

The week began at low (07 October), then very low (08 October) levels of solar activity. Moderate levels followed on 09 October when Region 1865 (S22, L=145, class/area=Dkc/270 on 13 October) produced an M2 flare (R1 - Minor) at 09/0148 UTC with no corresponding optical flare reported. This event was associated with weak Type II (estimated speed 791 km/s) and Type IV radio sweeps. Region 1865 appeared to have a magnetic delta configuration in the eastern half of its leader spot as it rotated further into view. Gradual spot and penumbral development was noted in Region 1861 (S09, L=170, class/area=Dhi/400 on 13 October) with flare-bright plage observed in the northern portion of the regions plage field.

By 11 October, both Regions 1861 and 1865 had grown and developed beta-gamma-delta magnetic configurations. Neither of these regions were responsible for the M1 flare at 11/0725 UTC, however. This flare originated from a region that was just beginning to rotate onto the NE limb. The event was associated with a Type II sweep (estimated speed 510 km/s), Type IV sweep, and a 380 sfu radio burst at 2695 MHz. The subsequent coronal mass ejection (CME), observed in SOHO/LASCO C2 imagery beginning at 11/0724 UTC was determined by WSA-ENLIL modeling to be mostly directed off the East limb with no geoeffective component. Another CME was observed off the SE limb in SOHO/LASCO C2 imagery beginning at 11/1400 UTC. This event was associated with a C6 flare that occurred at 11/1228 UTC from Region 1865 and was expected to impact Earth later early on the 15th. Regions 1861 and 1865 remained the largest and most magnetically complex regions on the solar disk in the days that followed.

After a brief respite, solar activity again reached moderate levels when Region 1865 produced an isolated M1/Sf flare (R1-Minor) at 13/0043 UTC which was accompanied by a Type II radio emission at 11/0035 UTC (estimated speed 798 km/s). WSA ENLIL modeling of the associated partial halo coronal mass ejection (CME) suggested an arrival time late on Oct 16. Slight decay was observed in the intermediate area of Region 1865, however it maintains an East/West oriented inversion line running through its leader spot. Umbral consolidation in the trailing spot and slight decay in intermediate spot area was observed in Region 1861.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 12 October at 1520 UTC. For the remainder of the week the flux was at low to moderate levels.

Geomagnetic field activity reached minor storm levels during the week. The period began with a weak CME passage at approximately 07/0035 UTC with minor increases in IMF Bt, speed, and density; associated with the CME observed on Oct. 3. Solar wind speed remained low in the 269 to 341 km/s range. IMF Bt ranged from 4 to 7 nT. IMF Bz was weakly southward during most of the period with a range of 3 to -6 nT. IMF Phi data indicated a positive-polarity (Away) solar sector during the period. The geomagnetic field responded with quiet to unsettled levels of activity. The following day ACE data indicated an interplanetary shock arrival at approximately 08/1337 UTC with significant increases in wind speed (approximately 300 to 480 km/s), IMF Bt



(7 to 35 nT), density, and temperature. The geomagnetic field was at quiet levels until around 08/2023 UTC, then rapidly increased to minor storm levels (G1 - Minor) by 08/2024 UTC. The activity increased following a geomagnetic sudden impulse (SI) at 08/1941 UTC (62 nT, Boulder USGS magnetometer).

By 09 October, solar wind speed increased to a high of 683 km/s at 09/0311 UTC following the shock arrival, then gradually decreased to a low of 445 km/s at 09/2316 UTC. IMF B_t was elevated through the period with a peak of 14 nT observed at 09/0900 UTC. IMF B_z was weakly southward during the first half of the period, then became weakly northward during the rest of the day with a range of 7 to -5 nT. Phi data indicated a positive-polarity solar sector during the period. The geomagnetic field was at active to minor storm levels (G1 - Minor) during the first half of the period, then decreased to unsettled levels after 09/1200 UTC. The following day, an isolated active period was observed during 10/0000-0300 UTC as the effects of the CME diminished. Quiet conditions returned on the 11th and remained through the end of the week.

Space Weather Outlook

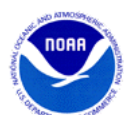
14 October - 09 November 2013

Solar activity is expected to be at low levels with a chance for isolated moderate level events through the forecast period.

There is a slight chance of proton events at geosynchronous orbit during the first week of the forecast period as Regions 1861 and 1865 move into more favorable positions in the western hemisphere.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to reach high levels until 20 October in response to recurrent coronal hole high speed streams. The remainder of the period is expected to see moderate to low flux levels.

