Space Weather Highlights
14 October - 20 October 2024

SWPC PRF 2564
21 October 2024

Solar activity reached moderate levels (R1-Minor) on 14-28 Oct. High levels were reached on 19 Oct with the largest event of the reporting period, an M6.5 flare (R2-Moderate) at 19/0656 UTC from Region 3854 (S05, L=045, class/area=Eki/340 on 15 Oct) as it rotated around the W limb. Associated with this event was a Type II radio sweep. After the departure of Region 3854 from the visible disk, solar activity decreased to low levels.

Other activity included an M2.1/Sn (R1) flare at 15/1833 UTC from Region 3854. Associated with the event was a Type II radio sweep. A subsequent CME was observed with the potential for the periphery to pass by Earth around 18-19 Oct. Around the same time, an additional Type II and Type IV radio sweep was observed but was associated with activity from Region 3848 (S07, L=091, class/area=Dki/310 on 08 Oct) which had already rotated to the Sun's farside. No other CMEs in available coronagraph imagery were determined to be Earth-directed.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal background to moderate levels throughout the reporting period.

Geomagnetic field activity ranged from quiet to G1 (Minor) geomagnetic storm levels. G1 storm levels were reached early on 19 Oct during the onset of positive polarity CH HSS, with a possible embedded transient influence from a weak CME that left the Sun on 15 Oct. Active levels were observed on 14 Oct and 18 Oct. The remainder of the reporting period was at quiet to unsettled levels.

Space Weather Outlook
21 October - 16 November 2024

Solar activity is expected to be at low levels, with a chance for moderate levels (R1/R2-Minor/Moderate) 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 background to moderate levels.

Geomagnetic field activity is likely to reach active levels on 21 Oct, 11-12 Nov, and 15 Nov. Unsettled levels are likely on 23-24 Oct, 13 Nov, and 16 Nov. All increases in geomagnetic activity are due to anticipated, recurrent CH HSSs. To remainder of the outlook period is expected to be at mostly quiet levels.

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
14 October	182	146	1380	C1.4	9	2	0	8	0	0	0	0
15 October	172	141	1290	C1.7	17	5	0	14	4	1	0	0
16 October	168	135	900	C1.4	13	6	0	16	3	0	0	0
17 October	174	146	1020	C1.5	8	2	0	1	0	0	0	0
18 October	165	132	820	C1.3	9	3	0	3	0	0	0	0
19 October	162	101	570	C1.4	7	2	0	0	0	0	0	0
20 October	162	113	610	C2.4	3	0	0	2	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
14 October	8.9e+06	1.5e+04	2.3e+07
15 October	2.1e+06	1.5e+04	9.2e+06
16 October	7.5e+05	1.5e+04	1.6e+07
17 October	1.9e+05	1.4e+04	1.3e+07
18 October	3.6e+05	1.4e+04	1.3e+07
19 October	2.9e+05	1.4e+04	2.1e+06
20 October	7.8e+04	1.4e+04	3.4e+06

