

Solar activity was at low levels. No R1 (Minor) events were observed. The strongest flare observed was a C8.9 flare from Region 4491 (S11, L=155, class/area=Hrx/020 on 17 Jul). The other eight active regions were either quiet or only produced low-level C-class activity.

Other activity included an area of large-scale reconnection in the SW quadrant early on 19 Jul. A double ribbon signature was observed in multiple SUVI wavelengths. Subsequent LASCO C2 imagery contained a slow-moving CME signature to the west that lined up well with the event's timing. No active regions or filaments were identified as sources for the eruption. Most of the ejecta is expected to pass upstream of Earth; however, given its source location on the Sun, a glancing blow is possible on days three or four (23-24 Jul).

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 13 Jul and dropped to moderate levels over 14-15 Jul following activity from a passing CME. Coronal hole activity on 15-16 Jul increased levels to high from 16-19 Jul.

Geomagnetic field activity reached active levels on 13 Jul due to waning CME effects. Active levels on 25 Jul and unsettled levels on 16 Jul were in response to influence from a weak positive polarity CH HSS. The remainder of the summary period was at quiet levels.

Space Weather Outlook **20 July - 15 August 2026**

Solar activity is expected to be at mostly low levels, with a slight chance for moderate (R1-R2/Minor-Moderate) activity, throughout the outlook period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is are likely to reach high levels over 24-27 Jul and 02-07 Aug due to the anticipated influence of multiple, recurrent, coronal hole HSSs. The remainder of the outlook period is expected to be at mostly quiet levels.

Geomagnetic field activity is likely to reach G1 (Minor) geomagnetic storm levels on 22 Jul as a negative polarity CH HSS becomes geoeffective. Conditions are likely to decrease to active on 23 Jul and unsettled on 24 Jul as coronal influence wanes. Subsequent coronal holes are likely to cause active conditions on 01 Aug and 04-05 Aug, with unsettled levels likely over 02 Aug and 06 Aug. The remainder of the outlook period is likely to observed mostly quiet conditions.



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
13 July	103	59	600	B4.3	2	0	0	0	0	0	0	0
14 July	100	36	410	B3.7	2	0	0	0	0	0	0	0
15 July	100	25	400	B3.0	4	0	0	2	0	0	0	0
16 July	101	47	340	B3.3	2	0	0	0	0	0	0	0
17 July	105	26	190	B4.2	0	0	0	0	0	0	0	0
18 July	110	24	180	B6.2	3	0	0	1	0	0	0	0
19 July	119	44	410	B7.2	2	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	
13 July	5.4e+05	1.8e+04	5.8e+07	
14 July	7.3e+05	1.8e+04	3.3e+07	
15 July	3.0e+05	1.8e+04	2.3e+07	
16 July	1.1e+05	1.8e+04	0.0e+00	
17 July	1.3e+05	1.8e+04	6.6e+07	
18 July	1.5e+05	1.8e+04	5.1e+07	
19 July	1.6e+05	1.8e+04	5.7e+07	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
13 July	8	2-2-2-2-2-2-3	10	1-2-2-3-3-2-2-3	9	2-2-2-1-2-2-2-4
14 July	10	2-2-2-2-4-2-2-2	9	3-2-2-4-1-0-2-2	7	2-2-2-2-1-2-2-2
15 July	11	0-3-3-3-2-3-2-1	20	0-4-4-4-5-2-1-1	13	3-4-3-3-3-2-1-1
16 July	0	2-3-1-2-2-0-0-0	0	2-4-2-3-4-0-0-0	7	2-3-2-2-2-1-1-2
17 July	4	0-1-0-2-2-2-2-0	3	0-1-1-1-2-2-1-0	4	1-1-1-1-1-1-1-1
18 July	4	1-1-0-1-2-2-2-1	3	2-2-1-0-2-0-1-0	5	2-1-1-1-1-1-1-1
19 July	4	1-0-1-1-2-2-2-1	1	0-1-1-1-0-0-0-0	3	1-1-1-1-1-1-1-1