Geomagnetic field activity is expected to be at unsettled to active levels on 15-17 October with a slight chance for minor storm periods. This elevated activity is expected in response to coronal mass ejections that occurred on 11 and 13 October coupled with the effects from a positive polarity coronal hole high speed stream. Unsettled to active levels are also expected on 24 October in response to a coronal hole high speed stream. The remainder of the forecast period should be mostly quiet in the absence of any more transient solar wind features.



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
07 October	112	76	170	B3.0	4	0	0	2	2	0	0	0
08 October	112	99	280	B2.7	0	0	0	2	0	0	0	0
09 October	113	111	490	B3.1	1	1	0	2	0	0	0	0
10 October	121	138	670	B4.7	9	0	0	12	0	0	0	0
11 October	129	115	780	B8.7	11	1	0	17	0	1	0	0
12 October	128	106	760	B5.9	9	0	0	9	2	0	0	0
13 October	129	125	920	B5.0	5	1	0	3	0	1	0	0

Daily Particle Data

Date	Proton Fluence (protons/cm ² -day -sr)			Electron Fluence (electrons/cm ² -day -sr)		
	>1 MeV	>10 MeV	>100 MeV	>0.6 MeV	>2MeV	>4 MeV
07 October	1.6e+06	1.4e+04	2.8e+03		2.2e+07	
08 October	1.9e+06	1.2e+04	2.5e+03		1.9e+07	
09 October	5.9e+05	1.0e+04	2.4e+03		1.8e+06	
10 October	1.2e+05	9.8e+03	2.4e+03		3.8e+06	
11 October	1.2e+05	1.1e+04	2.9e+03		1.7e+07	
12 October	2.7e+05	1.4e+04	3.7e+03		3.9e+07	
13 October	1.6e+05	1.5e+04	3.2e+03		1.9e+07	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
07 October	8	1-3-3-2-2-2-1-1	4	0-1-3-2-1-1-0-0	6	1-3-2-1-1-1-1-1
08 October	12	0-1-0-1-2-2-4-5	14	0-0-1-3-3-0-4-5	16	0-1-0-1-1-1-5-5
09 October	21	4-4-5-3-3-3-2-3	40	3-4-7-5-5-4-2-2	24	5-4-5-4-3-3-2-3
10 October	7	3-3-2-1-2-1-1-0	12	2-3-2-5-2-2-1-1	9	4-3-2-2-1-1-1-1
11 October	3	1-1-2-1-1-1-1-0	7	1-2-2-3-4-0-0-0	5	1-2-2-1-2-1-1-1
12 October	3	0-1-0-2-1-2-1-1	4	0-0-1-3-1-0-2-1	5	0-1-1-2-1-1-2-2
13 October	2	1-0-0-1-1-2-1-0	1	1-0-0-0-1-0-0-0	2	1-0-0-0-0-1-0-0

