

Space Weather Highlights
04 January - 10 January 2021

SWPC PRF 2367
11 January 2021

Solar activity was very low with no spotted groups on the visible disk.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels for the highlight period.

Geomagnetic field activity reached active levels on 05-06 Jan due to recurrent coronal hole high speed stream influences (CH HSS). Quiet to unsettled levels were observed during the remainder of the highlight period.

Space Weather Outlook
11 January - 06 February 2021

Solar activity is expected to be at very low levels during the outlook 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 20-22 Jan due to recurrent CH HSS influences. The remainder of the outlook period is expected to be at normal to moderate levels.

Geomagnetic field activity is expected to reach active levels on 17-20 Jan and 01-02 Feb due to recurrent CH HSS influences. Unsettled levels are expected on 11 Jan and 25-26 Jan. 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	
04 January	78	0	0	A2.7	0	0	0	0	0	0	0	0	0
05 January	75	0	0	A2.0	0	0	0	0	0	0	0	0	0
06 January	74	0	0	A0.0	0	0	0	0	0	0	0	0	0
07 January	75	0	0	A1.0	0	0	0	0	0	0	0	0	0
08 January	75	0	0	A1.4	0	0	0	0	0	0	0	0	0
09 January	74	0	0	A1.2	0	0	0	0	0	0	0	0	0
10 January	73	0	0	A0.0	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	
	04 January	1.9e+05	4.5e+04	8.3e+06
05 January	5.4e+06	4.5e+04	5.4e+06	
06 January	1.7e+05	4.4e+04	1.3e+06	
07 January	8.8e+04	4.5e+04	1.6e+06	
08 January	1.8e+05	4.5e+04	2.3e+06	
09 January	1.7e+05	4.5e+04	2.3e+06	
10 January	4.5e+05	4.4e+04	2.5e+06	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	04 January	3	0-0-1-1-2-2-1-1	2	0-0-2-2-0-0-0-0	3
05 January	9	1-0-1-0-4-3-2-3	14	0-0-0-0-6-4-1-1	11	2-1-1-1-4-3-2-3
06 January	9	3-2-4-2-2-1-1-0	16	2-3-4-4-4-3-2-0	11	3-3-4-2-2-1-1-1
07 January	4	1-2-1-0-1-1-1-2	3	1-1-1-2-1-0-0-1	6	1-2-1-1-1-1-1-3
08 January	1	0-0-0-0-1-1-1-0	0	1-0-0-0-0-0-0-0	2	1-0-0-0-1-0-0-0
09 January	2	1-1-0-1-1-1-0-0	0	0-0-0-0-0-0-0-0	3	1-1-1-1-0-0-0-0
10 January	3	0-1-1-1-1-2-1-0	1	0-0-0-1-1-0-0-0	3	1-1-1-0-0-1-1-1

