

Solar activity was at very low levels. An isolated C1 flare peaked at 09/0004 UTC just after the reporting period from new Region 2853 (N23, L=192, class/area Axx/010 on 08 Aug). The single spot just appeared late on 08 Aug but was preceded by an area of active plage which rotated onto the visible disk on 06 Aug. No Earth-directed CMEs were observed.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 04-05 Aug with a peak flux of 1,570 pfu observed at 05/1725 UTC.

Geomagnetic field activity ranged from quiet to G1 (Minor) geomagnetic storming. An enhancement in the IMF field began at 02/0900 UTC, likely from a glancing blow from the 28 Jul CME. Total field reached a peak of 13 nT at 02/1810 UTC, while the Bz component was mostly negative for 1.5 days reaching -13 nT briefly 02/1815 UTC. Solar wind speed at this time was between 300-400 km/s. The geomagnetic field responded with quiet to G1 storm levels on 02 Aug and quiet to active levels on 03 Aug. Quiet conditions were observed on 04 Aug through late on 06 Aug. By the middle of 06 Aug, a likely CIR preceding a weak positive polarity coronal hole high speed stream (CH HSS) was observed causing total field to increase to a maximum of 13 nT at 07/0620 UTC along with a prolonged period of southward Bz to -9 nT. Solar wind speed briefly increased to near 475 km/s on 07 Aug before declining to below 400 km/s by midday on 08 Aug. The geomagnetic field reached unsettled periods late on 06 Aug through 07 Aug followed by quiet levels on 08 Aug.

### **Space Weather Outlook**

#### **09 August - 04 September 2021**

Solar activity is expected to be at very low levels with a chance for further C-class flares through 19 Aug if Region 2853 continues to develop and show activity.

No proton events are expected at geosynchronous orbit.

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

Geomagnetic field activity is expected to reach unsettled levels on 09-10 Aug, 16-18 Aug, 23-25 Aug, and 02-04 Sep and reach active levels on 24 Aug and 03 Sep due to CH HSS activity.



### *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	
02 August	75	13	20	A4.4	0	0	0	0	0	0	0	0	0
03 August	76	15	40	A6.1	0	0	0	0	0	0	0	0	0
04 August	71	14	10	A5.6	0	0	0	0	0	0	0	0	0
05 August	74	36	30	A5.4	0	0	0	0	0	0	0	0	0
06 August	74	0	0	A7.8	0	0	0	1	0	0	0	0	0
07 August	74	0	0	A5.9	0	0	0	0	0	0	0	0	0
08 August	74	11	10	A5.1	1	0	0	5	0	0	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	
	02 August	2.6e+05	4.4e+04	1.0e+07
03 August	5.8e+04	4.3e+04	4.3e+06	
04 August	5.2e+04	4.4e+04	3.4e+07	
05 August	5.6e+04	4.4e+04	6.0e+07	
06 August	8.3e+04	4.4e+04	1.9e+07	
07 August	5.3e+04	4.3e+04	1.5e+06	
08 August	5.2e+04	4.4e+04	1.7e+06	

### *Daily Geomagnetic Data*

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	02 August	15	1-0-1-3-4-3-4-4	17	1-0-0-2-3-5-5-3	17
03 August	13	4-3-3-4-2-1-1-2	24	3-3-5-6-4-2-1-0	10	4-2-3-3-2-1-1-2
04 August	5	2-1-2-2-2-1-1-1	6	2-2-1-4-0-1-0-0	5	2-2-2-1-1-1-0-0
05 August	3	0-0-0-2-2-2-1-0	0	0-0-0-0-0-1-0-0	3	0-0-0-0-1-1-1-0
06 August	9	1-2-2-2-3-2-2-3	8	1-2-3-2-3-2-1-1	7	1-2-1-1-2-2-2-3
07 August	9	2-2-2-3-3-2-2-2	22	3-4-3-4-4-5-2-2	11	3-3-2-3-3-2-2-2
08 August	6	2-1-1-1-3-2-1-2	4	2-1-0-0-3-1-1-0	7	2-1-1-1-2-1-1-2