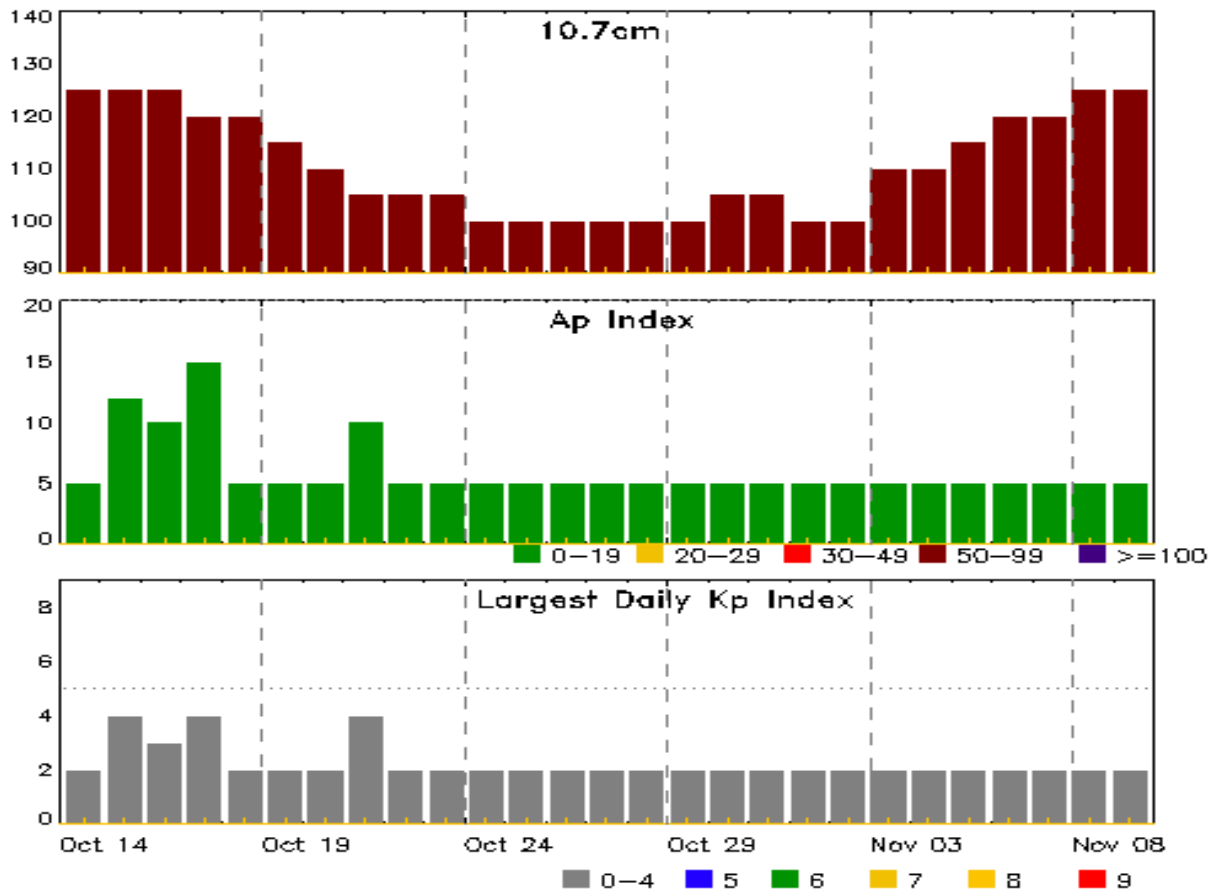


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
08 Oct 1953	WARNING: Geomagnetic Sudden Impulse expected	08/2020 - 2050
08 Oct 2026	WARNING: Geomagnetic K = 4	08/2027 - 2359
08 Oct 2030	WARNING: Geomagnetic K = 5	08/2030 - 2359
08 Oct 2033	ALERT: Geomagnetic K = 4	08/2023
08 Oct 2033	ALERT: Geomagnetic K = 5	08/2024
08 Oct 2036	SUMMARY: Geomagnetic Sudden Impulse	08/2023
08 Oct 2258	WARNING: Geomagnetic K = 6	08/2257 - 09/0300
08 Oct 2356	EXTENDED WARNING: Geomagnetic K = 4	08/2027 - 09/1300
08 Oct 2356	EXTENDED WARNING: Geomagnetic K = 5	08/2030 - 09/0400
09 Oct 0216	ALERT: Type IV Radio Emission	09/0155
09 Oct 0239	ALERT: Type II Radio Emission	09/0145
09 Oct 0813	WARNING: Geomagnetic K = 5	09/0810 - 1300
09 Oct 0815	ALERT: Geomagnetic K = 5	09/0811
09 Oct 1217	EXTENDED WARNING: Geomagnetic K = 4	08/2027 - 1900
09 Oct 1219	EXTENDED WARNING: Geomagnetic K = 4	08/2027 - 09/1900
09 Oct 1827	EXTENDED WARNING: Geomagnetic K = 4	08/2027 - 10/0700
11 Oct 0808	SUMMARY: 10cm Radio Burst	11/0725 - 0726
11 Oct 0809	ALERT: Type II Radio Emission	11/0711
11 Oct 0823	ALERT: Type IV Radio Emission	11/0717
12 Oct 1536	ALERT: Electron 2MeV Integral Flux ≥ 1000 pfu	12/1520
13 Oct 0151	ALERT: Type II Radio Emission	13/0035
13 Oct 0804	ALERT: Type II Radio Emission	13/0711



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 Oct	125	5	2	28 Oct	100	5	2
15	125	12	4	29	100	5	2
16	125	10	3	30	105	5	2
17	120	15	4	31	105	5	2
18	120	5	2	01 Nov	100	5	2
19	115	5	2	02	100	5	2
20	110	5	2	03	110	5	2
21	105	10	4	04	110	5	2
22	105	5	2	05	115	5	2
23	105	5	2	06	120	5	2
24	100	5	2	07	120	5	2
25	100	5	2	08	125	5	2
26	100	5	2	09	125	5	2
27	100	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		Intensity	
									245	2695	II	IV
09 Oct	0123	0148	0156	M2.8	0.025			1865			1	1
11 Oct	0701	0725	0745	M1.5	0.025				980	160	2	2
13 Oct	0012	0043	0105	M1.7	0.031	SF	S22E17	1865	100		1	

