Space Weather Highlights
09 August - 15 August 2021

SWPC PRF 2398
16 August 2021

Solar activity was low. An isolated C1 flare was observed at 13/2108 UTC from Region 2853 (N22, L=199, class/area, Axx/010 on 14 Aug). No Earth-directed CMEs were observed in available imagery.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached moderate levels throughout the reporting period.

Geomagnetic field activity ranged from quiet to unsettled levels throughout the reporting period due to CH HSS influence.

Space Weather Outlook
16 August - 11 September 2021

Solar activity is expected to be very low with a chance for C-class flare activity.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to reach moderate levels throughout the outlook period.

Geomagnetic field activity is expected to reach active levels on 24 Aug and 03 Sep with unsettled levels on 16-17, 23-25 Aug and 02-03, 11 Sep due to recurrent CH HSS activity. Quiet levels are expected throughout 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
09 August	73	0	0	A4.8	0	0	0	3	0	0	0	0
10 August	73	0	0	A3.7	0	0	0	0	0	0	0	0
11 August	74	22	20	A4.4	0	0	0	0	0	0	0	0
12 August	74	11	10	A4.6	0	0	0	0	0	0	0	0
13 August	73	0	0	A3.7	1	0	0	0	0	0	0	0
14 August	73	47	40	A3.8	0	0	0	0	0	0	0	0
15 August	75	23	20	A3.5	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
09 August	6.4e+04	4.5e+04	1.9e+06
10 August	6.3e+04	4.5e+04	1.6e+06
11 August	8.4e+04	4.4e+04	1.5e+06
12 August	9.5e+04	4.5e+04	1.8e+06
13 August	8.9e+04	4.5e+04	1.7e+06
14 August	6.2e+04	4.6e+04	2.2e+06
15 August	5.9e+04	4.6e+04	1.7e+06

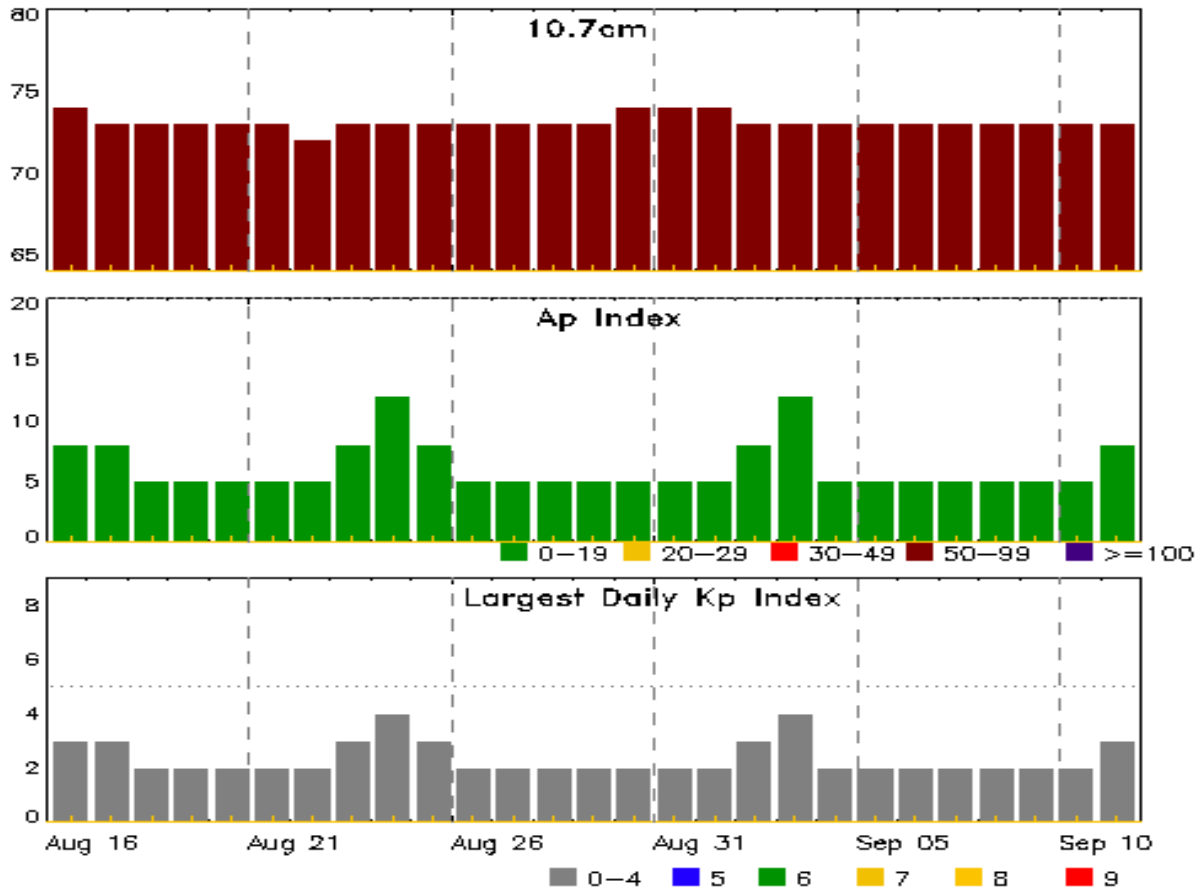
Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
09 August	6	1-1-3-2-2-1-1-1	4	0-0-3-2-1-0-1-0	5	1-1-2-2-1-0-1-1
10 August	9	2-2-1-2-4-1-2-2	8	2-2-1-0-4-2-2-1	7	2-2-2-2-3-1-1-2
11 August	7	2-3-2-1-2-2-1-1	4	2-2-2-2-1-0-0-0	6	3-2-2-1-1-1-1-1
12 August	6	0-1-1-2-3-2-1-2	1	0-1-0-0-0-1-0-1	4	1-1-1-1-1-1-1-2
13 August	9	2-2-3-3-3-2-1-1	9	2-1-2-5-0-1-0-0	6	2-2-2-3-1-1-1-1
14 August	4	1-1-1-2-2-1-1-1	3	1-0-2-2-0-1-0-0	5	1-1-2-1-1-1-1-1
15 August	13	2-3-4-2-3-2-2-3	16	2-1-4-5-3-2-1-3	12	3-2-3-2-2-2-2-3