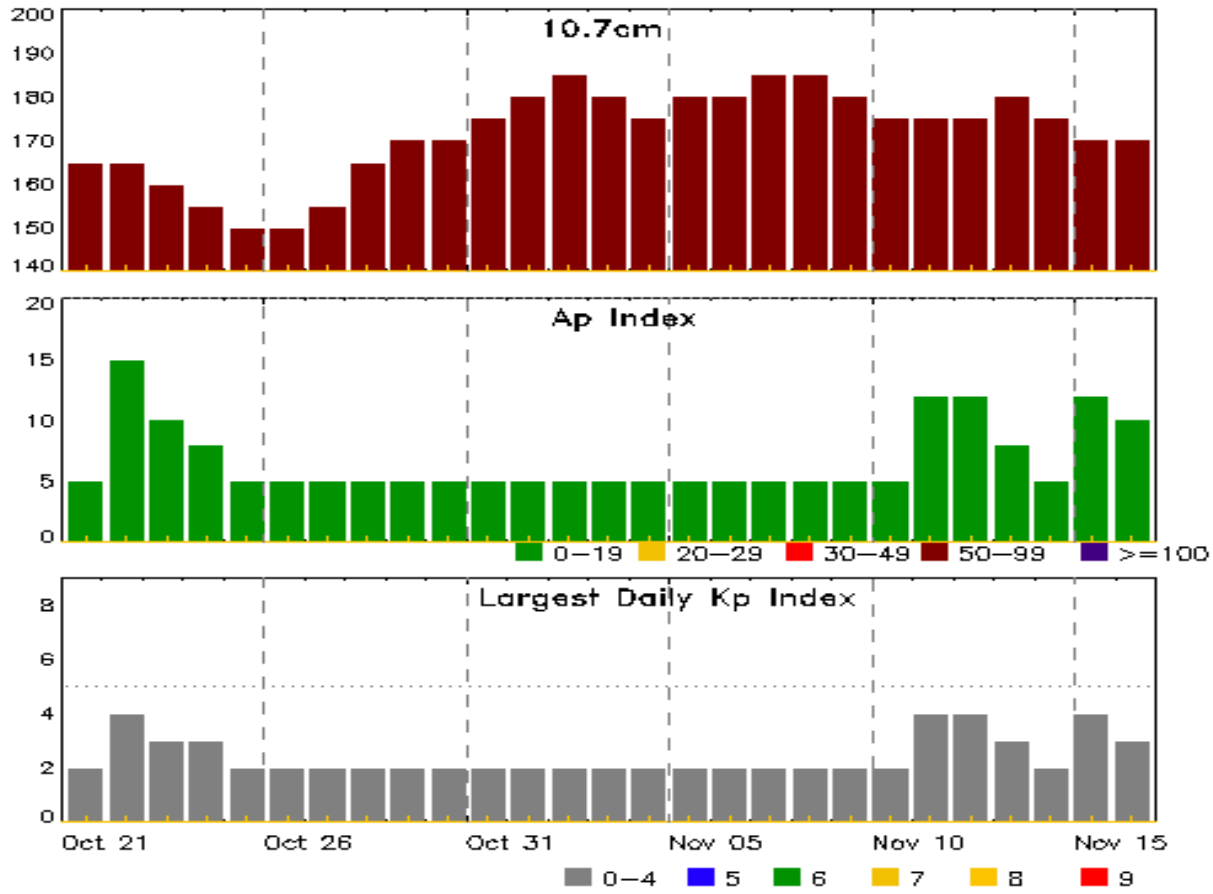
Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
14 October	6	1-1-1-1-2-1-2-3	6	1-0-3-2-2-1-1-2	8	1-1-2-1-1-1-2-4
15 October	9	2-2-2-2-4-2-2-1	27	2-2-6-4-5-4-3-2	15	3-3-4-3-3-3-2-2
16 October	11	2-2-3-2-3-3-3-2	31	1-2-6-5-5-5-2-2	15	2-3-3-3-3-3-3-3
17 October	7	3-2-2-2-2-1-1-1	10	2-4-4-1-1-2-1-1	9	3-3-2-2-1-1-2-2
18 October	10	2-3-1-2-3-2-2-3	19	2-2-1-4-5-4-3-3	14	3-3-1-2-3-3-3-4
19 October	15	3-3-3-3-4-2-2-3	36	5-4-6-5-5-3-3-2	23	5-4-4-3-3-2-4-4
20 October	6	2-2-2-1-2-2-1-2	6	2-2-2-3-2-1-0-0	15	3-2-2-1-1-1-1-2