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Optical		Rgn #
	Begin	Max	End			Location Lat CMD		
07 Oct	0004	0008	0011	B6.6				
07 Oct	0358	0414	0423	C6.2	1N	N09E18		1856
07 Oct	0456	0508	0512	C1.0				1861
07 Oct	1128	1133	1137	B6.1				1861
07 Oct	1350	1357	1405	C1.0				1861
07 Oct	1419	1419	1423		SF	N07E64		1856
07 Oct	1449	1455	1505	B7.4				1861
07 Oct	1534	1540	1555	C2.3	1F	N07E64		1856
07 Oct	1708	1708	1716		SF	S06E08		1857
08 Oct	0231	0241	0244	B6.9				1861
08 Oct	1053	1100	1111	B9.3				1861
08 Oct	2141	2144	2151		SF	N08W08		1856
08 Oct	2223	2223	2246		SF	N07W10		1856
09 Oct	0123	0148	0156	M2.8				1865
09 Oct	0506	0528	0538	B9.5				1856
09 Oct	0608	0613	0621	C1.0	SF	S22E63		1865
09 Oct	2020	2027	2032	B7.2	SF	S08W19		1857
09 Oct	2129	2141	2157	B7.6				1856
10 Oct	0701	0708	0711	C1.2	SF	S14E32		1861
10 Oct	1057	1101	1104	C1.6	SF	S08E30		1861
10 Oct	B1205	U1205	1211		SF	S09E30		1861
10 Oct	1356	1356	1404		SF	S09E29		1861
10 Oct	1408	1409	1419		SF	S08E28		1861
10 Oct	1533	1544	1555	B8.7	SF	S09E39		1861
10 Oct	1557	1558	1608		SF	S09E39		1861
10 Oct	1612	1626	1630	C1.4	SF	S08E28		1861
10 Oct	1640	1644	1648	C1.2				1861
10 Oct	1642	1644	1649		SF	S19E54		1865



Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
10 Oct	1645	1645	1703		SF	S09E28	1861
10 Oct	1656	1659	1705	C1.6	SF	S20E54	1865
10 Oct	1746	1752	1802	C1.3	SF	S20E52	1865
10 Oct	1933	1938	1956	C1.1			1861
10 Oct	2017	2024	2028	C1.0			1865
10 Oct	2106	2109	2111	B8.6			
10 Oct	2359	0009	0028	C3.0	SF	S10E22	1861
11 Oct	0321	0327	0336	C1.7			1861
11 Oct	0359	0410	0419	C5.5	SF	S10E20	1861
11 Oct	0544	0549	0554	C1.4	2F	S08E20	1861
11 Oct	0701	0725	0745	M1.5			
11 Oct	B0708	U0721	A0722		SF	S21E44	1865
11 Oct	0822	0918	0929	C5.4	SF	S10E17	1861
11 Oct	B0915	U0918	A0922		SF	S21W75	1866
11 Oct	B1000	U1004	A1007		SF	S08E17	1861
11 Oct	1214	1228	1247	C6.2			1865
11 Oct	1430	1454	1505	C4.7	SF	S09E14	1861
11 Oct	1543	1547	1556		SF	S20E52	1865
11 Oct	1604	1605	1609		SF	S22W77	1866
11 Oct	1611	1614	1619		SF	S29W01	1860
11 Oct	1651	1656	1702	C2.3	SF	S09E16	1861
11 Oct	1753	1805	1812		SF	S10E15	1861
11 Oct	1838	1844	1850	C1.6	SF	S10E15	1861
11 Oct	2004	2014	2019	C4.0	SF	S10E12	1861
11 Oct	2146	2147	2155		SF	S10E12	1861
11 Oct	2157	2203	2218	C2.4	SF	S09E11	1861
11 Oct	2256	2307	2319	C6.3	SF	S09E11	1861
12 Oct	0046	0051	0102	C1.5			1861
12 Oct	0154	0200	0203	C5.2	1F	S09E09	1861
12 Oct	0241	0241	0244		SF	S07E06	1861
12 Oct	0337	0347	0359	C5.4	1F	S07E05	1861
12 Oct	0624	0628	0637	C2.0			1861
12 Oct	B0737	U0737	0749		SF	S10E06	1861
12 Oct	0812	0816	0820	C2.0			1861
12 Oct	B0854	U0854	A0906		SF	S11E06	1861
12 Oct	1042	1046	1048	C1.5			1865
12 Oct	1102	1214	1228	C2.4			1861
12 Oct	B1133	U1134	A1139		SF	S12E03	1861



Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
12 Oct	B1212	U1214	A1230		SF	S10E02	1861
12 Oct	1704	1708	1718	C1.8	SF	S11E03	1861
12 Oct	2125	2126	2128		SF	S09W02	1861
12 Oct	2140	2143	2145		SF	S10W02	1861
12 Oct	2202	2216	2228	C2.9	SF	S11W05	1861
13 Oct	0004	0008	0010	C1.2			
13 Oct	0012	0043	0105	M1.7	SF	S22E17	1865
13 Oct	0826	0910	0919	C1.4			
13 Oct	1127	1131	1134		SF	S07W10	1861
13 Oct	1750	1758	1807	C4.5	2F	S12W14	1861
13 Oct	2132	2135	2140	C1.2			
13 Oct	2355	0002	0009	C1.1	SF	S22E01	1865



