

Solar activity was very low throughout the period. New Region 2767 (S21, L=200, class/area Hsx/120 on 26 Jul) rotated onto the disk on 21 Jul, but was quiet and stable. A slow-moving, partial halo CME was detected in coronagraph imagery in the NE quadrant at about 19/1135 UTC. Subsequent model analysis indicated an Earth-directed component would likely become geoeffective on 24-25 Jul. No other 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 normal to moderate levels throughout the period.

Geomagnetic field activity was at quiet levels 20-23 Jul. Field conditions reached unsettled to active levels on 24-25 Jul due to effects from the 19 Jul CME. A return to quiet conditions was observed on 26 Jul. Solar wind parameters reflected enhanced conditions on 24-25 Jul as a result of CME effects. Solar wind speeds increased from approximately 300 km/s to near 415 km/s. Total field peaked at 11 nT while the Bz component dropped south to -10 nT. Density levels increased to 28 particles/cc. Ambient solar wind parameters were present on 20-23 Jul and 26 Jul.

Space Weather Outlook
27 July - 22 August 2020

Solar activity is expected to be very low throughout 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 normal to moderate levels throughout the outlook period.

Geomagnetic field activity is expected to be quiet to unsettled on 28-29 Jul due to a negative polarity CH HSS. Quiet conditions are expected to prevail throughout the rest 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
20 July	69	0	0	A0.0	0	0	0	0	0	0	0	0
21 July	70	11	80	A1.2	0	0	0	0	0	0	0	0
22 July	70	11	120	A1.0	0	0	0	0	0	0	0	0
23 July	70	11	120	A1.0	0	0	0	0	0	0	0	0
24 July	70	11	120	A1.0	0	0	0	0	0	0	0	0
25 July	70	11	120	A0.0	0	0	0	0	0	0	0	0
26 July	71	11	120	A2.0	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	
	20 July	6.3e+04	4.6e+04	4.8e+06
21 July	7.0e+04	4.6e+04	4.8e+06	
22 July	7.5e+04	4.6e+04	5.0e+06	
23 July	8.8e+04	4.6e+04	4.3e+06	
24 July	1.3e+05	4.6e+04	1.5e+06	
25 July	5.5e+04	4.6e+04	3.8e+06	
26 July	5.5e+04	4.7e+04	5.0e+06	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	20 July	3	1-1-0-0-2-1-1-1	2	1-1-1-0-0-0-1-0	4
21 July	5	1-1-2-1-2-2-1-1	2	1-1-1-0-0-0-0-1	4	1-1-1-1-1-1-0-1
22 July	5	1-1-0-2-2-2-2-1	2	1-1-1-1-0-1-1-0	3	1-1-1-1-1-1-1-1
23 July	4	0-1-1-2-2-1-1-1	1	0-0-0-1-0-0-0-1	4	1-1-1-1-2-1-0-1
24 July	0	2-3-2-2-3-3-0-0	0	1-3-4-4-4-6-0-0	11	1-3-3-2-2-3-2-3
25 July	27	0-0-0-0-0-0-0-4	15	0-0-0-0-0-0-0-3	15	4-3-3-2-2-2-2-4
26 July	3	2-0-0-1-2-1-1-1	1	1-1-0-0-1-0-0-0	6	2-1-0-1-1-0-0-1