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
14 Oct 0032	ALERT: Type II Radio Emission	14/0014
14 Oct 2237	WARNING: Geomagnetic K = 4	14/2237 - 15/0600
14 Oct 2246	ALERT: Geomagnetic K = 4	
15 Oct 0759	WARNING: Geomagnetic K = 4	15/0800 - 1500
15 Oct 0838	ALERT: Geomagnetic K = 4	
15 Oct 1419	EXTENDED WARNING: Geomagnetic K = 4	15/0800 - 2359
15 Oct 1939	ALERT: Type II Radio Emission	15/1808
15 Oct 1940	ALERT: Type II Radio Emission	15/1832
15 Oct 1941	ALERT: Type IV Radio Emission	15/1817
15 Oct 2354	EXTENDED WARNING: Geomagnetic K = 4	15/0800 - 16/0900
16 Oct 0857	EXTENDED WARNING: Geomagnetic K = 4	15/0800 - 16/1500
16 Oct 1729	WARNING: Geomagnetic K = 4	16/1728 - 2359
18 Oct 0400	WARNING: Geomagnetic K = 4	18/0400 - 0900
18 Oct 2157	WARNING: Geomagnetic K = 4	18/2157 - 19/1200
18 Oct 2158	ALERT: Geomagnetic K = 4	
18 Oct 2348	ALERT: Type II Radio Emission	18/2329
19 Oct 0242	WARNING: Geomagnetic K = 5	19/0242 - 0900
19 Oct 0252	ALERT: Geomagnetic K = 5	
19 Oct 0658	ALERT: X-ray Flux exceeded M5	19/0654
19 Oct 0721	SUMMARY: X-ray Event exceeded M5	19/0648 - 0703
19 Oct 1130	EXTENDED WARNING: Geomagnetic K = 4	18/2157 - 19/1800
19 Oct 1746	EXTENDED WARNING: Geomagnetic K = 4	18/2157 - 20/0600
19 Oct 2040	ALERT: Geomagnetic K = 4	

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
21 Oct	165	5	2	04 Nov	175	5	2
22	165	15	4	05	180	5	2
23	160	10	3	06	180	5	2
24	155	8	3	07	185	5	2
25	150	5	2	08	185	5	2
26	150	5	2	09	180	5	2
27	155	5	2	10	175	5	2
28	165	5	2	11	175	12	4
29	170	5	2	12	175	12	4
30	170	5	2	13	180	8	3
31	175	5	2	14	175	5	2
01 Nov	180	5	2	15	170	12	4
02	185	5	2	16	170	10	3
03	180	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
14 Oct	0004	0017	0031	M3.4	0.001	SF	N10W78	3848	490		3	
14 Oct	1322	1337	1350	M1.8	0.017			3848	140			
15 Oct	0202	0213	0223	M1.9	0.004	1F	S11W23	3852	1000			
15 Oct	0223	0227	0231	M1.1	0.006			3852				
15 Oct	1000	1006	1010	M1.3	0.002	1N	S07W30	3852	770			
15 Oct	1800	1818	1828	M1.7	0.017			3848			2	1
15 Oct	1828	1833	1838	M2.1	0.010	SN	S04W35	3854	17000	110	2	
16 Oct	0312	0319	0338	M3.0	0.036			3852	230			
16 Oct	0338	0346	0359	M3.7	0.038			3852				
16 Oct	0457	0515	0529	M2.8	0.001	1N	S12W35	3852				
16 Oct	1312	1327	1338	M1.5	0.001	1B	S09W44	3852				
16 Oct	1429	1442	1451	M1.3	0.004	1N	S09W43	3852				
16 Oct	1451	1500	1504	M1.3	0.011			3852				
17 Oct	0212	0222	0238	M1.0	0.010			3856	100			
17 Oct	0453	0505	0513	M2.4	0.002	SF	S10W53	3852		160		
18 Oct	1728	1736	1741	M1.1	0.005			3854				
18 Oct	1927	1938	1943	M4.8	0.019	SN	S06W76	3854				
18 Oct	2313	2328	2338	M4.7	0.029	SF	S11W80	3852			1	
19 Oct	0648	0656	0703	M6.5	0.032			3854				
19 Oct	1427	1434	1440	M1.7	0.006			3854				