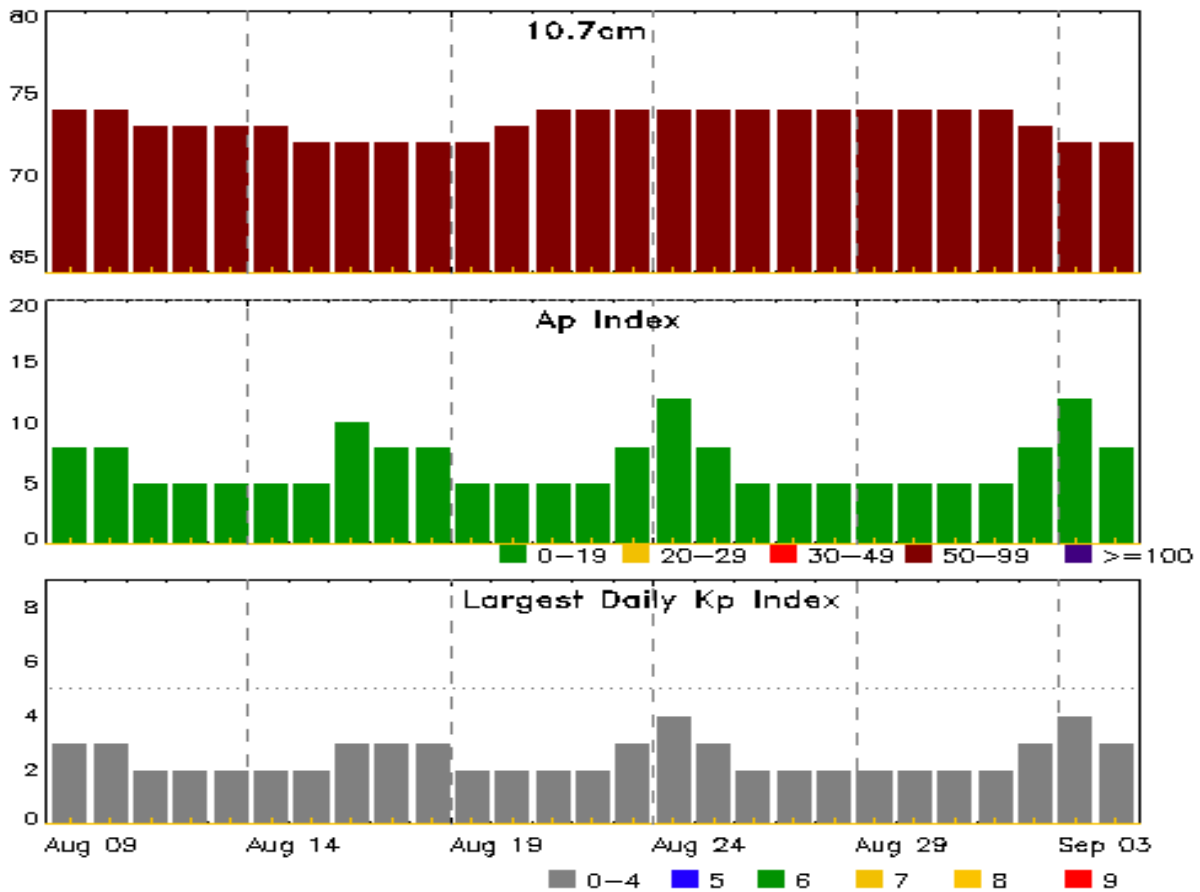


### *Alerts and Warnings Issued*

<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
02 Aug 1712	WARNING: Geomagnetic K = 4	02/1715 - 2100
02 Aug 1744	ALERT: Geomagnetic K = 4	02/1744
02 Aug 1959	EXTENDED WARNING: Geomagnetic K = 4	02/1715 - 03/0300
02 Aug 2000	WARNING: Geomagnetic K = 5	02/1959 - 2359
02 Aug 2026	ALERT: Geomagnetic K = 5	02/2026
05 Aug 1421	ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	05/1405



## 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
09 Aug	74	8	3	23 Aug	74	8	3
10	74	8	3	24	74	12	4
11	73	5	2	25	74	8	3
12	73	5	2	26	74	5	2
13	73	5	2	27	74	5	2
14	73	5	2	28	74	5	2
15	72	5	2	29	74	5	2
16	72	10	3	30	74	5	2
17	72	8	3	31	74	5	2
18	72	8	3	01 Sep	74	5	2
19	72	5	2	02	73	8	3
20	73	5	2	03	72	12	4
21	74	5	2	04	72	8	3
22	74	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	Rgn #	Radio Flux 245	Radio Flux 2695	Intensity II

