun	S03E52		333		110		10	Dai	7	B	2				1		
28 Jun	S04E42		330		240		14	Eao	8	B					1		
29 Jun	S05E29		330		220		14	Eao	10	B							
30 Jun	S04E14		332		200		14	Eai	12	B	2						
01 Jul	S04W00		332		180		15	Eai	24	BG	3				5		
02 Jul	S05W12		331		200		15	Eai	34	BGD	7				1		
03 Jul	S05W26		332		240		17	Fai	35	BG	3	1		4	1		
04 Jul	S05W40		333		150		16	Fai	25	BG	1				2		
05 Jul	S04W52		331		100		14	Eao	10	BG	2				4		
06 Jul	S05W72		338		80		4	Hax	2	A	1				2		
07 Jul	S05W84		337		40		4	Cso	3	B	1						
											22	1	0	20	1	0	0

Crossed West Limb.

Absolute heliographic longitude: 332

## Region 3731

28 Jun	S16E49		323		10		1	Axx	1	A						
29 Jun	S16E35		324		10		1	Axx	1	A						
30 Jun	S16E21		325		10		1	Axx	1	A	1					
01 Jul	S15E07		325		10		1	Axx	1	A						
02 Jul	S15W07		326		10		1	Axx	1	A						
03 Jul	S16W20		326		10		3	Axx	4	A						
04 Jul	S16W34		327		plage											
05 Jul	S16W48		327		plage											
06 Jul	S16W62		328		plage											
07 Jul	S16W76		329		plage											
08 Jul	S16W90		316		plage											
											1	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 325

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

Date	Lat	CMD	Location		Sunspot Characteristics					Flares							
			Helio	Lon	Area $10^{-6}$ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
										C	M	X	S	1	2	3	4
<b>Region 3733</b>																	
29 Jun	N05E28		331		30		5	Cao	5	B							
30 Jun	N05E14		332		40		7	Dao	4	B						3	
01 Jul	N05W00		332		40		7	Dao	6	B							
02 Jul	N04W14		333		20		8	Cri	4	B							
03 Jul	N05W29		335		50		6	Dsi	8	B							
04 Jul	N05W41		334		230		8	Dai	8	B	2					2	
05 Jul	N03W55		334		460		9	Dkc	8	B							
06 Jul	N05W68		334		300		9	Dki	10	B						2	
07 Jul	N05W81		334		150		8	Dso	3	B							
											2	0	0	7	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 332

## **Region 3734**

29 Jun	N08E70		289		60		7	Cao	3	B	6						
30 Jun	N08E59		287		60		9	Dao	4	B	1						
01 Jul	N09E42		290		80		14	Eai	7	B							
02 Jul	N08E31		288		80		15	Cai	9	B							
03 Jul	N09E18		288		60		15	Cao	7	B						1	
04 Jul	N09W04		297		20		2	Hrx	2	A							
05 Jul	N09W18		297		20		2	Hrx	2	A							
06 Jul	N09W31		297		10		1	Axx	1	A							
07 Jul	N09W45		298		10		1	Axx	1	A							
08 Jul	N09W59		285		0			Axx		A							
09 Jul	N08W73		299	plage												2	
10 Jul	N08W87		300	plage													
											7	0	0	4	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 297



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

Date	Lat	CMD	Location		Sunspot Characteristics					Flares						
			Helio	Lon	Area $10^{-6}$ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical			
										C	M	X	S	1	2	3
<b>Region 3735</b>																
29 Jun	N17E75		284		20		2	Hsx	1	A						
30 Jun	N17E62		284		60		2	Hsx	1	A						
01 Jul	N17E47		285		50		2	Hsx	1	A						
02 Jul	N17E34		285		40		1	Hsx	1	A						
03 Jul	N17E20		286		40		1	Hsx	1	A						
04 Jul	N17E09		284		30		1	Hsx	1	A						
05 Jul	N16W04		283		30		1	Hax	1	A						
06 Jul	N17W17		283		20		1	Hrx	1	A						
07 Jul	N17W31		284		10		1	Axx	1	A						
08 Jul	N17W46		286		plage						0	0	0	0	0	0
09 Jul	N17W61		287		plage											
10 Jul	N17W75		288		plage											
11 Jul	N17W89		289		plage											

Crossed West Limb.