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
14 Oct	0004	0017	0031	M3.4	SF	N10W78	3848
14 Oct	0314	0318	0327	C2.3			3848
14 Oct	0409	0415	0420	C3.0			3848
14 Oct	0641	0649	0656	C2.5			3848
14 Oct	0657	0705	0711	C3.6			3848
14 Oct	1322	1337	1350	M1.8			3848
14 Oct	1356	U1358	1403		SF	S07W17	3852
14 Oct	1754	1800	1806	C2.9	SF	N09E25	3856
14 Oct	1911	1919	1924	C2.1	SF	S07W22	3854
14 Oct	2030	2040	2051	C2.6	SF	S09W21	3854
14 Oct	2148	2151	2210		SF	S07W23	3854

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
14 Oct	2243	2253	2259	C2.9	SF	S09W22	3854
14 Oct	2248	2303	2346		SF	S12W25	3852
14 Oct	2259	2305	2312	C5.3			3854
15 Oct	0132	0139	0144	C2.6			3854
15 Oct	0202	0213	0223	M1.9	1F	S11W23	3852
15 Oct	0223	0227	0231	M1.1			3852
15 Oct	0349	0403	0414	C4.5	SF	S10W24	3852
15 Oct	0430	0452	0516	C8.6	SF	S10W26	3852
15 Oct	0530	0538	0550	C5.8	2F	S10W24	3852
15 Oct	0644	0702	0708	C5.5	SF	S10W26	3852
15 Oct	0832	0835	0838	C2.6			3852
15 Oct	B0834	U0846	A0858		SF	S07W27	3852
15 Oct	0834	0836	0838		SF	S11W28	3852
15 Oct	0838	0842	0849	C3.9			3852
15 Oct	B0930	U0940	A0958		SF	S09W27	3852
15 Oct	1000	1006	1010	M1.3	1N	S07W30	3852
15 Oct	B1021	U1124	A1209	C4.6	SF	S09W27	3852
15 Oct	1145	1152	1200	C5.7			3852
15 Oct	B1213	U1213	A1238		SF	S08W29	3852
15 Oct	1243	1248	1252	C3.0			3852
15 Oct	1256	1304	1311	C3.9			3852
15 Oct	B1331	U1342	A1442		1F	S10W29	3852
15 Oct	1502	1513	1526	C3.5	1F	S10W32	3852
15 Oct	1624	1632	1649	C2.6	SF	S09W30	3852
15 Oct	1800	1818	1828	M1.7			3848
15 Oct	1828	1833	1838	M2.1	SN	S04W35	3854
15 Oct	1909	1925	1927		SF	S06W33	3854
15 Oct	1949	1953	1958	C4.0	SF	S06W37	3854
15 Oct	2106	2129	2131		SF	S07W35	3854
15 Oct	2219	2223	2236	C2.7	SF	N11E05	3856
15 Oct	2257	2307	2309	C6.7			3852
15 Oct	2309	2316	2323	C9.4			3852
16 Oct	0018	0024	0034	C4.0	SF	N11E04	3856
16 Oct	0029	0036	0037		SF	S10W37	3852
16 Oct	0137	0142	0147	C4.0			3852
16 Oct	0147	0158	0203	C5.0	SF	S11W35	3852
16 Oct	0239	0248	0259	C4.5	SF	S14W34	3852
16 Oct	0312	0319	0338	M3.0			3852