Region Summary

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

Region 1854

28 Sep	N06E65	284	50	5	Dso	5	B								
29 Sep	N06E51	284	30	4	Cao	3	B								
30 Sep	N05E34	287	10	1	Hrx	1	A								
01 Oct	N05E19	289	10	1	Hsx	1	A								
02 Oct	N05E04	290	20	1	Hsx	1	A								
03 Oct	N05W09	292	plage												
04 Oct	N05W24	293	plage												
05 Oct	N05W39	295	plage												
06 Oct	N05W54	297	plage												
07 Oct	N05W69	299	plage												
08 Oct	N05W84	301	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 290

Region 1855

30 Sep	S13E16	305	10	4	Bxo	8	B								
01 Oct	S14E01	306	80	6	Dsi	17	B				1				
02 Oct	S14W11	307	130	7	Dsi	16	B								
03 Oct	S13W26	307	90	8	Dso	14	B				1				
04 Oct	S13W39	308	80	9	Dai	15	B								
05 Oct	S13W53	309	70	9	Dao	9	B								
06 Oct	S13W67	310	40	10	Cao	7	B								
07 Oct	S13W82	310	30	5	Cro	2	B								
								0	0	0	2	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 306



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 1856															
02 Oct	N08E69	225	50	2	Cao	1	B								
03 Oct	N07E56	225	70	6	Dso	2	B				1				
04 Oct	N08E43	226	80	7	Dso	8	B	1			1				
05 Oct	N08E31	225	70	7	Cao	5	B								
06 Oct	N08E18	225	40	7	Cao	4	B	1							
07 Oct	N07E02	226	30	4	Cro	4	B	2			1	2			
08 Oct	N07W10	226	30	3	Cao	3	B				2				
09 Oct	N07W22	225	10	4	Bxo	8	B								
10 Oct	N07W36	226	10	3	Bxo	2	B								
11 Oct	N07W51	228	plage												
12 Oct	N07W66	230	plage												
13 Oct	N07W81	232	plage												
								4	0	0	5	2	0	0	0

Still on Disk.

Absolute heliographic longitude: 226

Region 1857

02 Oct	S06E66	228	70	2	Hax	1	A								
03 Oct	S08E54	227	100	2	Hsx	1	A	1							
04 Oct	S07E41	228	100	3	Cao	4	B								
05 Oct	S08E28	228	110	2	Hsx	1	A								
06 Oct	S08E14	229	110	2	Hsx	1	A				1				
07 Oct	S07E01	227	80	2	Hsx	1	A				1				
08 Oct	S08W11	227	90	2	Hsx	1	A								
09 Oct	S07W24	227	110	2	Hsx	1	A				1				
10 Oct	S08W37	227	100	5	Hsx	1	A								
11 Oct	S08W51	228	100	2	Hsx	1	A								
12 Oct	S08W65	229	80	2	Hsx	1	A								
13 Oct	S08W78	229	70	2	Hsx	1	A								
								1	0	0	3	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 227



Region Summary - continued

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

Region 1859

04 Oct	S17W08	277	30	4	Cro	4	B								
05 Oct	S15W23	279	10	2	Axx	2	A								
06 Oct	S15W37	280	10	1	Axx	1	A								
07 Oct	S15W51	281	plage												
08 Oct	S15W65	282	plage												
09 Oct	S15W79	283	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 277

Region 1860

07 Oct	S28E40	189	10	1	Axx	1	A								
08 Oct	S27E31	187	10	2	Axx	2	A								
09 Oct	S28E13	190	plage												
10 Oct	S28W01	191	plage												
11 Oct	S28W15	192	plage								1				
12 Oct	S28W29	193	plage												
13 Oct	S28W43	194	plage												
								0	0	0	1	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 191

Region 1861

07 Oct	S13E64	164	10	4	Bxo	2	B	2							
08 Oct	S13E50	165	10	6	Bxo	3	B								
09 Oct	S13E37	166	60	11	Cao	8	B								
10 Oct	S10E22	168	200	11	Eac	23	BG	6			9				
11 Oct	S09E08	169	340	9	Dkc	19	BGD	10			12		1		
12 Oct	S09W05	169	380	8	Dkc	14	BG	8			9	2			
13 Oct	S09W19	170	400	8	Dhi	12	BG	1			1		1		
								27	0	0	31	2	2	0	0

Still on Disk.

