

## **Space Weather Highlights**

**26 May - 01 June 2025**

**SWPC PRF 2596**  
**02 June 2025**

Solar activity ranged from low to high levels. Regions 4098 (S04, L=021, class/area Dai/180 on 26 May), 4100 (N08, L=244, class/area Eki/440 on 30 May) and 4104 (N06, L=216, class/area Dso/080 on 30 May) all produced M-class flare activity this period. A majority of the activity originated from Region 4100 to include the largest event of the period, a long duration M8.1 flare observed at 31/0005 UTC. Associated with this event was a 1,938 km/s Type II sweep, a Type IV sweep, a 1,000 sfu Tenflare and a Castelli-U radio signature. Wide-spread coronal dimming in EUV imagery was followed by a full-halo CME signature, first identified in GOES-19 CCOR-1 imagery at 31/0030 UTC. Model and analysis of this event suggested the CME's estimated time of arrival at Earth to be early to midday on 01 Jun.

A 10 MeV proton event occurred during the period associated with the CME event. 10 MeV protons first exceed the 10 pfu threshold at 31/1710 UTC, peaked at 666 pfu at 01/0915 UTC and was still in progress as of this writing.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 26, 29-31 May and 01 Jun with a maximum flux of 9,160 pfu reached at 31/1620 UTC. Normal to moderate levels occurred on 27-28 May.

Geomagnetic field activity was at quiet to severe (G4-Severe) storm levels during the period. Unsettled to active levels were observed on 26-28 May due to negative polarity CH HSS influence. Minor (G1) to Strong (G3) storm conditions were observed on 29 May due to CIR effects in advance of a new negative polarity CH HSS. Quiet to isolated G1 (Minor) readings were observed on 30-31 May under continued negative polarity CH HSS influence. On 01 Jun, activity increased to G4 (Severe) storm levels as CME effects from the early 31 May flare reached Earth. During the 01 Jun activity, Bt reached 27 nT, Bz reached as far south as -24 nT and wind speeds exceeded 1100 km/s.

## **Space Weather Outlook**

**02 June - 28 June 2025**

Solar activity is likely to reach moderate levels (R1-R2/Minor-Moderate), with a chance for R3 (Strong), through 06 Jun as Region 4100 makes it to the west limb. A chance for M-class (R1-R2) X-ray activity will persist throughout the outlook period due to multiple regions on the visible as well as multiple active regions scheduled to return from the farside of the Sun.

The current proton event in progress is expected to end on 02 Jun with no additional events expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels on 03-05, 14-22 and 26-28 Jun following recurrent coronal hole influence. The remainder of the period is expected to be at normal to moderate levels.



Geomagnetic field activity is expected to be at mostly elevated levels due to anticipated influence from multiple, recurrent coronal holes. G1 (Minor) to G2 (Moderate) geomagnetic storms are likely on 02-03 Jun due to waning CME effects. Unsettled to active conditions are likely on 04-07 and 10-12 Jun due to recurrent negative polarity CH HSS influence. Unsettled to G1 (Minor) conditions are likely on 13-22 Jun due to positive polarity CH HSS influence. Unsettled to G1 (Minor) conditions are likely on 23-28 Jun due to negative polarity CH HSS influence.



### **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					
26 May	133	113	790	B7.9	8	2	0	5	1	1	0	0
27 May	137	116	790	B8.8	6	0	0	1	0	0	0	0
28 May	144	126	880	B8.5	11	0	0	4	0	0	0	0
29 May	145	122	870	B6.9	6	0	0	1	0	0	0	0
30 May	157	107	980	C1.0	8	3	0	9	0	0	0	0
31 May	164	96	860	C1.5	9	4	0	18	1	1	0	0
01 June	150	97	780	B7.7	10	0	0	4	1	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	
26 May	4.2e+05	1.5e+04			3.0e+07
27 May	3.5e+05	1.5e+04			1.5e+07
28 May	2.5e+05	1.6e+04			1.3e+07
29 May	2.4e+06	1.6e+04			1.9e+07
30 May	2.2e+06	1.8e+04			1.2e+08
31 May	4.0e+07	7.9e+05			3.0e+08
01 June	1.2e+09	1.1e+07			1.9e+07