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
16 Oct	0338	0346	0359	M3.7			3852
16 Oct	0457	0515	0529	M2.8	1N	S12W35	3852
16 Oct	B0607	U0624	A0633		SF	S09W35	3852
16 Oct	0705	U0705	0709		SF	N09E03	3856
16 Oct	0735	0745	0754	C4.6	SF	S10W41	3852
16 Oct	0914	0920	0926	C1.9	SF	S10W44	3852
16 Oct	1052	1059	1105	C2.1	SF	N09W01	3856
16 Oct	1105	1110	1114	C2.5	SF	S04W42	3854
16 Oct	1258	1300	1302		SF	S08W44	3852
16 Oct	1303	1305	1310		SF	S08W44	3852
16 Oct	1308	1310	1313		SF	S05W45	3854
16 Oct	1312	U1326	A1438	M1.5	1B	S09W44	3852
16 Oct	1317	U1325	A1340		SF	S06W44	3854
16 Oct	1405	1423	1429	C7.6			3852
16 Oct	1429	1442	1451	M1.3	1N	S09W43	3852
16 Oct	1451	1500	1504	M1.3			3852
16 Oct	1458	1536	1551	C6.1	SF	N10W03	3856
16 Oct	1535	1538	1551		SF	S09W42	3854
16 Oct	1741	1745	1749	C7.1			3854
16 Oct	2147	2155	2215	C2.0			3856
16 Oct	2215	2219	2223	C1.7			3854
17 Oct	0212	0222	0238	M1.0			3856
17 Oct	0453	0505	0513	M2.4	SF	S10W53	3852
17 Oct	0540	0546	0600	C3.9			3855
17 Oct	0801	0808	0816	C4.0			3856
17 Oct	1025	1033	1040	C2.5			3852
17 Oct	1407	1427	1433	C6.6			3860
17 Oct	1540	1548	1553	C2.6			3856
17 Oct	1623	1632	1636	C3.2			3860
17 Oct	2102	2112	2118	C5.4			3860
17 Oct	2354	0001	0007	C2.1			3852
18 Oct	0010	0019	0025	C3.8			3852
18 Oct	0320	0336	0348	C5.7	SF	S10W65	3852
18 Oct	0407	0410	0416	C3.0			3860
18 Oct	0707	0716	0726	C2.2			
18 Oct	0937	0947	0953	C2.3			3854
18 Oct	1007	1020	1032	C5.9			3856
18 Oct	1223	1230	1236	C4.2			3854

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
18 Oct	1533	1544	1552	C2.7			3854
18 Oct	1728	1736	1741	M1.1			3854
18 Oct	1927	1938	1943	M4.8	SN	S06W76	3854
18 Oct	2256	2301	2313	C2.0			3852
18 Oct	2313	2328	2338	M4.7	SF	S11W80	3852
19 Oct	0507	0514	0518	C2.2			3859
19 Oct	0648	0656	0703	M6.5			3854
19 Oct	1051	1058	1103	C4.1			3863
19 Oct	1310	1314	1319	C1.9			3859
19 Oct	1427	1434	1440	M1.7			3854
19 Oct	1527	1536	1545	C2.5			3856
19 Oct	1622	1627	1631	C2.1			3860
19 Oct	2244	2250	2254	C3.4			
19 Oct	2301	2309	2325	C3.2			3859
20 Oct	0019	0024	0030	C3.7			3859
20 Oct	1311	1320	1328	C3.5			3863
20 Oct	1614	1615	1710		SF	S08E52	3863
20 Oct	2228	2235	2242	C5.0	SF	S10E46	3863

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 3848												
02 Oct	N14E70	113	280	6	Dhc	5	BD		1		4				
03 Oct	N13E56	114	330	7	Dkc	15	BG	1			3				
04 Oct	N13E42	115	700	6	Dkc	12	BGD				4				
05 Oct	N13E28	116	980	7	Dkc	14	BD				1				
06 Oct	N13E14	116	900	6	Dki	16	BD				1				
07 Oct	N13E01	116	770	8	Dki	28	BGD	1			2				
08 Oct	N12W11	115	600	6	Dki	14	BGD								
09 Oct	N12W25	116	600	6	Dki	14	BGD			1	1	1			
10 Oct	N13W39	117	600	6	Dki	20	BGD								
11 Oct	N13W53	117	600	7	Dko	14	BG								
12 Oct	N14W67	118	370	6	Dko	4	BG	3			4				
13 Oct	N13W79	117	350	8	Dhi	4	BG	1			1				
14 Oct	N15W90	115	350	6	Cko	8	BG	4	2		1				
								10	3	1	23	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 116

