

**Space Weather Highlights**  
**14 July - 20 July 2025**

**SWPC PRF 2603**  
**21 July 2025**

Solar activity was at low levels. The largest flare was a C7.6 from Region 4136 (N20, L=17, class/area=Cao/210 on 20 Jul) at 20/0741 UTC. C-class activity was also observed from several other regiond during the highlight period. No Earth-directed CME activity was observed.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 14-20 Jul in response to persistent positive polarity CH HSS influence.

Geomagnetic field activity reached G1 (Minor) storm levels on 14, 15, and 17 Jul due to positive polarity CH HSS influence. Solar wind speeds were elevated to as high as 700 km/s on 15 and 17 Jul. The remaining days were at quiet to active levels despite enhanced solar wind parameters.

**Space Weather Outlook**  
**21 July - 16 August 2025**

Solar activity is expected to be at mostly low levels with a chance for M-class (R1-R2, Minor to Moderate) flares for the outlook period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels on 21-22 Jul, 24-30 Jul, 5-6 Aug, and 10-16 Aug all due to recurrent CH HSS influences. Low to moderate levels are expected on the remaining days.

Geomagnetic field activity is expected to be at active to G1 (Minor) storm levels on 23 Jul, 1-4 Aug and, 7-14 Aug due to recurrent CH HSS effects. Quiet to unsettled levels are expected on the remaining days of the outlook peiroad.



### *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
14 July	128	139	545	C1.1	14	0	0	5	0	0	0	0
15 July	139	146	585	C1.0	2	0	0	7	0	0	0	0
16 July	152	182	900	B9.0	7	0	0	13	1	0	0	0
17 July	156	178	1180	C1.0	3	0	0	14	0	0	0	0
18 July	156	167	1110	C1.0	7	0	0	6	0	0	0	0
19 July	153	139	1210	C1.3	3	0	0	7	0	0	0	0
20 July	150	139	1070	C1.2	9	0	0	7	1	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	
14 July	1.8e+05	1.7e+04	4.2e+07	
15 July	1.3e+06	1.7e+04	6.3e+07	
16 July	1.7e+06	1.8e+04	1.5e+08	
17 July	9.2e+05	1.9e+04	2.2e+08	
18 July	8.4e+05	2.0e+04	4.1e+08	
19 July	4.4e+05	1.8e+04	4.5e+08	
20 July	8.0e+05	1.8e+04	7.6e+08	

### *Daily Geomagnetic Data*

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
14 July	16	2-2-3-0-0-3-4-4	16	2-3-3-0-0-4-3-3	16	2-3-3-2-3-3-5-4
15 July	17	3-4-4-4-3-3-1-2	37	4-5-6-5-5-4-2-2	23	4-4-5-5-3-2-2-2
16 July	14	2-3-3-4-2-1-2-4	24	4-4-4-6-2-1-2-3	17	3-3-3-4-2-1-3-5
17 July	14	4-3-3-3-0-0-0-0	42	3-4-5-6-6-5-4-2	19	4-4-4-4-4-4-3-2
18 July	9	2-1-2-2-4-2-1-2	18	2-2-2-5-5-3-2-2	11	2-1-2-3-4-3-2-2
19 July	8	1-1-1-3-3-2-2-2	11	1-3-2-4-3-3-1-1	7	1-2-2-2-2-2-2-2
20 July	7	1-1-1-2-3-2-2-2	9	1-1-1-3-4-3-1-1	5	1-1-1-2-2-2-1-1