### **Daily Geomagnetic Data**

Date	Middle Latitude		High Latitude		Estimated	
	A	K-indices	A	K-indices	A	Planetary K-indices
26 May	8	2-2-2-2-3-2-2-2	5	2-1-2-1-2-1-1-2	8	2-2-2-2-3-1-2-3
27 May	12	2-2-1-3-3-2-3-4	23	3-2-2-3-5-5-3-4	15	2-2-2-3-3-3-4-4
28 May	17	3-4-3-3-3-3-3-3	36	4-5-5-6-3-5-3-2	18	4-4-3-3-2-3-3-3
29 May	38	5-5-4-5-4-4-5-4	69	6-5-6-7-6-6-4-3	65	7-5-5-6-6-6-5
30 May	18	4-3-3-3-4-3-3-3	48	5-5-6-5-5-6-3-3	30	5-4-4-3-4-4-4-4
31 May	12	3-3-3-2-3-2-2-3	32	3-4-4-5-6-4-3-3	16	3-3-3-2-4-2-3-4
01 June	59	5-6-6-5-6-4-6-4	79	5-6-7-6-7-5-6-3	56	5-5-8-7-8-5-7-4



## ***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>
26 May 1420	ALERT: Type II Radio Emission	26/1336
26 May 2117	WATCH: Geomagnetic Storm Category G1 predicted	
27 May 2003	WARNING: Geomagnetic K = 4	27/2004 - 28/0900
27 May 2032	ALERT: Geomagnetic K = 4	
28 May 0501	WARNING: Geomagnetic K = 5	28/0501 - 1200
28 May 0502	EXTENDED WARNING: Geomagnetic K = 4	27/2004 - 28/1500
28 May 1747	WARNING: Geomagnetic K = 4	28/1747 - 29/0900
29 May 0113	ALERT: Geomagnetic K = 4	
29 May 0115	EXTENDED WARNING: Geomagnetic K = 4	28/1747 - 29/2100
29 May 0116	WARNING: Geomagnetic K = 5	29/0113 - 2100
29 May 0122	ALERT: Geomagnetic K = 5	
29 May 0126	WARNING: Geomagnetic K = 6	29/0126 - 1500
29 May 0130	ALERT: Geomagnetic K = 6	
29 May 0212	WARNING: Geomagnetic K >= 7	29/0211 - 0600
29 May 0216	ALERT: Geomagnetic K = 7	
29 May 0453	ALERT: Geomagnetic K = 5	
29 May 0828	ALERT: Geomagnetic K = 5	
29 May 1035	ALERT: Geomagnetic K = 5	
29 May 1357	ALERT: Geomagnetic K = 5	
29 May 1457	EXTENDED WARNING: Geomagnetic K = 6	29/0126 - 2100
29 May 1458	ALERT: Geomagnetic K = 6	
29 May 1533	ALERT: Geomagnetic K = 5	
29 May 1801	ALERT: Geomagnetic K = 6	
29 May 1852	ALERT: Geomagnetic K = 5	
29 May 1859	WATCH: Geomagnetic Storm Category G2 predicted	
29 May 2056	EXTENDED WARNING: Geomagnetic K = 5	29/0113 - 30/1200
29 May 2056	EXTENDED WARNING: Geomagnetic K = 4	28/1747 - 30/2100
29 May 2056	EXTENDED WARNING: Geomagnetic K = 6	29/0126 - 30/0900
29 May 2058	ALERT: Geomagnetic K = 6	