			Region 3849												
04 Oct	S06E64	93	190	8	Dao	8	B								
05 Oct	S06E51	93	320	8	Dac	14	BG								
06 Oct	S06E37	93	350	9	Dki	22	BG								
07 Oct	S07E23	94	250	8	Dki	20	BG				1				
08 Oct	S07E13	91	310	8	Dki	24	BG	1			2	1			
09 Oct	S07W02	93	240	11	Eai	18	BG		1						
10 Oct	S06W16	94	240	9	Dai	25	BG				1				
11 Oct	S07W30	94	200	9	Dai	19	BG	2			2				
12 Oct	S07W44	95	200	9	Dai	19	BG								
13 Oct	S06W56	94	240	5	Dai	5	B	2							
14 Oct	S06W68	93	230	5	Hax	4	A								
15 Oct	S06W83	95	230	5	Hax	4	A								
								5	1	0	6	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 93

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 3850												
06 Oct	S03E33	97	160	5	Dai	6	BG								
07 Oct	S10E20	97	130	4	Cao	3	B								
08 Oct	S10E08	96	150	6	Cao	11	B								
09 Oct	S10W06	95	100	4	Cao	8	B								
10 Oct	S08W19	97	100	3	Cao	4	B								
11 Oct	S09W31	95	110	5	Hax	3	A								
12 Oct	S09W45	96	110	5	Hsx	3	A	1							
13 Oct	S08W57	95	90	4	Hsx	1	A								
14 Oct	S08W72	97	80	2	Hax	1	A								
15 Oct	S08W86	98	80	2	Hax	1	A								
								1	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 95

			Region 3852												
07 Oct	S12E67	50	250	10	Dho	3	B								
08 Oct	S14E54	50	350	10	Dko	8	B								
09 Oct	S14E40	51	350	10	Dki	8	BG				1				
10 Oct	S10E26	52	360	11	Eki	20	BG								
11 Oct	S09E12	52	320	11	Ehi	16	BG	1			1				
12 Oct	S11W02	53	260	10	Dki	8	BD	1			2				
13 Oct	S10W15	53	300	10	Dki	8	BG				1				
14 Oct	S10W23	48	360	9	Dki	15	BG				2				
15 Oct	S10W37	49	440	11	Eki	13	BG	14	3		9	4	1		
16 Oct	S11W51	49	250	10	Cko	7	BG	6	6		8	3			
17 Oct	S13W65	50	190	6	Cao	9	B	2	1		1				
18 Oct	S14W78	50	120	2	Hax	1	A	3	1		2				
								27	11	0	27	7	1	0	0

Crossed West Limb.
Absolute heliographic longitude: 53

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 3853												
10 Oct	N20E37	41	10	1	Hrx	1	A								
11 Oct	N22E23	41	5	1	Axx	1	A								
12 Oct	N22E09	42	plage												
13 Oct	N22W05	43	plage												
14 Oct	N22W19	44	plage												
15 Oct	N22W33	45	plage												
16 Oct	N22W47	45	plage												
17 Oct	N22W61	46	plage												
18 Oct	N22W75	47	plage												
19 Oct	N22W89	48	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 43