Absolute heliographic longitude: 169



Region Summary - continued

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

Region 1862

07 Oct	S24W19	248	10	6	Bxo	6	B								
08 Oct	S23W34	250	20	6	Cso	3	B								
09 Oct	S23W49	252	10	3	Bxo	3	B								
10 Oct	S23W61	251	40	7	Dao	8	B								
11 Oct	S23W74	251	30	4	Cro	4	B								
12 Oct	S23W88	252	plage												
								0	0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 248

Region 1863

08 Oct	S18E19	197	10	4	Bxo	4	B								
09 Oct	S18E05	197	10	2	Axx	2	A								
10 Oct	S19W08	198	30	4	Dro	5	B								
11 Oct	S18W22	199	20	6	Cro	3	B								
12 Oct	S18W36	200	10	4	Bxo	3	B								
13 Oct	S18W50	201	20	4	Cro	4	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 197

Region 1864

08 Oct	S23E62	154	50	1	Hsx	1	A								
09 Oct	S22E48	155	70	2	Hax	2	A								
10 Oct	S23E34	156	60	2	Hax	2	A								
11 Oct	S23E21	156	60	3	Hsx	3	A								
12 Oct	S23E07	157	60	2	Hsx	2	A								
13 Oct	S23W07	158	60	2	Hsx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 157



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 1865															
08 Oct	S20E73	143	60	3	Cao	2	B								
09 Oct	S21E58	145	210	7	Dao	5	BD	1	1		1				
10 Oct	S22E45	145	220	7	Dai	15	BGD	3			3				
11 Oct	S22E32	145	220	8	Dao	14	BGD	1			2				
12 Oct	S22E19	145	200	9	Dao	20	BGD	1							
13 Oct	S22E06	145	270	9	Dkc	16	BGD	1	1		2				
								7	2	0	8	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 145

Region 1866

09 Oct	S16W63	266	10	3	Bxo	2	B								
10 Oct	S16W77	267	plage												
								0	0	0	0	0	0	0	0

Died on Disk.

Absolute heliographic longitude: 266

Region 1867

10 Oct	N23E07	183	10	2	Axx	2	A								
11 Oct	N23W07	184	10	1	Axx	1	A								
12 Oct	N23W20	184	30	5	Cro	6	B								
13 Oct	N24W32	183	50	6	Dao	7	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 183