## ***Alerts and Warnings Issued***

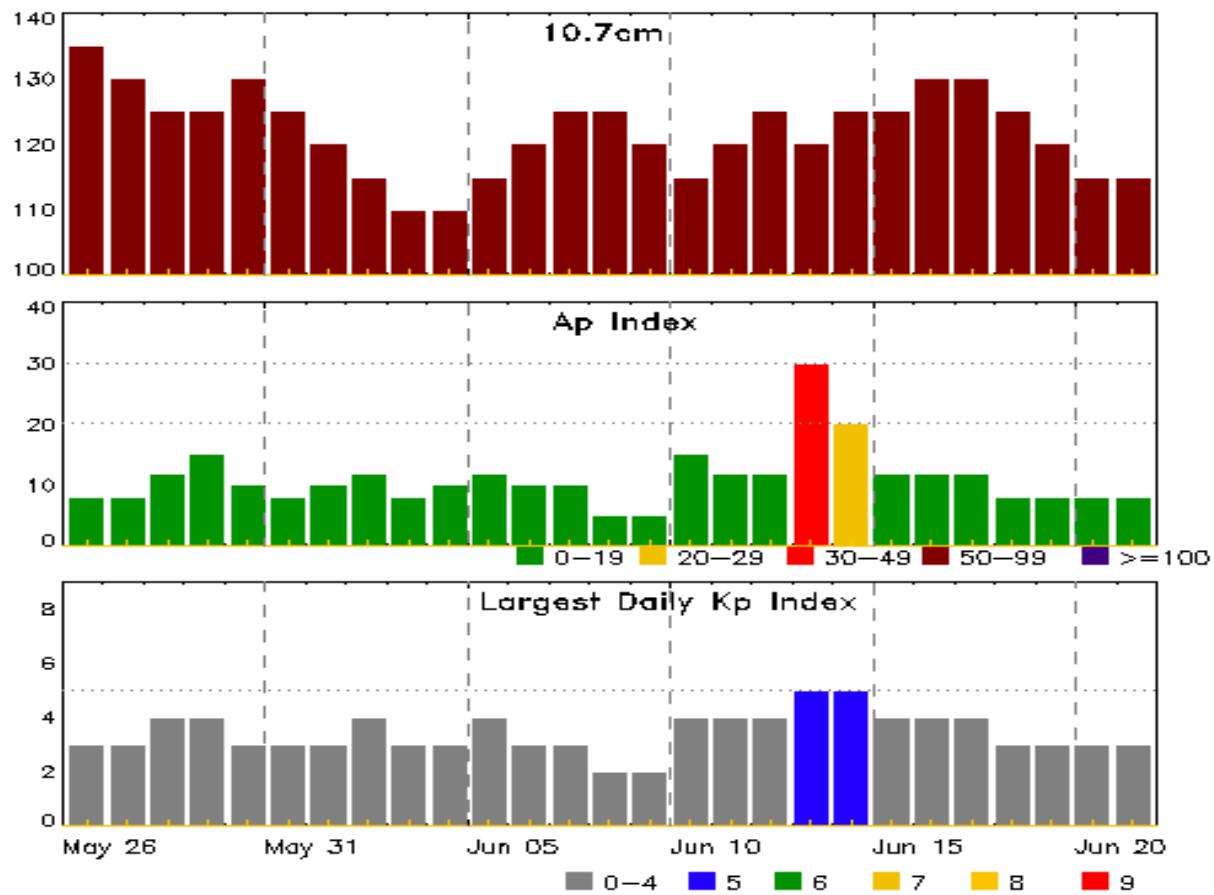
<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
29 May 2153	ALERT: Geomagnetic K = 5	
30 May 0202	ALERT: Geomagnetic K = 5	
30 May 0212	ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/0155
30 May 0629	ALERT: Type II Radio Emission	30/0612
30 May 1142	EXTENDED WARNING: Geomagnetic K = 5	29/0113 - 30/1800
30 May 1743	EXTENDED WARNING: Geomagnetic K = 4	28/1747 - 31/0600
30 May 1743	EXTENDED WARNING: Geomagnetic K = 5	29/0113 - 31/0300
30 May 2210	EXTENDED WARNING: Geomagnetic K = 4	28/1747 - 31/2359
30 May 2359	ALERT: X-ray Flux exceeded M5	30/2359
31 May 0023	ALERT: Type II Radio Emission	30/2353
31 May 0141	SUMMARY: X-ray Event exceeded M5	30/2331 - 31/0132
31 May 0146	SUMMARY: 10cm Radio Burst	30/2339 - 31/0121
31 May 0508	ALERT: Type IV Radio Emission	31/0015
31 May 0634	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/0155
31 May 0843	SUMMARY: 10cm Radio Burst	31/0816 - 0817
31 May 0844	ALERT: Type IV Radio Emission	31/0734
31 May 1340	SUMMARY: 10cm Radio Burst	31/1327 - 1327
31 May 1504	WATCH: Geomagnetic Storm Category G4 or greater predicted	
31 May 1506	WARNING: Proton 10MeV Integral Flux $>$ 10pfu	31/1505 - 01/0600
31 May 1558	SUMMARY: 10cm Radio Burst	31/1543 - 1547
31 May 1651	ALERT: Type IV Radio Emission	31/1556
31 May 1717	ALERT: Proton Event 10MeV Integral Flux $\geq$ 10pfu	31/1717
31 May 1957	WATCH: Geomagnetic Storm Category G4 or greater predicted	
31 May 2226	EXTENDED WARNING: Geomagnetic K = 4	28/1747 - 01/2359
01 Jun 0055	WARNING: Geomagnetic K = 5	01/0054 - 2359
01 Jun 0159	ALERT: Geomagnetic K = 5	
01 Jun 0526	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/0155