### *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>
14 Jul 1135	ALERT: Type II Radio Emission	14/1045
14 Jul 1552	ALERT: Electron 2MeV Integral Flux $\geq 1000$ pfu	14/1550
14 Jul 1859	WARNING: Geomagnetic K = 4	14/1858 - 15/0300
14 Jul 2052	WARNING: Geomagnetic K = 5	14/2051 - 15/0300
14 Jul 2054	ALERT: Geomagnetic K = 4	
14 Jul 2109	ALERT: Geomagnetic K = 5	
15 Jul 0224	EXTENDED WARNING: Geomagnetic K = 5	14/2051 - 15/1200
15 Jul 0224	EXTENDED WARNING: Geomagnetic K = 4	14/1858 - 15/1200
15 Jul 0901	ALERT: Geomagnetic K = 5	
15 Jul 1056	ALERT: Geomagnetic K = 5	
15 Jul 1147	EXTENDED WARNING: Geomagnetic K = 4	14/1858 - 15/2100
15 Jul 1147	EXTENDED WARNING: Geomagnetic K = 5	14/2051 - 15/1800
15 Jul 1210	ALERT: Type II Radio Emission	15/1052
15 Jul 1212	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq 1000$ pfu	14/1550
16 Jul 0241	WARNING: Geomagnetic K = 4	16/0240 - 1200
16 Jul 0517	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq 1000$ pfu	14/1550
16 Jul 1146	ALERT: Geomagnetic K = 4	
16 Jul 1147	EXTENDED WARNING: Geomagnetic K = 4	16/0240 - 2100
16 Jul 2141	WARNING: Geomagnetic K = 4	16/2140 - 17/0600
16 Jul 2243	ALERT: Geomagnetic K = 4	
16 Jul 2254	WARNING: Geomagnetic K = 5	16/2254 - 17/0600
16 Jul 2307	ALERT: Geomagnetic K = 5	
16 Jul 2334	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq 1000$ pfu	14/1550
17 Jul 0841	WARNING: Geomagnetic K = 4	17/0840 - 2100
17 Jul 0851	ALERT: Geomagnetic K = 4	
17 Jul 0852	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq 1000$ pfu	14/1550
17 Jul 2055	EXTENDED WARNING: Geomagnetic K = 4	17/0840 - 18/1500