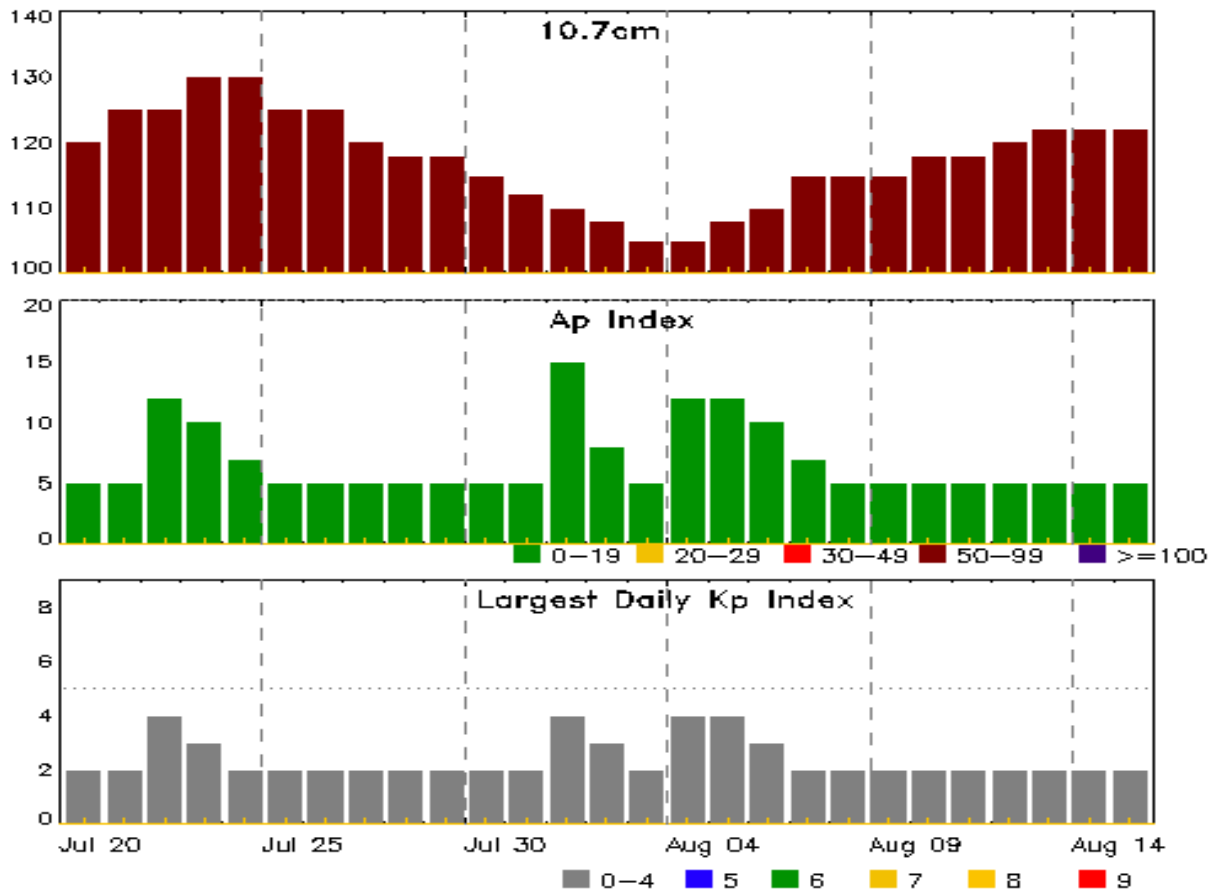


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
13 Jul 1027	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	10/1126
13 Jul 2350	WARNING: Geomagnetic K = 4	13/2349 - 14/0900
14 Jul 0008	ALERT: Geomagnetic K = 4	13/2359
15 Jul 0144	WARNING: Geomagnetic K = 4	15/0143 - 0600
15 Jul 0554	EXTENDED WARNING: Geomagnetic K = 4	15/0143 - 0900
15 Jul 0558	ALERT: Geomagnetic K = 4	15/0554
15 Jul 0853	EXTENDED WARNING: Geomagnetic K = 4	15/0143 - 1500
17 Jul 1822	ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	17/1750
18 Jul 1526	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	17/1750
19 Jul 1204	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	17/1750
19 Jul 2014	WATCH: Geomagnetic Storm Category G1 predicted	



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
20 Jul	120	5	2	03 Aug	105	5	2
21	125	5	2	04	105	12	4
22	125	12	4	05	108	12	4
23	130	10	3	06	110	10	3
24	130	7	2	07	115	7	2
25	125	5	2	08	115	5	2
26	125	5	2	09	115	5	2
27	120	5	2	10	118	5	2
28	118	5	2	11	118	5	2
29	118	5	2	12	120	5	2
30	115	5	2	13	122	5	2
31	112	5	2	14	122	5	2
01 Aug	110	15	4	15	122	5	2
02	108	8	3				

Energetic Events

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux		Intensity	
			Max						245	2695	II	IV

No Events Observed

Flare List

Date	Time			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
13 Jul	0833	0840	0842	B6.0			4489
13 Jul	1543	1555	1616	B7.8			4485
13 Jul	1733	1747	1800	C1.4			4485
13 Jul	1815	1822	1833	C1.3			4489
13 Jul	2245	2251	2254	B6.6			4485
14 Jul	0949	0956	0959	C1.5			4482
14 Jul	1218	1239	1300	C3.9			
15 Jul	0238	0312	0405	C1.2			4485
15 Jul	0831	0846	0854	C3.3	SF	S08E53	4489
15 Jul	1258	1302	1305	B4.4			
15 Jul	1803	1814	1824	C1.5	SN	S07E48	4489
15 Jul	2046	2155	2226	C8.9			4491
16 Jul	2119	2135	2138	C5.2			
16 Jul	2351	0002	0009	C1.5			
17 Jul	2025	2045	2114	B6.5			
18 Jul	0038	0120	0208	C2.2			
18 Jul	0338	0345	0353	B9.0			
18 Jul	0356	0405	0414	C2.3	SF	S07E14	4489
18 Jul	2139	2152	2203	C1.5			4492
19 Jul	1825	1845	1848	C1.3			
19 Jul	1848	1911	1924	C1.8			