## ***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>
01 Jun 0540	WARNING: Geomagnetic Sudden Impulse expected	01/0540 - 0610
01 Jun 0541	WARNING: Geomagnetic K = 6	01/0540 - 2359
01 Jun 0548	EXTENDED WARNING: Proton 10MeV Integral Flux > 10pfu	31/1505 - 02/1200
01 Jun 0549	ALERT: Proton Event 10MeV Integral Flux >= 100pfu	01/0540
01 Jun 0552	ALERT: Geomagnetic K = 5	
01 Jun 0613	SUMMARY: Geomagnetic Sudden Impulse	01/0542
01 Jun 0617	ALERT: Geomagnetic K = 5	
01 Jun 0633	ALERT: Geomagnetic K = 6	
01 Jun 0720	WARNING: Geomagnetic K>= 7	01/0720 - 2100
01 Jun 0721	ALERT: Geomagnetic K = 7	
01 Jun 0804	ALERT: Geomagnetic K = 8	
01 Jun 0929	ALERT: Geomagnetic K = 5	
01 Jun 1015	ALERT: Geomagnetic K = 6	
01 Jun 1049	ALERT: Geomagnetic K = 7	
01 Jun 1219	ALERT: Geomagnetic K = 5	
01 Jun 1231	ALERT: Geomagnetic K = 6	
01 Jun 1242	ALERT: Geomagnetic K = 7	
01 Jun 1347	ALERT: Geomagnetic K = 8	
01 Jun 1650	SUMMARY: Proton Event 10MeV Integral Flux >= 100pfu	01/0540 - 1240
01 Jun 1725	ALERT: Geomagnetic K = 5	
01 Jun 1905	ALERT: Geomagnetic K = 5	
01 Jun 1923	ALERT: Geomagnetic K = 6	
01 Jun 1929	ALERT: Geomagnetic K = 7	
01 Jun 2035	EXTENDED WARNING: Geomagnetic K = 4	28/1747 - 02/2359
01 Jun 2035	EXTENDED WARNING: Geomagnetic K = 5	01/0054 - 02/2100
01 Jun 2035	EXTENDED WARNING: Geomagnetic K>= 7	01/0720 - 02/0900
01 Jun 2035	EXTENDED WARNING: Geomagnetic K = 6	01/0540 - 02/1200

