

**Space Weather Highlights**  
**07 September - 13 September 2020**

**SWPC PRF 2350**  
**14 September 2020**

Solar activity was very low throughout the reporting period. No spotted regions were observed on the visible disk and no Earth-directed CMEs were observed in available coronagraph imagery.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was normal to high levels throughout the reporting period. GOES-16 peak flux reached 10,200 pfu at 07/1600 UTC.

Geomagnetic field activity was quiet to unsettled under a mostly nominal solar wind regime.

**Space Weather Outlook**  
**14 September - 10 October 2020**

Solar activity is expected to be at very low levels for 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 on 14 - 25 Sep and at high levels, following CH HSS activity, from 26 Sep - 10 Oct.

Geomagnetic field activity is likely to range from quiet to G1 (Minor) geomagnetic storm levels. G1 levels are likely on 27 Sep; active levels are likely on 25-26 Sep and 28 Sep; unsettled levels are likely on 23-24 Sep and 29 Sep. All elevated levels of geomagnetic activity are in response to anticipated CH HSS influence. The remainder of the outlook period is expected to observe quiet conditions.



### *Daily Solar Data*

Date	Radio Flux 10.7cm	Sun spot No.	Sunspot Area (10 <sup>-6</sup> hemi.)	X-ray Background Flux	Flares								
					X-ray			Optical					
					C	M	X	S	1	2	3	4	
07 September	70	0	0	A1.1	0	0	0	0	0	0	0	0	0
08 September	70	0	0	A1.1	0	0	0	0	0	0	0	0	0
09 September	70	0	0	A0.0	0	0	0	0	0	0	0	0	0
10 September	69	0	0	A0.0	0	0	0	0	0	0	0	0	0
11 September	69	0	0	A0.0	0	0	0	0	0	0	0	0	0
12 September	69	0	0	A0.0	0	0	0	0	0	0	0	0	0
13 September	70	0	0	A0.0	0	0	0	0	0	0	0	0	0

### *Daily Particle Data*

Date	Proton Fluence (protons/cm <sup>2</sup> -day -sr)		Electron Fluence (electrons/cm <sup>2</sup> -day -sr)
	>1 MeV	>10 MeV	>2MeV
	07 September	6.5e+04	4.7e+04
08 September	8.4e+04	4.8e+04	2.9e+08
09 September	1.0e+05	4.7e+04	1.5e+08
10 September	1.5e+05	4.7e+04	1.2e+08
11 September	1.7e+05	4.6e+04	1.3e+08
12 September	1.4e+05	4.7e+04	3.6e+07
13 September	2.8e+05	4.7e+04	5.2e+07

### *Daily Geomagnetic Data*

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	07 September	5	1-1-2-1-2-2-1-1	7	1-1-3-3-3-1-0-0	4
08 September	4	1-0-1-2-2-2-1-0	2	0-0-1-1-1-1-1-0	4	1-1-1-1-1-1-1-0
09 September	1	1-0-0-0-1-1-0-0	0	0-0-0-0-0-0-0-0	1	1-0-0-0-0-0-0-0
10 September	2	0-0-1-1-1-1-1-1	0	0-0-0-0-0-0-0-0	2	0-0-0-0-0-0-1-1
11 September	2	0-0-1-1-0-1-1-1	2	0-0-1-2-0-0-1-0	3	1-0-1-0-0-1-1-1
12 September	6	2-2-3-2-1-2-1-0	8	0-0-5-3-0-0-0-0	5	2-2-3-2-0-1-1-1
13 September	7	2-2-1-1-1-2-2-3	4	0-0-3-1-0-0-1-2	5	1-2-2-1-0-2-1-3