Region Summary

	Location		Sunspot Characteristics					Flares								
		Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical					
Date	Lat	CMD	Lon	10 ⁻⁶ hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
Region 4481																
03 Jul	N14E62	329	30	1	Hsx	1	A									
04 Jul	N14E47	330	10	1	Axx	1	A									
05 Jul	N14E33	331	10	1	Axx	1	A									
06 Jul	N14E20	331	10	1	Axx	1	A									
07 Jul	N14E07	330	10	1	Axx	1	A									
08 Jul	N14W06	331	10	1	Axx	1	A									
09 Jul	N14W20	331	10	1	Axx	1	A									
10 Jul	N14W33	331	10	1	Axx	1	A									
11 Jul	N14W47	332	plage													
12 Jul	N14W61	333	plage													
13 Jul	N14W75	333	plage													
14 Jul	N14W89	334	plage													
									0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 331

Region 4482															
04 Jul	S08E77	300	20	2	Hsx	1	A	1		1					
05 Jul	S08E62	302	80	2	Cso	2	B								
06 Jul	S09E54	297	360	11	Eko	8	BG				1				
07 Jul	S09E40	296	410	12	Eki	12	BG		1			1			
08 Jul	S09E27	296	420	12	Eki	12	BGD	4	1		3	1			
09 Jul	S09E15	297	410	12	Eko	9	BG		1		1				
10 Jul	S09W00	298	410	10	Cko	8	B								
11 Jul	S08W12	297	330	9	Cko	6	B								
12 Jul	S08W29	300	330	5	Cho	6	B								
13 Jul	S09W43	301	340	5	Cko	5	B								
14 Jul	S09W57	302	280	4	Hhx	3	A	1							
15 Jul	S09W71	301	240	4	Hsx	2	A								
16 Jul	S09W82	301	150	4	Hsx	1	A								
								6	3	1	5	2	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 298



Region Summary - continued

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	4
Region 4485															
05 Jul	S09E13	351	10	2	Bxo	2	B								
06 Jul	S11W01	352	10	4	Bxo	2	B								
07 Jul	S11W15	351	40	6	Cso	7	B	1							
08 Jul	S10W28	352	100	6	Dso	15	BG				2				
09 Jul	S10W41	353	155	8	Dai	12	BG	1			7				
10 Jul	S10W55	353	175	9	Dai	12	BG	1				1			
11 Jul	S10W68	353	180	10	Dac	25	BG	3							
12 Jul	S10W82	354	170	11	Eac	18	BG	5	1		2				
13 Jul	S10W96	354	170	11	Eac	11	BG	1							
								12	1	0	11	1	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 352

Region 4487

08 Jul	N09E26	298	10	2	Bxo	2	B								
09 Jul	N09E13	299	15	4	Cro	3	B								
10 Jul	N09W01	299	10	4	Cro	1	B								
11 Jul	N09W14	299	20	6	Cao	8	B								
12 Jul	N09W28	300	10	5	Bxo	4	B								
13 Jul	N09W42	300	10	2	Bxo	2	B								
14 Jul	N08W54	299	10	1	Axx	1	A								
15 Jul	N08W68	300	plage												
16 Jul	N08W82	301	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 299

Region 4488

11 Jul	N23W13	298	10	3	Bxo	3	B								
12 Jul	N23W25	297	10	3	Bxo	2	B								
13 Jul	N23W39	297	plage												
14 Jul	N23W53	298	plage												
15 Jul	N23W67	299	plage												
16 Jul	N23W81	300	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 298



Region Summary - continued

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	4
Region 4489															
13 Jul	S07E65	193	80	3	Hsx	1	A	1							
14 Jul	S07E53	192	120	3	Hsx	2	A								
15 Jul	S07E39	190	160	6	Hsx	3	A	2			2				
16 Jul	S07E27	192	170	3	Hax	1	A								
17 Jul	S07E13	192	170	4	Cso	4	B								
18 Jul	S07W01	193	170	3	Hax	2	A	1			1				
19 Jul	S07W12	191	170	3	Cso	10	B								
								4	0	0	3	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 193

Region 4490															
16 Jul	N15E17	202	10	3	Bxo	4	B								
17 Jul	N15E03	202	plage												
18 Jul	N15W11	203	plage												
19 Jul	N15W25	204	plage												
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 202

Region 4491															
15 Jul	S11E79	154	plage					1							
16 Jul	S11E63	156	10	2	Axx	1	A								
17 Jul	S11E50	155	20	2	Hrx	2	A								
18 Jul	S11E36	156	10	1	Hrx	2	A								
19 Jul	S11E21	158	10	1	Axx	1	A								
								1	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 158

Region 4492															
18 Jul	N15E87	106	plage					1							
19 Jul	N15E73	106	230	6	Hax	3	A								
								1	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 106



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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