## Twenty-seven Day Outlook



Date	Radio Flux	Planetary	Largest	Date	Radio Flux	Planetary	Largest
	10.7cm	A Index	Kp Index		10.7cm	A Index	Kp Index
02 Jun	150	85	8	16 Jun	160	15	4
03	150	35	5	17	160	12	4
04	150	18	4	18	155	10	3
05	150	20	4	19	155	8	3
06	155	15	3	20	160	8	3
07	155	10	3	21	155	8	3
08	155	8	3	22	150	8	3
09	155	5	2	23	145	12	4
10	155	15	4	24	140	15	4
11	150	12	4	25	140	35	6
12	150	10	3	26	130	25	5
13	155	35	6	27	130	12	4
14	155	25	5	28	125	8	3
15	155	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 #	Radio Flux 245	2695	II	IV
26 May	1250	1306	1315	M2.9	0.004	2N	S05W67		4098			
26 May	1327	1337	1344	M1.4	0.014	1F	N11E70		4100	2000		2
30 May	0556	0613	0619	M3.4	0.001	SF	N06E55		4100	130		2
30 May	1822	1839	1854	M1.6	0.026	SF	N06E46		4104			
30 May	2331	0005	0132	M8.1	0.390				4100			2
31 May	0349	0356	0404	M1.0	0.009				4100			
31 May	0512	0518	0520	M2.4	0.002	SN	N11E05		4100	360	150	
31 May	0808	0818	0823	M4.5	0.001	1N	N11E05		4100	5000	220	
31 May	1536	1549	1557	M2.9	0.021	2B	N06E03		4100	110	210	1

## *Flare List*

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat	CMD #
26 May	0128	0144	0153	C1.9			4094
26 May	0153	0159	0204	C2.0			4098
26 May	0218	0229	0241	C5.6			4098
26 May	0439	0443	0451	C1.7	SF	S14E75	4099
26 May	0701	0716	0724	C6.5	SF	S06W64	4098
26 May	0831	0831	0834		SF	S15E63	4099
26 May	1117	1123	1130	C1.4	SF	S06W68	4098
26 May	1250	1306	1315	M2.9	2N	S05W67	4098
26 May	1326	1331	1359	M1.4	1F	N11E70	4100
26 May	2127	2133	2135	B9.4			4098
26 May	2135	2142	2147	C1.0			4098
26 May	2231	2250	2303	C9.8	SF	S05W70	4098
27 May	0018	0022	0027	B9.7			4100
27 May	0115	0120	0124	C1.2			4100
27 May	0136	0141	0144	C1.4			4098
27 May	0652	0700	0703	C2.3			4100
27 May	0743	1011	1159	C5.0	SF	N18E62	4100
27 May	2131	2138	2145	C1.6			4100
27 May	2314	2321	2327	C1.5			4100
28 May	0118	0121	0125	C2.1			4100
28 May	0537	0548	0554	C1.8	SF	S14E41	4099
28 May	0555	0558	0602	C1.9			4099



## Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
28 May	0614	0614	0614		SF	S12E40	4099
28 May	0655	0704	0710	C1.4			4099
28 May	0700	0701	0704		SF	N11E54	4100
28 May	1034	1045	1049	C2.8			
28 May	1140	1147	1154	C2.0			4099
28 May	1220	1225	1236	C1.2			4099
28 May	1532	1539	1546	C1.5			4099
28 May	1621	1631	1638	C3.0	SF	S14E34	4099
28 May	1709	1714	1718	C1.4			4100
28 May	2254	2300	2315	C1.5			4100
29 May	0031	0037	0041	B9.8			4100
29 May	0251	0301	0305	C7.0			4100
29 May	0955	1001	1006	C1.2			
29 May	1401	1401	1405		SF	N12E28	4100
29 May	1756	1804	1813	B9.4			4100
29 May	1822	1840	1850	C1.4			4100
29 May	1850	1853	1855	C1.4			4100
29 May	1925	1932	1934	C1.1			
29 May	2356	0002	0004	C1.6			
30 May	0531	0538	0540	C1.5	SF	N05E11	4101
30 May	0556	0613	0619	M3.4	SF	N06E55	4100
30 May	0642	0647	0653		SF	N06E54	
30 May	0658	0706	0712	C2.1			4100
30 May	0732	0733	0737		SF	N08E17	4100
30 May	0944	0945	0956		SF	N06E52	
30 May	1041	1058	1116	C3.6	SF	N06E52	4104
30 May	1431	1436	1440	C1.5	SF	N05E18	4100
30 May	1523	1532	1539	C1.9	SF	N06E50	4104
30 May	1806	1819	1822	C4.2			4104
30 May	1810	1852	1940	M1.6	SF	N06E46	4104
30 May	2051	2058	2103	C2.0			4100
30 May	2136	2144	2150	C1.5			4100
30 May	2331	0005	0132	M8.1			4100
31 May	0349	0356	0404	M1.0			4100
31 May	0511	0518	0542	M2.4	SN	N11E05	4100
31 May	0557	0600	0613		SF	N11E06	4100
31 May	0627	0628	0630		SF	N09E05	4100
31 May	0656	0705	0707	C5.5	SF	N09E05	4100



## Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/Brtns	Location Lat CMD	Rgn #
31 May	0722	0727	0730	C7.0	SF	N11E05	4100
31 May	0745	0752	0756		SF	N11E05	4100
31 May	0808	0818	0823	M4.5	1N	N11E05	4100
31 May	1001	1009	1022	C3.2	SF	N10E02	4100
31 May	1054	1101	1105		SF	N10E02	4100
31 May	1135	1139	1142	C2.6	SF	N09E01	4100
31 May	1151	1152	1159		SF	S12W04	4099
31 May	1321	1328	1330	C6.5	SN	N10E00	4100
31 May	1334	1336	1404		SF	N13E09	4100
31 May	1536	1549	1557	M2.9	2B	N06E03	4100
31 May	1723	1724	1726		SF	N07W02	4100
31 May	1813	1820	1824	C2.5	SF	N10W03	4100
31 May	1900	1906	1908	C4.8	SN	N10W03	4100
31 May	2011	2016	2022		SF	N07W03	4100
31 May	2154	2158	2202	C2.2	SF	N07E06	4100
31 May	2231	2234	2240	C2.2	SN	N10W04	4100
01 Jun	0012	0018	0021	C4.0			4099
01 Jun	0029	0035	0041	C1.7			4099
01 Jun	0119	0125	0129	C1.6			4099
01 Jun	0256	0304	0306	C1.5			4099
01 Jun	0419	0430	0437	C1.8	SF	N10W08	4100
01 Jun	0540	0545	0547	C1.8			4100
01 Jun	0717	0725	0728	C1.3			4100
01 Jun	1240	1242	1247		SF	N05W08	4100
01 Jun	1434	1443	1449	C8.9	1B	N10W15	4100
01 Jun	1613	1622	1626	C3.8	SN	N10W14	4100
01 Jun	2321	2327	2330	C1.1	SF	N09W20	4100

## 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
<b>Region 4089</b>																
16 May	N18E55		28		30		7	Dro	3	B		1				
17 May	N18E44		26		30		5	Dro	6	B						
18 May	N17E29		28		20		5	Cro	4	B		1				
19 May	N18E16		28		20		5	Bxi	6	B						
20 May	N18E01		29		10		5	Bxo	5	B						
21 May	N11W13		30		plage											
22 May	N11W27		31		plage											
23 May	N11W41		32		plage											
24 May	N11W55		33		plage											
25 May	N11W69		33		plage											
26 May	N11W83		34		plage											
										2	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 29

## Region 4090

Date	Lat	CMD	21	60	4	Cao	3	B	0	0	0	0	0	0	0	0
16 May	S12E63		19	40	4	Cso	2	B								
17 May	S12E51		20	40	2	Hax	2	A								
18 May	S13E37		22	40	2	Hax	3	A								
19 May	S12E22		22	40	2	Hax	2	A								
20 May	S12E09		21	30	1	Hax	2	A								
21 May	S12W04		21	30	1	Hsx	1	A								
22 May	S12W17		21	30	1	Hsx	1	A								
23 May	S12W30		21	20	1	Hsx	1	A								
24 May	S12W43		21	40	1	Hsx	1	A								
25 May	S13W57		21	30	1	Hsx	1	A								
26 May	S13W70		21	20	1	Hrx	1	A								
27 May	S13W84		22	10	1	Axx	1	A								

Crossed West Limb.

