

Space Weather Highlights
10 August - 16 August 2020

SWPC PRF 2346
17 August 2020

Solar activity was at very low levels on 10-14 and 16 Aug. Low levels were observed on 15 Aug due to a C2 flare from Region 2770 (N23, L=24, class/area Cso/70 on 07 Aug.

Coronal dimming near S30E30 was observed in GOES-16 SUVI 195 imagery around 16/1700 UTC. An associated CME signature was observed in LASCO C2 imagery at 16/1812 UTC and in STEREO-A COR2 coronagraph imagery beginning at 16/1824 UTC. Analysis of this event remains underway at the time of this writing. No other Earth-directed CME activity was detected during the period.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 10-11 Aug due to coronal hole high speed stream influence. The maximum flux of the period was 2,950 pfu observed at 10/1550 UTC. Normal to moderate levels were observed on 12-16 Aug.

Geomagnetic field activity was at quiet levels throughout the period.

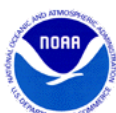
Space Weather Outlook
17 August - 12 September 2020

Solar activity is expected to be at very low 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 reach high levels on 01-07 Sep due to recurrent coronal hole high speed stream influence. Normal to moderate levels are expected for the remainder of the outlook period.

Geomagnetic field activity is expected to be unsettled to active on 30 Aug, unsettled on 19-20 Aug and 29, 31 Aug-all due to recurrent coronal hole high speed stream influence. Quiet levels are expected for the remainder of the outlook 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
10 August	74	12	20	A2.5	0	0	0	0	0	0	0	0
11 August	74	12	10	A3.0	0	0	0	2	0	0	0	0
12 August	73	24	20	A2.4	0	0	0	0	0	0	0	0
13 August	72	11	10	A1.8	0	0	0	0	0	0	0	0
14 August	71	0	0	A1.3	0	0	0	0	0	0	0	0
15 August	71	0	0	A0.0	1	0	0	1	0	0	0	0
16 August	71	0	0	A0.0	0	0	0	0	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
	10 August	6.4e+04	4.9e+04
11 August	6.9e+04	4.9e+04	1.0e+08
12 August	1.3e+05	4.8e+04	4.1e+07
13 August	1.1e+05	4.7e+04	2.9e+07
14 August	1.3e+05	4.6e+04	2.7e+07
15 August	1.7e+05	4.6e+04	1.4e+07
16 August	1.6e+05	4.6e+04	6.6e+06

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	10 August	3	1-1-0-1-2-1-1-0	1	1-1-0-0-0-0-0-0	3
11 August	3	1-1-1-0-2-0-1-1	0	0-0-0-0-0-0-0-0	3	1-1-0-0-1-0-0-1
12 August	3	0-2-1-1-2-1-1-0	3	0-1-1-2-2-0-0-0	3	0-1-1-1-1-1-1-0
13 August	5	1-1-1-1-3-1-1-1	0	1-0-0-0-0-0-0-0	4	1-1-0-1-1-1-0-1
14 August	3	0-2-1-1-2-1-1-0	0	0-1-0-0-0-0-0-0	4	1-2-1-0-1-1-1-1
15 August	3	0-0-2-1-2-1-2-0	1	0-0-2-0-0-0-0-0	3	0-0-1-1-1-0-1-1
16 August	5	0-2-1-1-2-2-2-1	2	1-1-1-0-0-0-0-1	4	1-2-1-1-1-1-1-1