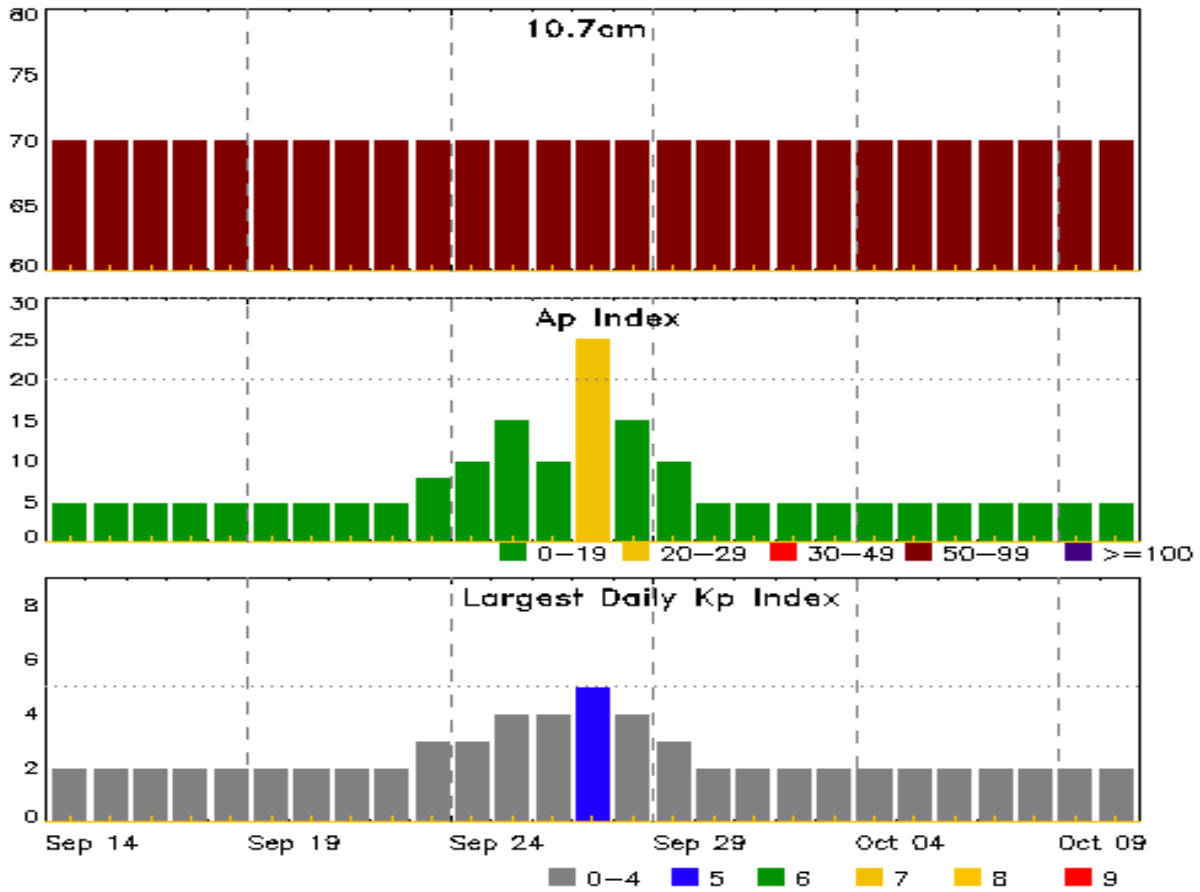


### *Alerts and Warnings Issued*

<b>Date &amp; Time of Issue UTC</b>	<b>Type of Alert or Warning</b>	<b>Date &amp; Time of Event UTC</b>
07 Sep 0500	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/1325
08 Sep 0533	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/1325
09 Sep 0947	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/1325
10 Sep 0929	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/1325
11 Sep 0919	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/1325
12 Sep 1517	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/1325
13 Sep 1436	CONTINUED ALERT: Electron 2MeV Integral Flux $\geq$ 1000pfu	30/1325



## 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
14 Sep	70	5	2	28 Sep	70	15	4
15	70	5	2	29	70	10	3
16	70	5	2	30	70	5	2
17	70	5	2	01 Oct	70	5	2
18	70	5	2	02	70	5	2
19	70	5	2	03	70	5	2
20	70	5	2	04	70	5	2
21	70	5	2	05	70	5	2
22	70	5	2	06	70	5	2
23	70	8	3	07	70	5	2
24	70	10	3	08	70	5	2
25	70	15	4	09	70	5	2
26	70	10	4	10	70	5	2
27	70	25	5				



### ***Energetic Events***

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

**No Events Observed**

### ***Flare List***

Date	Time			X-ray Class	Optical		
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	Rgn #
08 Sep	0559	0601	0602	A8.0			



### *Region Summary*

Location		Sunspot Characteristics					Flares							
Date	Lat CMD	Helio Lon	Area 10 <sup>-6</sup>	Extent hemi.	Spot (helio) Class	Spot Count	Mag Class	X-ray			Optical			
							C	M	X	S	1	2	3	4

No Active Regions



## ***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

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> --

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