Absolute heliographic longitude: 21



## ***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 4091</b>																
17 May	S13E37		32		20		3	Cro	3	B						
18 May	S13E24		33		30		3	Cao	3	B						
19 May	S13E09		35		10		2	Bxo	3	B						
20 May	S13W05		36		plage											
21 May	S13W20		37		plage											
22 May	S13W34		38		plage											
23 May	S13W48		39		plage											
24 May	S13W62		40		plage											
25 May	S13W76		40		plage											
26 May	S13W90		41		plage											
										0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 36

## **Region 4092**

18 May	S14E80	338	plage										1			
19 May	S14E66	338		30		1	Hsx	1	A							
20 May	S13E52	339		50		1	Hsx	1	A							
21 May	S13E39	338		50		2	Hsx	1	A							
22 May	S14E25	339		60		1	Hsx	1	A							
23 May	S13E13	338		60		1	Hsx	1	A							
24 May	S13W01	339		110		2	Hsx	1	A							
25 May	S13W14	338		110		2	Hsx	1	A							
26 May	S13W28	339		110		2	Hsx	1	A							
27 May	S13W41	339		110		2	Hsx	1	A							
28 May	S13W55	340		110		2	Hsx	1	A							
29 May	S13W66	337		120		3	Cso	3	B							
30 May	S13W82	340		120		2	Hsx	1	A							
										1	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 339

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

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
<b>Region 4093</b>																
20 May	S06E64		327		30		7	Cro	5	B		8				
21 May	S06E52		325		30		7	Cao	3	B		3				
22 May	S07E36		328		20		1	Hsx	1	A						
23 May	S07E23		328		20		1	Hsx	1	A						
24 May	S06E09		329		20		1	Hsx	1	A						
25 May	S06W05		329		20		1	Hrx	1	A						
26 May	S06W18		329		10		1	Axx	1	A						
27 May	S06W33		331		plage											
28 May	S06W48		333		plage											
29 May	S06W63		334		plage											
30 May	S06W78		336		plage											
										11	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 329

## **Region 4094**

21 May	N20E49		328		30		2	Cro	3	B						
22 May	N20E35		329		10		4	Cro	2	B						
23 May	N21E25		326		20		6	Cro	7	B						
24 May	N20E08		330		10		2	Axx	2	A	1					
25 May	N20W06		330		plage											
26 May	N20W20		331		plage						1					
27 May	N20W34		332		plage											
28 May	N20W47		332		10		1	Axx	2	A						
29 May	N20W61		332		10		1	Axx	1	A						
30 May	N20W75		333		plage											
31 May	N20W89		334		plage								2	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 330



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

Date	Lat	CMD	Location		Sunspot Characteristics					Flares						
			Helio Lon	$10^6$ hemi. (helio)	Area 10 <sup>6</sup> hemi.	Extent Class	Spot Count	Spot Mag Class	X-ray			Optical				
									C	M	X	S	1	2	3	4
<b>Region 4096</b>																
21 May	N06E71		306		30	1	Hsx	1	A							
22 May	N06E57		307		50	2	Hsx	1	A							
23 May	N06E45		306		40	1	Hsx	1	A							
24 May	N06E31		307		60	2	Hsx	1	A							
25 May	N06E18		306		60	2	Hsx	1	A							
26 May	N06E04		307		60	2	Hsx	1	A							
27 May	N06W10		308		60	2	Hsx	1	A							
28 May	N06W23		308		60	2	Hsx	1	A							
29 May	N06W35		306		60	2	Hsx	1	A							
30 May	N07W49		307		60	2	Hsx	1	A							
31 May	N07W64		309		60	2	Hsx	1	A							
01 Jun	N05W76		308		30	1	Hsx	1	A							
										0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 307

## **Region 4097**

22 May	S13E63		301		20	3	Cro	4	B							2
23 May	S13E45		306		30	6	Cri	8	BG	2						3
24 May	S13E30		308		30	4	Cro	5	B							
25 May	S14E19		305		10	4	Bxo	4	B	1						1
26 May	S14E06		305		10	1	Axx	1	A							
27 May	S14W08		306		plage											
28 May	S14W22		307		plage											
29 May	S14W36		307		plage											
30 May	S14W50		308		plage											
31 May	S14W64		309		plage											
01 Jun	S14W78		310		plage											
										3	0	0	6	0	0	0

Still on Disk.