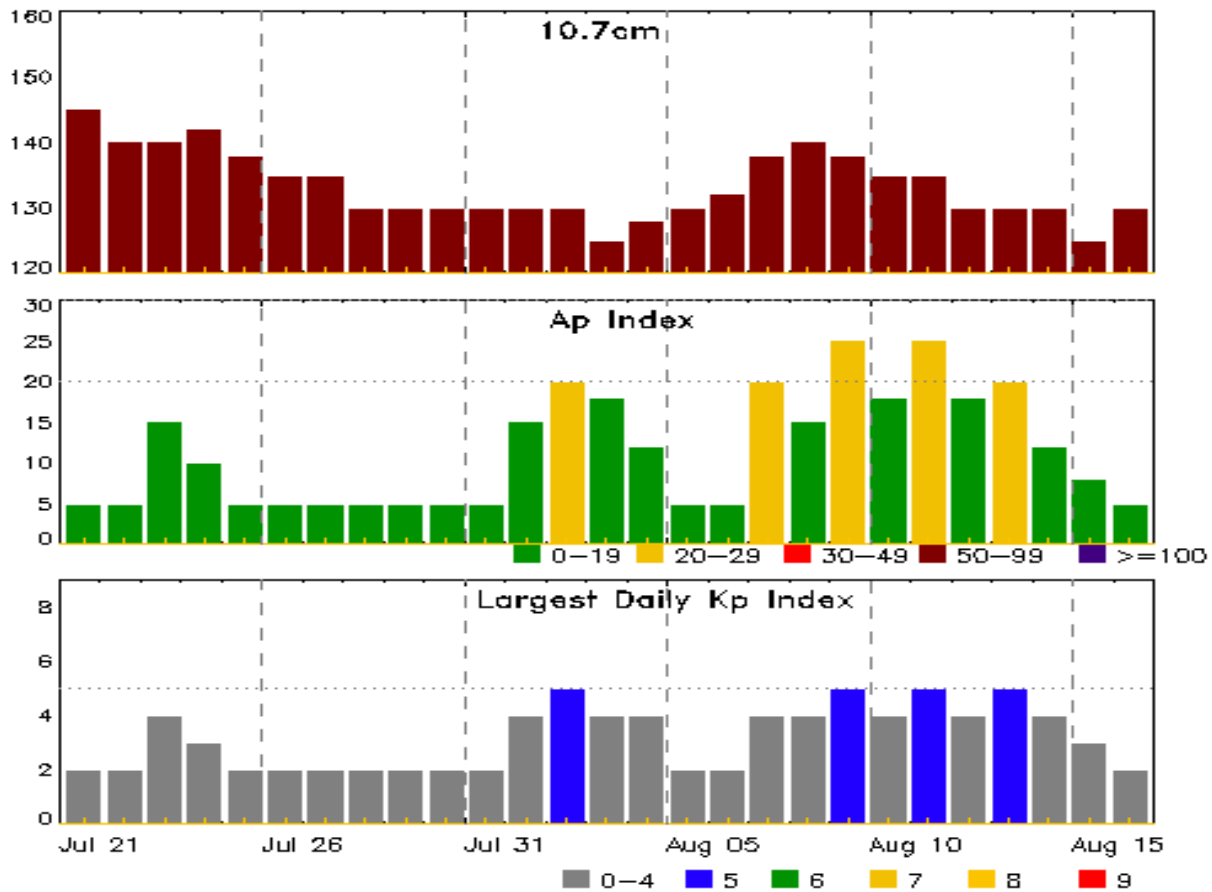


### *Alerts and Warnings Issued*

<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
18 Jul 0500	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	14/1550
18 Jul 1437	EXTENDED WARNING: Geomagnetic K = 4	17/0840 - 18/2359
19 Jul 0500	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	14/1550
20 Jul 0605	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	14/1550



## 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
21 Jul	145	5	2	04 Aug	128	12	4
22	140	5	2	05	130	5	2
23	140	15	4	06	132	5	2
24	142	10	3	07	138	20	4
25	138	5	2	08	140	15	4
26	135	5	2	09	138	25	5
27	135	5	2	10	135	18	4
28	130	5	2	11	135	25	5
29	130	5	2	12	130	18	4
30	130	5	2	13	130	20	5
31	130	5	2	14	130	12	4
01 Aug	130	15	4	15	125	8	3
02	130	20	5	16	130	5	2
03	125	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		II	IV
									245	2695		

**No Events Observed**

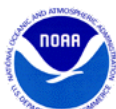
## ***Flare List***

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
14 Jul	0038	0048	0105	C2.1			4141
14 Jul	0247	0254	0301	C2.1			4142
14 Jul	0307	0323	0331	C2.5			4141
14 Jul	0456	0501	0503	C4.0	SF	N01E61	4142
14 Jul	0510	0510	0514		SF	N01E59	4142
14 Jul	0536	0541	0556	C2.3			4141
14 Jul	0748	0758	0803	C1.8	SF	N01E60	4142
14 Jul	0848	0855	0900	C1.5			4141
14 Jul	0900	0907	0915	C1.5			4141
14 Jul	0928	0938	0942	C2.9			4141
14 Jul	1246	1257	1307	C2.1			4141
14 Jul	1307	1320	1330	C2.1			4141
14 Jul	1340	1341	1345		SF	N22W09	4139
14 Jul	1404	1429	1443	C3.1			4137
14 Jul	1443	1457	1502	C3.3			4137
14 Jul	1649	1706	1727	C4.5			4141
14 Jul	1757	1757	1803		SF	S16E36	4140
15 Jul	0508	0512	0518		SF	N01E48	4142
15 Jul	0600	0611	0621	C1.6			4142
15 Jul	0716	0716	0722		SF	N01E47	4142
15 Jul	0930	0932	0932		SF	N02E45	4142
15 Jul	1006	1008	1018		SF	N02E44	4142
15 Jul	1109	1114	1117		SF	N02E44	4142
15 Jul	1256	1256	1302		SF	N01E43	4142
15 Jul	1454	1458	1507		SF	N02E42	4142
15 Jul	1657	1708	1719	C2.4			4142
16 Jul	0036	0055	0105	C2.9	1F	N05E35	4142
16 Jul	0351	0358	0400	C5.0	SF	N25E03	4143
16 Jul	B0454	U0510	0531		SF	N01E35	4142
16 Jul	0544	0544	0547		SF	N02E35	4142
16 Jul	0606	0611	0621	C1.4	SF	N23W02	4143