Absolute heliographic longitude: 283

<b>Region 3736</b>										0    0    0    3    0    0    0						
03 Jul	S18E65		240		60		7	Cso	2	B	2					
04 Jul	S18E54		239		90		8	Dso	2	B						
05 Jul	S19E42		237		120		10	Dso	3	B						
06 Jul	S19E27		239		120		10	Cso	5	B						
07 Jul	S19E16		237		120		8	Cso	2	B						
08 Jul	S19W00		239		90		7	Cso	8	B	1					
09 Jul	S19W14		240		40		3	Hsx	3	A	1					
10 Jul	S19W28		241		40		3	Hsx	3	A						
11 Jul	S20W41		241		50		4	Hsx	2	A						
12 Jul	S21W54		241		20		1	Hax	1	A						
13 Jul	S20W69		242		10		1	Axx	1	A						
14 Jul	S20W83		243		10		1	Axx	1	A						

Still on Disk.

Absolute heliographic longitude: 239

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

Date	Lat	CMD	Location		Sunspot Characteristics					Flares							
			Helio	Lon	Area $10^6$ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical				
										C	M	X	S	1	2	3	4
<b>Region 3738</b>																	
05 Jul	S08E70	209	80	7	Dao	3	B										
06 Jul	S09E58	208	290	13	Ekc	15	BG	3	1					10			
07 Jul	S09E44	209	280	13	Ekc	15	BG	7						18			
08 Jul	S08E30	210	330	14	Ekc	32	BG	5						9			
09 Jul	S10E15	211	320	14	Eki	50	BG	5						11			
10 Jul	S10E01	212	870	17	Fhc	83	BG	7	5					15	3		
11 Jul	S08W13	213	940	17	Fkc	67	BG	5	1					10	3		
12 Jul	S09W26	213	1100	17	Fki	50	BG	2						6			
13 Jul	S09W40	213	1100	19	Fkc	52	BGD	5	4					10	1		
14 Jul	S09W53	213	1140	19	Fkc	40	BGD	9	4	1	19	1					
								48	15	1	108	8	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 212

### **Region 3739**

06 Jul	N03W17	283	10	2	Bxo	3	B									
07 Jul	N04W26	279	10	1	Axx	1	A									
08 Jul	N04W41	281	plage													
09 Jul	N04W56	282	10	1	Axx	1	A									
10 Jul	N04W71	284	10	1	Bxo	1	B							1		
11 Jul	N04W85	285	plage											0	0	0
														1	0	0
														0	0	0

Crossed West Limb.

Absolute heliographic longitude: 283

### **Region 3740**

06 Jul	S20W03	269	10	2	Bxo	4	B									
07 Jul	S18W18	271	20	3	Cro	2	B									
08 Jul	S17W32	272	10	2	Bxo	3	B	3							3	
09 Jul	S18W47	273	10	2	Bxo	2	B									
10 Jul	S18W61	274	10	2	Axx	2	A									
11 Jul	S18W75	275	10	2	Bxo	2	B									
12 Jul	S18W89	276	plage					1						1		
								4	0	0	4	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 269



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

Date	Lat	CMD	Location		Sunspot Characteristics				Flares								
			Helio	Lon	Area $10^{-6}$ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray		Optical	S	1	2	3	4
<b>Region 3741</b>																	
07 Jul	N09E63		190		10		1	Axx	1	A							
08 Jul	N09E48		192		10		1	Hrx	1	A		1					
09 Jul	N09E33		193		10		1	Axx	1	A							
10 Jul	N09E19		194		10		1	Axx	1	A							
11 Jul	N09E05		195		plage												
12 Jul	N09W09		196		plage												
13 Jul	N09W23		196		plage												
14 Jul	N09W37		197		plage												
											0	0	0	1	0	0	0

Still on Disk.