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
15 Aug 0759	WARNING: Geomagnetic K = 4	15/0800 - 1200

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
16 Aug	74	8	3	30 Aug	74	5	2
17	73	8	3	31	74	5	2
18	73	5	2	01 Sep	74	5	2
19	73	5	2	02	73	8	3
20	73	5	2	03	73	12	4
21	73	5	2	04	73	5	2
22	72	5	2	05	73	5	2
23	73	8	3	06	73	5	2
24	73	12	4	07	73	5	2
25	73	8	3	08	73	5	2
26	73	5	2	09	73	5	2
27	73	5	2	10	73	5	2
28	73	5	2	11	73	8	3
29	73	5	2				

Energetic Events

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

No Events Observed

Flare List

	Time				Optical		
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
09 Aug	0004	0032	0049		SF	N23E63	2853
09 Aug	0113	0122	0130	B1.8			2853
09 Aug	0147	0157	0201	B1.6			2853
09 Aug	0205	0208	0212	B1.9			2853
09 Aug	0341	0349	0403	B1.0			2853
09 Aug	0552	0603	0613	B1.3			2853
09 Aug	1351	1405	1420	B1.5			2853
09 Aug	1550	1559	1603	B1.6			2853
09 Aug	1802	1802	1809		SF	N23E55	2853
09 Aug	1813	1820	1824	B3.0	SF	N23E55	2853
13 Aug	1614	1623	1629	B1.2			2853
13 Aug	2059	2108	2112	C1.4			2853

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 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												
09 Aug	N15W63	305	plage												
10 Aug	N15W77	306	plage												
								0	0	0	1	0	0	0	0

Died 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												
09 Aug	S11W14	256	plage												
10 Aug	S11W28	257	plage												
11 Aug	S11W42	258	plage												
12 Aug	S11W56	259	plage												
13 Aug	S11W70	259	plage												
14 Aug	S11W84	260	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 255

		Region 2853													
08 Aug	N23E63	192	10	1	Axx	1	A	1			5				
09 Aug	N23E48	194	plage								3				
10 Aug	N23E34	195	plage												
11 Aug	N23E20	196	plage												
12 Aug	N23E06	197	plage												
13 Aug	N23W08	197	plage					1							
14 Aug	N22W23	199	10	5	Axx	1	A								
15 Aug	N22W36	199	plage												
								2	0	0	8	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 197

Region Summary - continued

	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 2854												
11 Aug	S21W33	249	10		Axx	1	A								
12 Aug	S21W47	250	plage												
13 Aug	S22W60	249	plage												
14 Aug	S22W74	250	plage												
15 Aug	S22W88	251	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 249

			Region 2855												
11 Aug	N13E61	155	10		Axx	1	A								
12 Aug	N13E47	156	10	1	Axx	1	A								
13 Aug	N13E33	156	plage												
14 Aug	N13E22	154	10	1	Axx	1	A								
15 Aug	N13E08	155	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 155

			Region 2856												
14 Aug	N14W61	237	10	2	Bxo	3	B								
15 Aug	N14W74	237	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 237

			Region 2857												
14 Aug	N18W00	175	10	2	Bxo	2	B								
15 Aug	N18W14	177	10	4	Bxo	2	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 175

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 -- User Guide