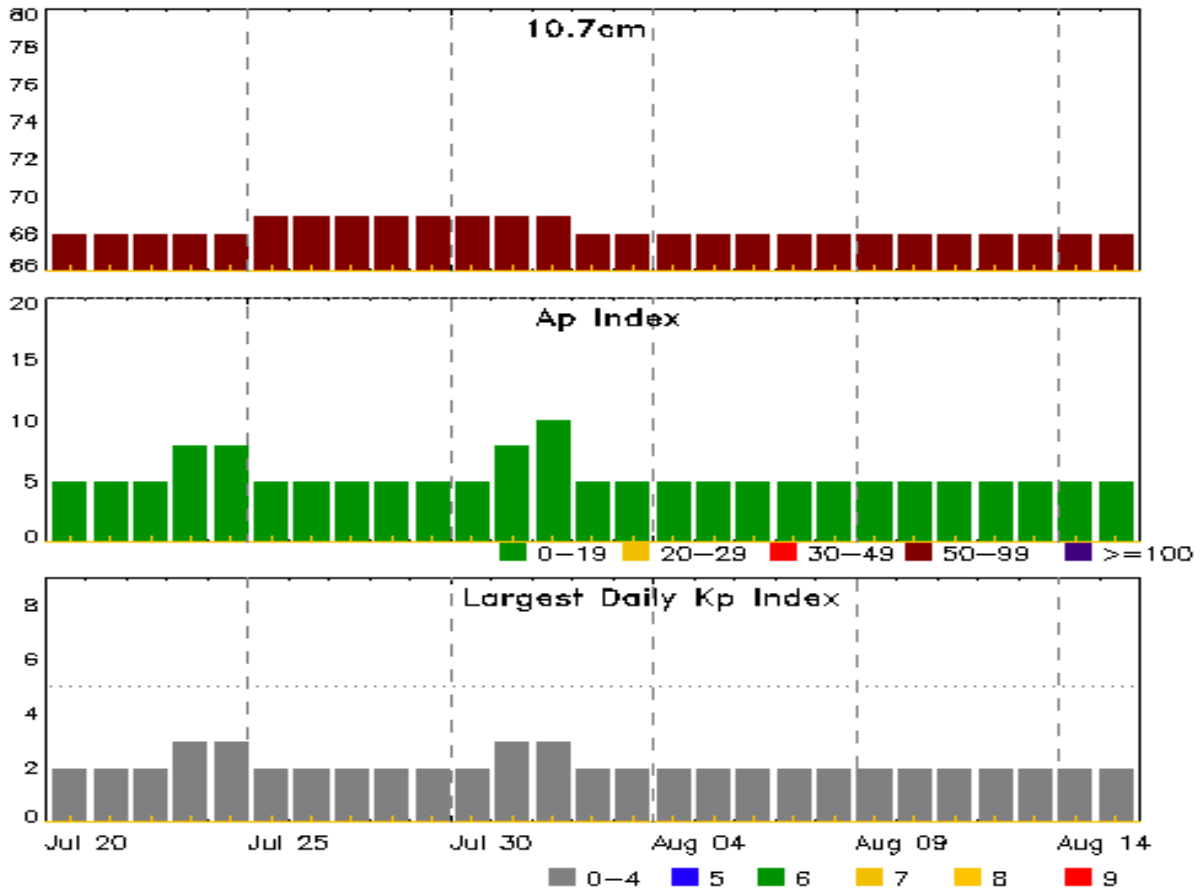


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
24 Jul 1642	WARNING: Geomagnetic K = 4	24/1640 - 2100
24 Jul 2210	WARNING: Geomagnetic K = 4	24/2210 - 25/0900
25 Jul 0128	ALERT: Geomagnetic K = 4	25/0120
25 Jul 2256	WARNING: Geomagnetic K = 4	25/2256 - 26/0600
25 Jul 2259	ALERT: Geomagnetic K = 4	25/2258



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
27 Jul	71	5	2	10 Aug	68	5	2
28	71	8	3	11	68	5	2
29	70	8	3	12	68	5	2
30	70	5	2	13	68	5	2
31	70	5	2	14	68	5	2
01 Aug	70	5	2	15	68	5	2
02	69	5	2	16	68	5	2
03	68	5	2	17	68	5	2
04	68	5	2	18	68	5	2
05	68	5	2	19	68	5	2
06	68	5	2	20	68	5	2
07	68	5	2	21	68	5	2
08	68	5	2	22	68	5	2
09	68	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	Optical			Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD		

No Flares Observed



Region Summary

Date	Location		Sunspot Characteristics				Flares										
	Lat CMD	Lon	Area 10 ⁻⁶ hemi.	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
								C	M	X	S	1	2	3	4		
<i>Region 2767</i>																	
21 Jul	S22E72	197	80	1	Hsx	1	A										
22 Jul	S22E58	200	120	1	Hsx	1	A										
23 Jul	S22E44	200	120	3	Hsx	1	A										
24 Jul	S21E31	200	120	3	Hsx	1	A										
25 Jul	S21E18	200	120	3	Hsx	1	A										
26 Jul	S21E05	200	120	3	Hsx	1	A										
								0	0	0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 200



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

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