## *Flare List*

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
16 Jul	0711	0720	0724	C1.3	SF	N23W03	4143
16 Jul	1308	1310	1312		SF	N26W03	4143
16 Jul	1314	1314	1316		SF	N02E26	4142
16 Jul	1422	1423	1426		SF	N22W37	4139
16 Jul	1554	1555	1602		SF	N02E25	4142
16 Jul	1716	U1719	A1728	C2.5	SF	N02E26	4142
16 Jul	1856	1904	1909		SF	N02E25	4142
16 Jul	1914	1914	1919		SF	N02E25	4142
16 Jul	2022	2024	2027		SF	N23W12	4143
16 Jul	2104	2111	2117				4145
16 Jul	2117	2127	2143	C2.3			4142
17 Jul	0549	0550	0551	C5.9	SF	N25W14	4143
17 Jul	0558	0600	0617		SF	N25W15	4143
17 Jul	0642	0643	0656		SF	N02E18	4142
17 Jul	0714	0714	0717		SF	N02E17	4142
17 Jul	0819	0819	0826		SF	N25W18	4143
17 Jul	0834	0834	0841		SF	N03E16	4142
17 Jul	0917	0928	0936		SF	N19W29	4136
17 Jul	B1100	U1103	1114		SF	N02E16	4142
17 Jul	1211	1214	1218		SF	N20W31	4136
17 Jul	1233	1236	1242		SF	N20W31	4136
17 Jul	1309	1313	1316	C2.8	SF	N02E15	4142
17 Jul	1438	1439	1443		SF	N20W33	4136
17 Jul	1510	1512	1517		SF	N20W33	4136
17 Jul	1949	1953	1957	C2.4	SN	N22W34	4136
18 Jul	0335	0342	0348	C2.2			4136
18 Jul	0700	0714	0723	C2.2			4136
18 Jul	0805	0813	0817	C3.5	SF	N22W42	4136
18 Jul	0856	0911	0928	C2.2			4136
18 Jul	1242	1251	1258	C2.1	SF	N24W40	4136
18 Jul	1254	1256	1259		SF	N24W41	4136
18 Jul	1258	1309	1315	C2.4			4136
18 Jul	1301	1314	1336		SF	N24W41	4136
18 Jul	1311	1320	1324		SF	N23W42	4136
18 Jul	1625	1639	1659	C2.1			4136
18 Jul	2035	2037	2046		SF	N24W45	4136
19 Jul	0449	0450	0454		SF	N18E88	
19 Jul	0654	0657	0718		SF	N24W52	4136



## *Flare List*

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
19 Jul	0856	0907	0913	C3.3			4135
19 Jul	2036	2036	2039		SF	N24W47	4143
19 Jul	2112	2113	2115		SF	N24W56	4143
19 Jul	2215	2220	2223	C4.1	SN	N24W47	4143
19 Jul	2238	2241	2244		SF	N24W47	4143
19 Jul	2253	2311	2331	C4.4	SF	N26W58	4143
20 Jul	0030	0035	0039	C3.2			4149
20 Jul	0531	0537	0549	C1.6			4136
20 Jul	0708	0721	0729	C2.8			4136
20 Jul	0729	0741	0752	C7.6			4136
20 Jul	0738	0742	0754		SF	N24W63	4136
20 Jul	0941	0951	1004	C1.9	SF	N20E66	4149
20 Jul	1004	1008	1030		SF	N20E66	4149
20 Jul	1032	1032	1034		SF	N20E66	4149
20 Jul	1143	1157	1204	C2.9	SF	N27W66	4136
20 Jul	1204	1213	1225	C2.8			4136
20 Jul	1246	1246	1248		SF	N21E63	4149
20 Jul	1447	1454	1500	C2.5	SF	N25W66	4136
20 Jul	1528	1537	1552	C6.5	1F	N22W68	4136