Absolute heliographic longitude: 305

## ***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

### ***Region 4098***

23 May	S05W26	17	30	6	Cai	7	B									
24 May	S05W41	19	100	7	Dai	13	B	9	1				3	2		
25 May	S04W57	21	170	8	Dai	12	BG	4	3	1		5	1	1		
26 May	S04W70	21	180	8	Dai	12	BG	6	1			3		1		
27 May	S04W84	22	100	8	Cao	4	B	1		20	5	1	11	3	2	0
																0

Crossed West Limb.

Absolute heliographic longitude: 17

### ***Region 4099***

25 May	S13E67	257	110	4	Cao	3	B	2								
26 May	S13E54	257	150	6	Dac	10	B	1								
27 May	S13E41	257	210	7	Dac	10	B									
28 May	S13E29	256	250	7	Dkc	16	BD	7								
29 May	S13E16	255	250	6	Dkc	16	BD									
30 May	S14E03	255	250	7	Dkc	13	BGD									
31 May	S14W11	256	250	7	Dkc	13	BGD									1
01 Jun	S14W24	256	250	6	Dki	11	BG	4		14	0	0	8	0	0	0
																0

Still on Disk.

Absolute heliographic longitude: 255

### ***Region 4100***

26 May	N07E66	245	250	6	Dko	6	B		1							
27 May	N08E55	243	270	13	Eko	12	B	5								
28 May	N08E43	242	410	15	Eki	14	BG	3								
29 May	N08E28	243	390	11	Eki	14	BG	3								
30 May	N08E14	244	440	14	Eki	26	BG	4	2			3				
31 May	N08W00	245	440	14	Ekc	26	BGD	9	4		17	1	1			
01 Jun	N10W15	247	430	15	Ekc	27	BG	6		30	7	0	27	3	1	0
																0

Still on Disk.

Absolute heliographic longitude: 245



## ***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 4101</b>																	
27 May	N03E40		258		20		3	Bxo	3	B							
28 May	N03E26		259		20		6	Cro	6	B							
29 May	N03E12		259		20		6	Bxo	5	B							
30 May	N05W01		259		30		5	Dao	3	B	1			1			
31 May	N05W14		259		30		5	Dao	3	B							
01 Jun	N04W28		260		30		5	Dao	5	B							
											1	0	0	1	0	0	0

Still on Disk.

Absolute heliographic longitude: 259

<b>Region 4102</b>																	
27 May	S22E01		297		10		3	Bxo	4	B							
28 May	S22W12		297		10		3	Bxo	2	B							
29 May	S22W26		297		10		1	Axx	1	A							
30 May	S22W40		298		plage												
31 May	S22W54		299		plage												
01 Jun	S22W68		300		plage												
											0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 297

<b>Region 4103</b>																	
28 May	S17W01		286		10		3	Bxo	4	B							
29 May	S17W16		287		10		1	Axx	1	A							
30 May	S17W30		288		plage												
31 May	S17W44		289		plage												
01 Jun	S17W58		290		plage												
											0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 286

<b>Region 4104</b>																	
30 May	N06E42		216		80		4	Dso	3	B	3	1		2			
31 May	N06E27		218		80		4	Dso	3	B							
01 Jun	N06E15		217		40		5	Dao	3	B							
											3	1	0	2	0	0	0

Still on Disk.

Absolute heliographic longitude: 217



## ***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.  
Comments and suggestions are welcome SWPC.Webmaster@noaa.gov

The Weekly has been published continuously since 1951 and is available online since 1997.

<https://www.swpc.noaa.gov/products/weekly-highlights-and-27-day-forecast> --

Current

<ftp://ftp.swpc.noaa.gov/pub/warehouse> -- Online archive from 1997

<https://www.ngdc.noaa.gov/stp/satellite/goes-r.html> -- NCEI GOES data  
textarchive

<https://www.swpc.noaa.gov/products/solar-cycle-progression> -- Solar Cycle  
Progression web site

<https://www.swpc.noaa.gov/content/contact-us> -- Contact and Copyright  
information

[https://www.swpc.noaa.gov/sites/default/files/images/u2/Usr\\_guide.pdf](https://www.swpc.noaa.gov/sites/default/files/images/u2/Usr_guide.pdf) -- User  
Guide