Region 1868

13 Oct	N18E51	100	10	1	Axx	1	A								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 100

Region 1869

13 Oct	N19E66	85	40	9	Dso	3	B								
								0	0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 85

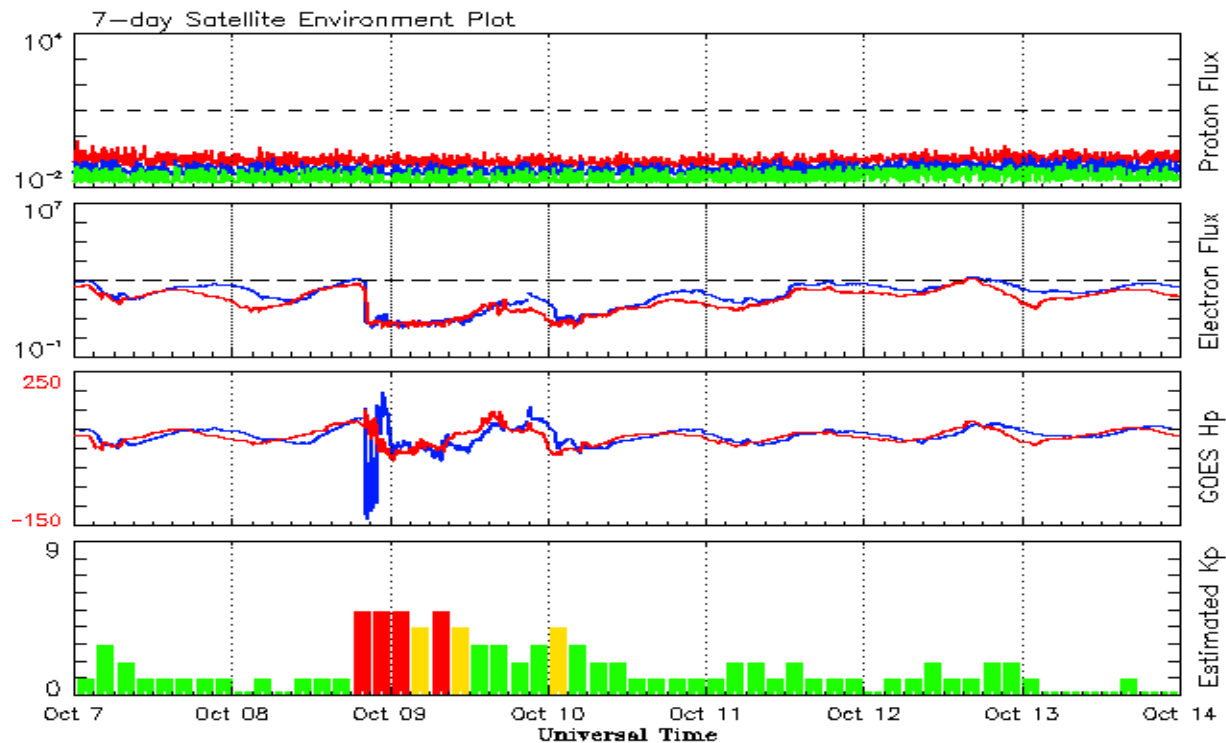


Recent Solar Indices (preliminary)
Observed monthly mean values

Month	Sunspot Numbers					Radio Flux		Geomagnetic	
	Observed values		Ratio	Smooth values		Penticton	Smooth	Planetary	Smooth
	SEC	RI	RI/SEC	SEC	RI	10.7 cm	Value	Ap	Value
2011									
October	116.8	88.0	0.75	84.6	59.9	137.2	118.4	7	8.0
November	133.1	96.7	0.73	86.3	61.1	153.1	119.5	3	8.0
December	106.3	73.0	0.69	89.2	63.4	141.2	121.6	3	8.0
2012									
January	91.3	58.3	0.64	92.0	65.5	133.1	124.4	6	8.3
February	50.1	32.9	0.66	94.2	66.9	106.7	126.7	7	8.4
March	77.9	64.3	0.82	94.1	66.8	115.1	126.8	14	8.1
April	84.4	55.2	0.65	91.3	64.6	113.1	125.8	9	8.0
May	99.5	69.0	0.69	87.7	61.7	121.5	123.8	8	8.2
June	88.6	64.5	0.73	83.9	58.9	120.5	121.1	10	8.3
July	99.6	66.5	0.67	82.4	57.8	135.6	119.5	13	8.3
August	85.8	63.0	0.74	83.1	58.2	115.7	119.2	7	8.1
September	84.0	61.4	0.73	83.7	58.1	123.2	118.9	8	7.8
October	73.5	53.3	0.73	85.0	58.6	123.3	119.2	9	7.4
November	89.2	61.8	0.69	87.3	59.7	120.9	120.1	6	7.3
December	60.4	40.8	0.68	88.0	59.6	108.4	120.1	3	7.5
2013									
January	99.8	62.9	0.63	87.1	58.7	127.1	118.9	4	7.5
February	60.0	38.1	0.63	86.7	58.4	104.4	118.0	5	7.4
March	81.0	57.9	0.71	85.7	57.5	111.2	117.1	9	7.4
April	112.8	72.4	0.64			125.0		5	
May	125.5	78.7	0.63			131.3		10	
June	80.1	52.5	0.66			110.2		13	
July	86.1	57.0	0.66			115.6		9	
August	90.2	66.0	0.73			114.7		9	
September	55.0	36.9	0.67			102.7		5	

Note: Values are final except for the most recent 6 months which are considered preliminary.
Cycle 24 started in Dec 2008 with an RI=1.7.





*Weekly Geosynchronous Satellite Environment Summary
Week Beginning 07 October 2013*