## Region Summary

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 4135															
07 Jul	S09E69	45	50	6	Dai	6	B								
08 Jul	S08E56	46	90	5	Dao	3	B								
09 Jul	S08E43	46	70	5	Dao	5	BG	1				1			
10 Jul	S09E29	47	60	6	Cso	4	B								
11 Jul	S08E15	47	60	2	Hsx	2	A								
12 Jul	S08E01	48	50	1	Hsx	1	A								
13 Jul	S09W12	48	60	2	Hsx	1	A								
14 Jul	S09W24	47	60	2	Hsx	1	A								
15 Jul	S09W39	48	40	2	Hsx	1	A								
16 Jul	S09W52	48	40	2	Hsx	1	A								
17 Jul	S08W65	48	40	2	Hsx	1	A								
18 Jul	S08W78	48	20	2	Axx	2	A								
								1	0	0	1	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 48

<b>Region 4136</b>															
09 Jul	N19E64	25	150	7	Dai	7	BG	1	1						
10 Jul	N19E53	23	180	10	Dai	9	BG	1			4				
11 Jul	N19E40	22	220	9	Dai	12	BGD				1				
12 Jul	N19E27	22	200	9	Dao	8	BD	1				1			
13 Jul	N19E13	23	190	9	Dao	4	B								
14 Jul	N19W00	23	150	12	Eao	7	BG								
15 Jul	N19W15	24	190	12	Eao	8	BG								
16 Jul	N19W28	24	250	12	Cko	7	BG								
17 Jul	N21W37	20	280	5	Dkc	10	BD	2			6				
18 Jul	N21W50	20	280	6	Dkc	10	BG	7			6				
19 Jul	N21W62	18	260	6	Dkc	5	BG				1				
20 Jul	N20W74	17	210	4	Cao	3	B	7			3	1			
								26	2	0	21	2	0	0	0

Still on Disk.

Absolute heliographic longitude: 23



### *Region Summary - continued*

	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 4137															
09 Jul	N19W22	111	30	3	Cro	6	B								
10 Jul	N18W34	110	80	4	Dao	7	B	1							
11 Jul	N18W47	109	80	8	Dai	8	B								
12 Jul	N18W61	110	60	8	Cso	5	B								
13 Jul	N19W74	110	40	7	Cso	4	B				1				
14 Jul	N19W89	112	30	4	Cso	3	B	2							
								3	0	0	1	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 111

<b>Region 4138</b>															
11 Jul	N28W13	74	80	7	Dai	10	B	2			11	1			
12 Jul	N28W26	75	200	9	Dai	8	B				3				
13 Jul	N29W39	75	200	10	Dao	8	B								
14 Jul	N28W51	74	75	13	Eai	7	BG								
15 Jul	N29W66	75	75	15	Eso	6	B								
16 Jul	N29W79	75	50	16	Cso	6	B								
								2	0	0	14	1	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 74

<b>Region 4139</b>															
11 Jul	N22E22	40	20	4	Cro	3	B	2			1				
12 Jul	N22E10	39	60	6	Dai	5	B	1			1				
13 Jul	N22W04	40	100	7	Dai	6	B								
14 Jul	N21W15	38	70	8	Dao	13	BG				1				
15 Jul	N22W30	39	100	8	Dai	13	BD								
16 Jul	N22W42	38	250	9	Dko	11	BG				1				
17 Jul	N22W55	38	260	8	Dko	12	BG								
18 Jul	N22W68	38	250	10	Dko	5	BG								
19 Jul	N22W80	36	220	9	Dso	4	B								
20 Jul	N21W93	36	100	5	Dso	2	B								
								3	0	0	4	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 40



### *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 4140*

10 Jul	S15E87	349	plage					5							
11 Jul	S15E73	349	30	4	Cao	3	B	5			3				
12 Jul	S15E61	348	130	10	Dao	6	B	9	3		6	2			
13 Jul	S15E46	350	90	8	Cao	6	B	12			2				
14 Jul	S15E32	350	90	9	Dai	8	B				1				
15 Jul	S15E18	351	70	8	Cao	8	B								
16 Jul	S15E04	352	30	5	Cao	5	B								
17 Jul	S17W06	349	20	2	Bxi	4	B								
18 Jul	S16W19	349	10	1	Axx	1	A								
19 Jul	S14W36	352	plage												
20 Jul	S12W48	351	10	1	Axx	1	A								
								31	3	0	12	2	0	0	0

Still on Disk.