**No Events Observed**

### *Flare List*

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD	Rgn #	
02 Aug	1829	1835	1838	B1.0				2850
04 Aug	0313	0329	0339	B5.9				2850
04 Aug	1225	1231	1235	B1.1				2850
05 Aug	2224	2234	2256	B1.3				
05 Aug	2322	2331	2341	B1.4				
06 Aug	0707	0713	0717	B1.5	SF	N14W11		2851
06 Aug	1524	1531	1537	B1.4				2850
06 Aug	1912	1921	1935	B2.6				2850
06 Aug	2340	2348	2354	B1.9				2850
07 Aug	1647	1701	1713	B5.4				2850
08 Aug	1641	1642	1645		SF	N25E70		2853
08 Aug	2023	2033	2055		SF	N25E70		2853
08 Aug	2057	2058	2103		SF	N25E70		2853
08 Aug	2112	2116	2140		SF	N25E70		2853
08 Aug	2204	2205	2234		SF	N25E70		2853
08 Aug	2346	0004	0017	C1.3				2853



### Region Summary

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Lon	Helio 10 <sup>-6</sup> hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
									C	M	X	S	1	2	3	4		
<b>Region 2847</b>																		
20 Jul	S29E74	73	20	2		Cro	3	B										
21 Jul	S28E61	73	20	10		Cro	3	B										
22 Jul	S28E47	73	40	2		Hrx	1	A										
23 Jul	S38E28	78	20	1		Hrx	1	A				1						
24 Jul	S27E24	77	10	1		Hrx	1	A										
25 Jul	S27E13	67	0			Axx	1	A										
26 Jul	S28W00	66	10			Axx	1	A										
27 Jul	S28W14	68	0			Axx	1	A										
28 Jul	S28W28	69	plage															
29 Jul	S28W42	70	plage															
30 Jul	S28W56	70	plage															
31 Jul	S28W70	71	plage															
01 Aug	S28W84	72	plage															
										0	0	0	1	0	0	0	0	0

Crossed West Limb.  
 Absolute heliographic longitude: 66

<b>Region 2849</b>																		
21 Jul	S18E75	58	0			Axx	1	A	1									
22 Jul	S18E61	58	20	1		Axx	2	A										
23 Jul	S20E46	59	10			Axx	1	A	1			1						
24 Jul	S27E25	68	plage						1									
25 Jul	S27E11	70	plage															
26 Jul	S27W03	70	plage															
27 Jul	S27W17	71	plage															
28 Jul	S27W31	72	plage															
29 Jul	S27W45	73	plage															
30 Jul	S27W59	73	plage															
31 Jul	S27W73	74	plage															
01 Aug	S17W87	75	plage															
										3	0	0	1	0	0	0	0	0

Crossed West Limb.  
 Absolute heliographic longitude: 70



### *Region Summary - continued*

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

#### ***Region 2850***

02 Aug	S32W29	4	20	4	Cro	3	B										
03 Aug	S32W42	5	40	6	Cso	5	B										
04 Aug	S31W55	3	10	5	Bxo	4	B										
05 Aug	S30W68	3	10	1	Axx	1	A										
06 Aug	S30W82	4	plage														
									0	0	0	0	0	0	0	0	0

Crossed West Limb.  
Absolute heliographic longitude: 4

#### ***Region 2851***

05 Aug	N15W07	302	10	2	Bxo	2	B										
06 Aug	N15W21	303	plage									1					
07 Aug	N15W35	304	plage														
08 Aug	N15W49	304	plage														
									0	0	0	1	0	0	0	0	0

Still on Disk.  
Absolute heliographic longitude: 302

#### ***Region 2852***

05 Aug	S11E42	253	10	3	Bxo	3	B										
06 Aug	S11E28	254	plage														
07 Aug	S11E14	255	plage														
08 Aug	S11W00	255	plage														
									0	0	0	0	0	0	0	0	0

Still on Disk.  
Absolute heliographic longitude: 255

#### ***Region 2853***

08 Aug	N23E63	192	10	1	Axx	1	A	1				5					
								1	0	0	5	0	0	0	0	0	0

Still on Disk.  
Absolute heliographic longitude: 192



## ***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

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> --

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