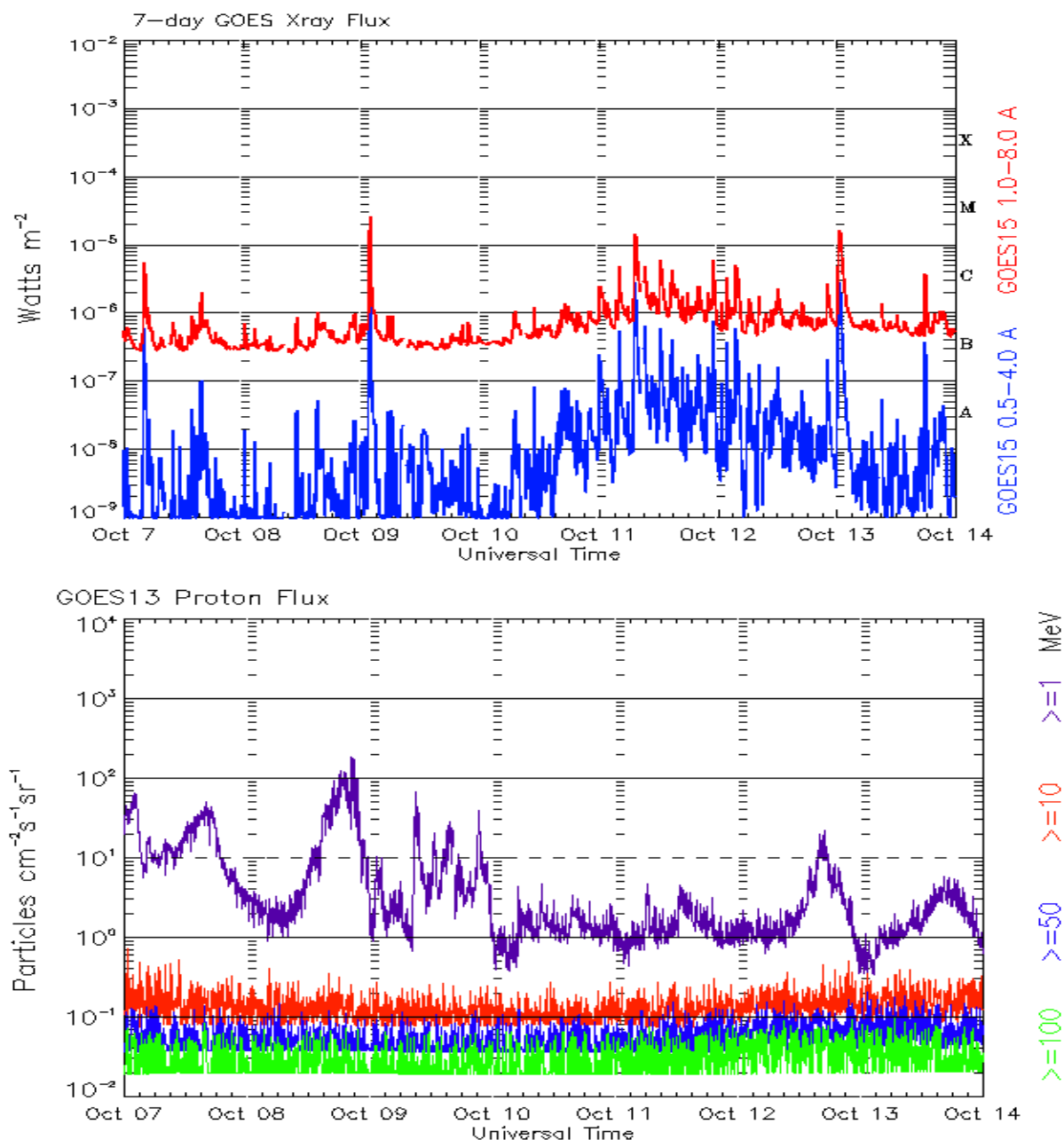
The proton flux plot contains the five-minute averaged integral proton flux (protons/cm²-sec -sr) as measured by the SWPC Primary GOES satellite, near West 75, for each of three energy thresholds: greater than 10, 50, and 100 MeV.

The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

The Hp plot contains the five minute averaged Hp magnetic field component in nanoteslas (nT) as by the SWPC Primary GOES satellite. The Hp component is parallel to the spin axis of the satellite, which is nearly parallel to the Earth's rotation axis.

The Estimated 3-hour Planetary Kp-index is derived at the NOAA Space Weather Prediction Center using data from the following ground-based magnetometers: Boulder, Colorado; Chambon la Foret, France; Fredericksburg, Virginia; Fresno, California; Hartland, UK; Newport, Washington; Sitka, Alaska. These data are made available thanks to the cooperative efforts between SWPC and data providers around the world, which currently includes the U.S. Geological Survey, the British Geological Survey, and the Institut de Physique du Globe de Paris.

The data included here are those now available in real time at the SWPC and are incomplete in that they do not include the full set of parameters and energy ranges known to cause satellite operating anomalies. The proton and electron fluxes and Kp are 'global' parameters that are applicable to a first order approximation over large areas. H parallel is subject to more localized phenomena and the measurements generally are applicable to within a few degrees of longitude of the measuring satellite.



*Weekly GOES Satellite X-ray and Proton Plots
Week Beginning 07 October 2013*

The x-ray plots contains five-minute averages x-ray flux (Watt/m^2) as measure by the SWPC primary GOES X-ray satellite, usually at West 105 longitude, in two wavelength bands, 0.05 - 0.4 and 0.1 - 0.8 nm. The letters A, B, C, M and X refer to x-ray event levels for the 0.1 - 0.8 nm band.

The proton plot contains the five-minute averaged integral flux units (pfu = protons/ cm^2 -sec -sr) as measured by the primary SWPC GOES Proton satellite for each of the energy thresholds: >1 , >10 , >30 , and >100 MeV. The P10 event threshold is 10 pfu at greater than 10 MeV.

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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