Absolute heliographic longitude: 352

#### *Region 4141*

13 Jul	S13W76	112	30	3	Cao	3	B	1							
14 Jul	S13W90	113	20	3	Cro	3	B	9							
								10	0	0	0	0	0	0	0

Crossed West Limb.

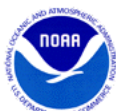
Absolute heliographic longitude: 112

#### *Region 4142*

13 Jul	N02E65	333	plage					1							
14 Jul	N02E50	333	40	5	Cso	4	B	3			3				
15 Jul	N01E35	334	40	7	Dao	10	BG	2			7				
16 Jul	N01E21	335	100	9	Dai	18	BG	3			7	1			
17 Jul	N01E08	335	180	10	Dai	15	BG	1			5				
18 Jul	N01W05	335	200	10	Dai	13	B								
19 Jul	N03W20	336	180	10	Dai	18	B								
20 Jul	N03W33	336	80	10	Dao	8	B								
								10	0	0	22	1	0	0	0

Still on Disk.

Absolute heliographic longitude: 335



### *Region Summary - continued*

	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 4143															
14 Jul	N09E11	11	10	2	Bxo	3	B								
15 Jul	N23E01	8	30	5	Cro	6	B								
16 Jul	N23W12	8	90	7	Dai	15	BG	3			5				
17 Jul	N25W25	8	260	9	Dai	13	BG				3				
18 Jul	N25W38	8	260	10	Dki	12	B								
19 Jul	N25W51	7	270	10	Dki	10	BG	2			5				
20 Jul	N25W64	7	280	10	Dki	12	BG								
								5	0	0	13	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 8

<b>Region 4144</b>															
15 Jul	S15E62	307	30	1	Hsx	1	A								
16 Jul	S15E48	308	30	1	Hsx	1	A								
17 Jul	S15E35	308	40	1	Hsx	1	A								
18 Jul	S15E22	308	30	1	Hsx	1	A								
19 Jul	S15E08	308	20	1	Hrx	1	A								
20 Jul	S15W05	308	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 308

<b>Region 4145</b>															
15 Jul	S24E19	350	10	2	Bxo	3	B								
16 Jul	S26E07	349	30	4	Cro	5	B	1							
17 Jul	S23W06	349	30	5	Cro	6	B								
18 Jul	S24W19	349	10	4	Bxo	5	B								
19 Jul	S24W33	349	10	5	Bxo	5	B								
20 Jul	S24W47	350	plage												
								1	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 349

### *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 4146*

16 Jul	N18W34	29	10	1	Hrx	1	A								
17 Jul	N19W46	29	20	1	Hsx	1	A								
18 Jul	N20W58	28	10	1	Axx	2	A								
19 Jul	N20W72	28	plage												
20 Jul	N20W86	29	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 29

#### *Region 4147*

16 Jul	N06E52	303	20	1	Cao	2	B								
17 Jul	N06E41	302	10	1	Axx	1	A								
18 Jul	N06E28	302	10	1	Axx	1	A								
19 Jul	N06E13	303	plage												
20 Jul	N06W02	305	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 305

#### *Region 4148*

17 Jul	S07W16	359	40	5	Cao	4	B								
18 Jul	S08W28	358	30	5	Cao	5	B								
19 Jul	S08W45	1	20	1	Hrx	1	A								
20 Jul	S07W58	1	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 359

#### *Region 4149*

19 Jul	N17E70	246	150	9	Dso	3	B								
20 Jul	N17E57	246	220	8	Dao	4	B	2			4				
								2	0	0	4	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 246



### ***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

#### ***Region 4150***

19 Jul	S15E65	251	80	6	Cao	2	B								
20 Jul	S15E56	247	130	7	Cao	4	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 247

#### ***Region 4151***

20 Jul	N10W21	324	20	3	Cro	3	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 324



## ***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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