			Region 3854												
10 Oct	S05E34	44	150	8	Dai	20	BG				1				
11 Oct	S04E20	44	210	8	Dai	17	BG		2		1				
12 Oct	S05E07	45	140	10	Dai	11	BG				1				
13 Oct	S04W05	43	260	11	Eki	15	BG				3				
14 Oct	S05W18	43	280	13	Eki	15	BG	4			4				
15 Oct	S05W33	45	340	13	Eki	15	BG	2	1		4				
16 Oct	S06W47	45	300	15	Eki	25	BGD	3			4				
17 Oct	S06W60	45	300	14	Ehi	16	BG								
18 Oct	S06W73	44	190	11	Eao	7	BG	3	2		1				
19 Oct	S06W85	44	70	2	Hsx	1	A		2						
								12	7	0	19	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 43

			Region 3855												
13 Oct	N14W33	71	20	3	Cso	4	B				1				
14 Oct	N16W48	73	20	5	Cro	6	B								
15 Oct	N16W62	74	20	5	Cro	6	B								
16 Oct	N15W76	74	20	5	Cro	6	B								
17 Oct	N15W90	75	20	2	Cro	3	B	1							
								1	0	0	1	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 71

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 3856												
13 Oct	N09E37	1	10	3	Bxo	1	B								
14 Oct	N09E23	2	10	1	Axx	1	A	1			1				
15 Oct	N09E09	3	10	1	Axx	1	A	1			1				
16 Oct	N10W05	3	150	7	Dai	18	BGD	4			4				
17 Oct	N10W19	4	190	8	Dac	12	BGD	2	1						
18 Oct	N10W33	5	150	8	Dai	5	BG	1							
19 Oct	N10W47	6	150	7	Dso	4	BG	1							
20 Oct	N10W61	7	150	9	Dso	4	B								
								10	1	0	6	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 3

			Region 3857												
14 Oct	S09E66	319	30	6	Cao	3	B								
15 Oct	S09E52	320	90	6	Cao	3	B								
16 Oct	S07E38	320	100	9	Dso	2	B								
17 Oct	S07E25	320	130	10	Dao	6	BG								
18 Oct	S07E13	319	100	10	Dao	6	BG								
19 Oct	S07W02	321	70	9	Dso	8	B								
20 Oct	S07W15	321	30	11	Ero	5	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 321

			Region 3858												
14 Oct	S15E61	324	20	6	Cao	3	B								
15 Oct	S15E47	325	40	5	Cao	3	B								
16 Oct	S15E33	325	20	1	Hax	2	A								
17 Oct	S15E20	325	10	4	Bxo	4	B								
18 Oct	S15E07	325	20	2	Hax	2	A								
19 Oct	S15W07	326	plage												
20 Oct	S15W21	327	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 325

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 3859												
15 Oct	S14E25	346	40	3	Dso	5	B								
16 Oct	S12E11	347	60	5	Dao	5	B								
17 Oct	S12W01	346	110	7	Dao	10	B								
18 Oct	S12W14	346	140	6	Dai	7	B								
19 Oct	S12W28	347	160	7	Dai	9	BG	3							
20 Oct	S12W41	347	210	8	Dai	12	BG	1							
								4	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 346

			Region 3860												
17 Oct	S07E15	330	70	6	Dai	6	B	3							
18 Oct	S07E02	330	20	1	Hax	1	A	1							
19 Oct	S07W13	332	40	7	Cso	6	B	1							
20 Oct	S07W27	333	40	4	Cso	3	B								
								5	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 330

			Region 3861												
18 Oct	S05W38	10	10	1	Axx	1	A								
19 Oct	S05W53	12	plage												
20 Oct	S05W68	14	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 10

			Region 3862												
18 Oct	S18E71	261	10	1	Axx	1	A								
19 Oct	S18E57	262	10	1	Axx	1	A								
20 Oct	S18E43	263	20	2	Hrx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 263

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 3863													
18 Oct	S02E69	263	60	1	Hsx	1	A								
19 Oct	S02E54	265	70	4	Cso	2	B	1							
20 Oct	S02E41	265	120	8	Csi	6	B	2			2				
								3	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 265

		Region 3864													
20 Oct	N25E48	258	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 258

		Region 3865													
20 Oct	S22E62	244	30	2	Hsx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 244

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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