Absolute heliographic longitude: 195

### **Region 3742**

08 Jul	S23E69		170	plage	1			1									
09 Jul	S24E56		172	60	17	Cso	2		B		1						
10 Jul	S24E42		171	80	15	Eso	2		B								
11 Jul	S23E29		171	10	2	Axx	1		A								1
12 Jul	S23E16		171	10	3	Bxo	4		B								
13 Jul	S23E02		171	10	1	Axx	1		A								
14 Jul	S23W12		171	10	1	Axx	2		A								1
											1	0	0	2	0	0	0

Still on Disk.

Absolute heliographic longitude: 171

### **Region 3743**

09 Jul	S09E62		164	30	1	Cao	3		B								1
10 Jul	S09E48		165	60	6	Dao	3		B								
11 Jul	S09E34		166	140	8	Dai	13		BG								
12 Jul	S09E24		163	200	9	Dsi	12		B	1							2
13 Jul	S08E11		162	220	10	Dai	23		B								3
14 Jul	S08W05		164	160	9	Dai	20		B								3
											1	0	0	9	0	0	0

Still on Disk.

Absolute heliographic longitude: 164

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

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

### ***Region 3744***

09 Jul	N16E76	150	90	2	Hsx	1	A									
10 Jul	N15E65	148	170	4	Cso	3	B									
11 Jul	N16E51	149	160	10	Dao	6	B									
12 Jul	N16E43	144	180	6	Dso	7	B									
13 Jul	N16E25	147	160	8	Dso	8	B								2	
14 Jul	N15E13	146	150	6	Dso	8	B		1				1	1		
									1	0	0	3	1	0	0	0

Still on Disk.

Absolute heliographic longitude: 146

### ***Region 3745***

10 Jul	S17E58	155	20	5	Cro	2	B									
11 Jul	S17E44	156	20	9	Dro	3	B				1					
12 Jul	S17E31	156	20	9	Bxo	2	B		1			1				
13 Jul	S15E20	153	20	7	Dro	3	B						1	1		
14 Jul	S15E03	156	20	8	Dro	5	B			1	1	0	3	1	1	0
																0

Still on Disk.

Absolute heliographic longitude: 156

### ***Region 3746***

11 Jul	N23W23	223	10	2	Bxo	2	B									
12 Jul	N23W37	224	plage													
13 Jul	N23W51	224	plage													
14 Jul	N23W65	225	plage													
									0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 223

### ***Region 3747***

11 Jul	S24E44	156	100	4	Hsx	2	A									
12 Jul	S25E32	155	180	3	Hsx	2	A									
13 Jul	S24E18	155	180	4	Cso	2	B			2		1				
14 Jul	S25E04	155	140	4	Hsx	1	A				0	2	0	1	0	0
																0

Still on Disk.

Absolute heliographic longitude: 155



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

Date	Location		Sunspot Characteristics					Flares								
	Lat	CMD	Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
			Lon	$10^6$ hemi.	(helio)	Class	Count		C	M	X	S	1	2	3	4
<b>Region 3748</b>																
12 Jul	N15E57		130	30	7	Bxo	4	B				0	0	0	0	0
13 Jul	N15E43		130	10	5	Bxo	4	B				0	0	0	0	0
14 Jul	N14E27		133	10	1	Axx	2	A				0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 133

### ***Region 3749***

13 Jul	S32E66		106	50	4	Cso	2	B				0	0	0	0	0
14 Jul	S32E52		108	50	5	Cso	3	B				0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 108

### ***Region 3750***

13 Jul	S20E65		108	110	7	Cso	7	B				0	0	0	0	0
14 Jul	S20E52		107	100	8	Cso	6	B				0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 107

### ***Region 3751***

13 Jul	S07E75		98	90	2	Hsx	1	A				2	0	0	8	0
14 Jul	S07E66		95	230	11	Eai	7	B				2	0	0	8	0

Still on Disk.

Absolute heliographic longitude: 95

### ***Region 3752***

14 Jul	N22E67		93	30	2	Hax	2	A				0	0	0	0	0
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Still on Disk.

Absolute heliographic longitude: 93



## ***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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