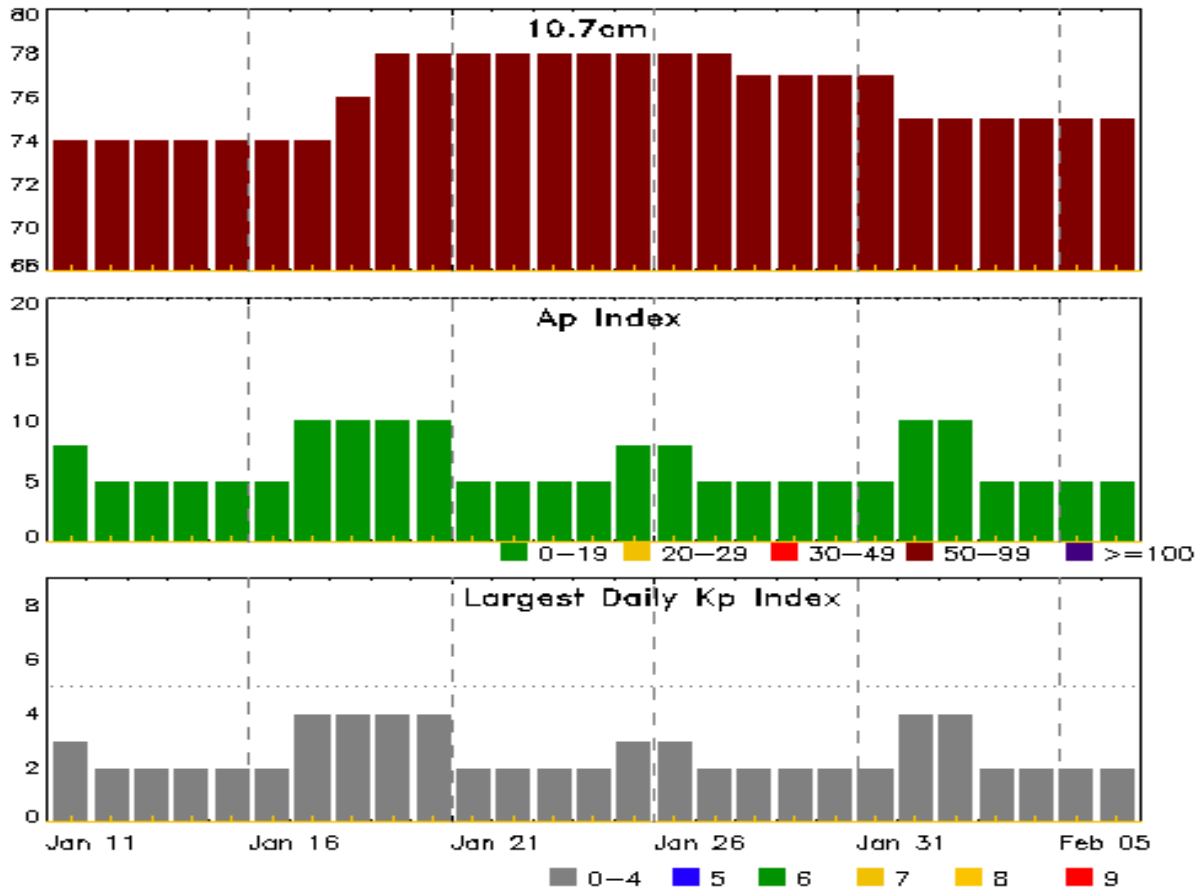


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
05 Jan 1338	WARNING: Geomagnetic K = 4	05/1339 - 06/0300
05 Jan 1356	ALERT: Geomagnetic K = 4	05/1348
05 Jan 1414	WARNING: Geomagnetic K = 5	05/1414 - 1800
06 Jan 0529	WARNING: Geomagnetic K = 4	06/0530 - 1200
06 Jan 0802	ALERT: Geomagnetic K = 4	06/0801



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
11 Jan	74	8	3	25 Jan	78	8	3
12	74	5	2	26	78	8	3
13	74	5	2	27	78	5	2
14	74	5	2	28	77	5	2
15	74	5	2	29	77	5	2
16	74	5	2	30	77	5	2
17	74	10	4	31	77	5	2
18	76	10	4	01 Feb	75	10	4
19	78	10	4	02	75	10	4
20	78	10	4	03	75	5	2
21	78	5	2	04	75	5	2
22	78	5	2	05	75	5	2
23	78	5	2	06	75	5	2
24	78	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		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
10 Jan	B1830	U1831	A1832	A1.0			



Region Summary

Date	Location		Sunspot Characteristics				Flares									
	Lat	CMD	Helio	Area	Extent	Spot	Spot	Mag	X-ray			Optical				
			Lon	10 ⁻⁶ hemi.	(helio)	Class	Count	Class	C	M	X	S	1	2	3	4
Region 2795																
23 Dec	S17E67	319	40	9	Cro	6	B									
24 Dec	S18E54	318	200	9	Dao	4	B									
25 Dec	S17E41	318	180	10	Dao	9	B									
26 Dec	S17E29	317	180	9	Dao	10	B									
27 Dec	S17E15	318	150	9	Dso	5	B									
28 Dec	S17E02	318	120	9	Dao	5	B									
29 Dec	S19W10	317	130	10	Cao	5	B					1				
30 Dec	S18W25	318	40	10	Cro	5	B									
31 Dec	S18W38	316	30	10	Bxo	4	B									
01 Jan	S17W51	318	10	7	Bxo	2	B									
02 Jan	S18W68	321	0		Axx	1	A									
03 Jan	S18W81	321	plage													
04 Jan	S18W95	322	plage													
									0	0	0	1	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 318



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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