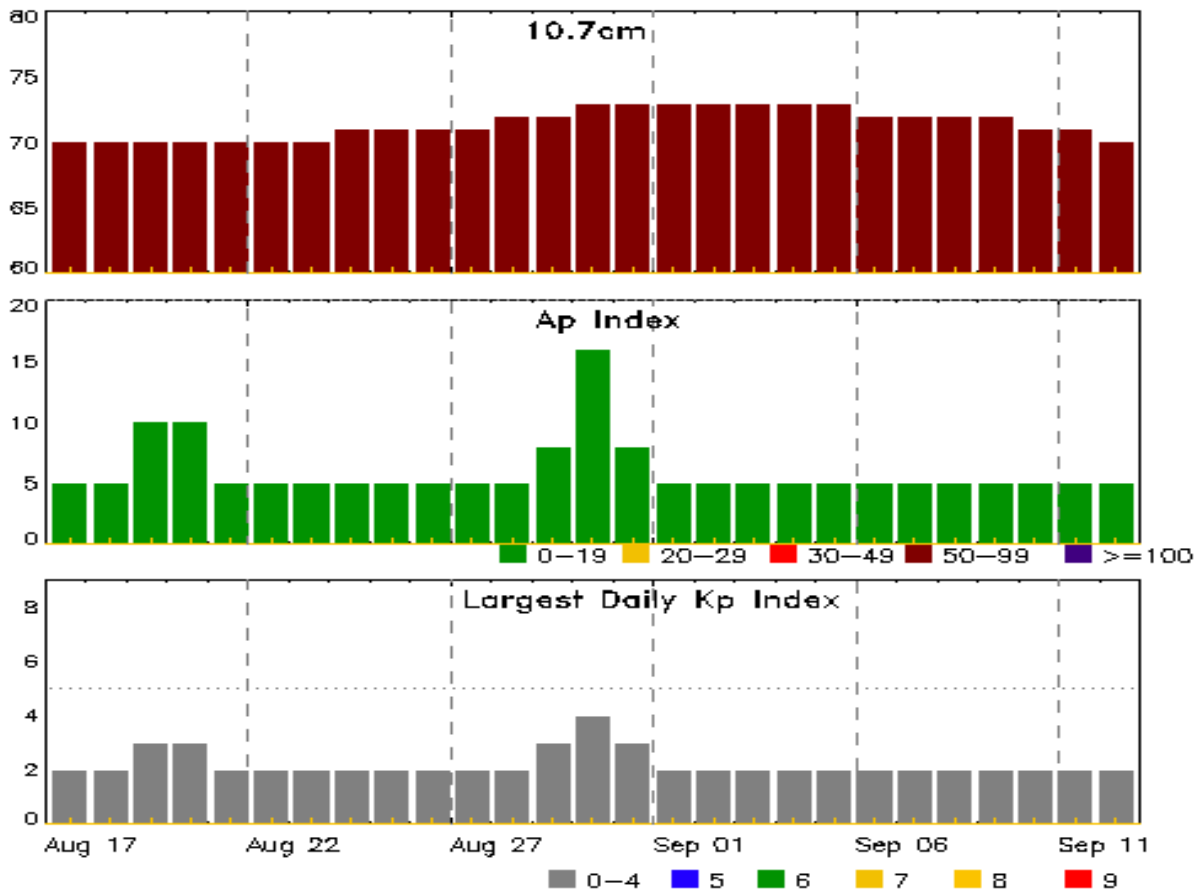


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
10 Aug 0942	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	05/1010
11 Aug 1007	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	05/1010



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
17 Aug	70	5	2	31 Aug	73	8	3
18	70	5	2	01 Sep	73	5	2
19	70	10	3	02	73	5	2
20	70	10	3	03	73	5	2
21	70	5	2	04	73	5	2
22	70	5	2	05	73	5	2
23	70	5	2	06	72	5	2
24	71	5	2	07	72	5	2
25	71	5	2	08	72	5	2
26	71	5	2	09	72	5	2
27	71	5	2	10	71	5	2
28	72	5	2	11	71	5	2
29	72	8	3	12	70	5	2
30	73	16	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 245	2695	Intensity II

No Events Observed

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
10 Aug	2347	2352	2358	B2.3				
11 Aug	0848	0855	0904	B1.0				
11 Aug	1632	1659	1717	B2.6				2770
11 Aug	1643	1644	1650		SF	N26W24		2770
11 Aug	1657	1659	1704		SF	N22W31		2770
11 Aug	1934	1941	1947	B1.0				
11 Aug	2325	2335	2341	B1.9				
12 Aug	0137	0149	0153	B2.0				
12 Aug	0158	0202	0208	B1.4				
12 Aug	0217	0221	0225	B1.0				
12 Aug	0344	0351	0400	B1.0				
15 Aug	0632	0647	0700	C2.0	SF	N26W70		2770
16 Aug	0511	0516	0521	A6.8				2770
16 Aug	1712	1726	1736	B1.2				



Region Summary

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

Region 2769

02 Aug	N26E53	59	10	1	Axx	1	A										
03 Aug	N27E41	58	10	2	Axx	2	A										
04 Aug	N27E27	59	plage														
05 Aug	N27E13	60	plage														
06 Aug	N27W01	60	plage														
07 Aug	N27W15	61	plage														
08 Aug	N27W29	62	plage														
09 Aug	N27W43	63	plage														
10 Aug	N27W57	64	plage														
11 Aug	N27W71	64	plage														
12 Aug	N27W85	65	plage														
									0	0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 60

Region 2770

03 Aug	N21E72	25	60	1	Hsx	1	A										
04 Aug	N23E60	26	50	10	Cso	2	B										
05 Aug	N22E49	24	160	8	Cso	3	B										
06 Aug	N23E36	23	70	6	Cso	4	B										
07 Aug	N23E22	24	70	6	Cso	4	B										
08 Aug	N22E08	24	50	1	Hsx	1	A	1			1						
09 Aug	N22W04	24	30	4	Cso	3	B										
10 Aug	N23W17	24	20	2	Hrx	2	A										
11 Aug	N23W30	23	10	1	Axx	2	A						2				
12 Aug	N23W44	23	10	1	Axx	1	A										
13 Aug	N22W56	22	plage														
14 Aug	N26W71	24	plage														
15 Aug	N26W85	25	plage					1			1						
								2	0	0	4	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 24



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Lon	Helio 10 ⁻⁶ hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
									C	M	X	S	1	2	3	4		
Region 2771																		
12 Aug	S18E43	297	10			Bxo	3	B										
13 Aug	S18E31	296	10		1	Axx	1	A										
14 Aug	S18E17	297	plage															
15 Aug	S18E03	297	plage															
16 Aug	S18W11	298	plage															
										0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 297



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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