Space Weather Highlights **SWPC PRF 2624**
08 December - 14 December 2025 **15 December 2025**

Solar activity reached high levels this week, with a single X-flare and multiple (16) M-flares. Region 4298 (S16, L=305, class/area Cso/60 on 10 Dec) produced the only X-flare of the period: an X1.1/2b flare at 08/0501 UTC. Other notable activity included multiple M-class flares from several different regions. Region 4294 (S15, L=284, class/area Ekc/1180 on 08 Dec) was responsible for the majority of the M-flares, including: an M2.2/1n at 08/0036 UTC, an M1.0/Sf at 08/1305 UTC, an M3.1/Sf at 08/2117 UTC, an M1.1 at 09/0138 UTC, an M1.0/Sf at 09/0729 UTC, an M1.3/Sf at 090739 UTC, an M1.6/Sf at 09/0747 UTC, an M1.5/Sf at 091514 UTC, an M1.2/Sf at 10/0422 UTC, an M1.9/Sf at 10/0737 UTC, an M1.0/1f at 10/0955 UTC, an M1.6/Sf at 10/1343 UTC, an M4.4/2b at 10/2208 UTC, and an M1.1 at 12/0544 UTC. Region 4296 (S14, L=272, class/area Ekc/500 on 08 Dec) contributed two M-flares: an M1.5/Sf at 09/2327 UTC, and an M2.0 at 12/0505 UTC. Region 4299 (N22, L=267, class/area Dai/130 on 08 Dec) added three M-flares: an M2.4/2n at 08/0012 UTC, an M1.2/Sn at 08/2228 UTC, and an M2.0 at 09/0058 UTC. Finally, Region 4304 (N26, L=252, class/area Cai/110 on 11 Dec) produced a single M-flare: an M1.8/1n at 08/0654 UTC.

Multiple radio events accompanied some of the flares, with a total of eight Type II and three Type IV radio sweeps, as well as a 10cm radio burst. These included: a Type II (est 317 km/s) associated with the M2.4/2n at 08/0012 UTC, a Type II (est 347 km/s) associated with the X1.1/2b at 08/0036 UTC, a Type II (est 1825 km/s) and Type IV associated with the M1.1 at 09/0138 UTC, a Type II (est 759 km/s) thought to be associated with a far sided flare event, a Type II (est 1053 km/s) associated with the M1.6/Sf at 10/1343 UTC, a Type II (est 849 km/s) and 10cm burst (168 sfu) associated with the M4.4/2b at 10/2208 UTC, a Type II (est 410 km/s) and Type IV associated with the M2.0 at 12/0505 UTC, and a Type IV associated with the M1.1 at 12/0544 UTC.

Several CMEs were analyzed throughout the period, with only a couple thought to have an Earth-directed component. The most notable event was from the X1.1/2b flare that had a westerly trajectory with an analyzed glancing arrival at Earth late on 10 Dec to early on 11 Dec. There is a possibility this CME contributed to the G2 (Mod) geomagnetic storming event on 10-11 Dec. There was also a CME from the M4.4/2b flare from Region 4294 at 10/2208 UTC, but the resulting analysis indicated the bulk of the ejecta would pass ahead of Earth. However, it is possible more of the ejecta could have passed near enough to Earth on 13 Dec, combined with CH HSS effects, and enhanced conditions to the G1 (Minor) storm levels. The majority of the other CMEs were deemed to not have Earth-directed components.

The greater than 10 MeV proton flux was at background levels throughout the period.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 08-09 Dec, and at normal to moderate levels on 10-14 Dec.

Geomagnetic field activity was at quiet to unsettled levels on 08, 09, and most of 10 Dec, as well as 14 Dec. G2 (Moderate) storm levels were observed the last period of 10 Dec and the first synoptic period on 11 Dec following the arrival of a CME that likely left the Sun on 08 Dec. Active to G1 (Minor) storming was observed on 12 and 13 Dec in response to negative polarity CH HSS influence mixed with possible transient effects.

Space Weather Outlook
15 December - 10 January 2026

M-class flares (R1-R2/Minor-Moderate) are likely, with a chance for X-class (R3/Strong) flares through the outlook period. Chances could increase if new, more magnetically complex regions develop or return during the period.

Barring significant development of new active regions, the greater than 10 MeV proton flux is expected to remain below the 10 pfu (S1-Minor) levels throughout the outlook period.

The greater than 2 MeV electron flux is expected to reach high levels on 16-19 Dec, 25-29 Dec, and 01-06 Jan. Normal to moderate levels expected to prevail on 15, 20-24, 30-31 Dec, and 07-10 Jan.

Geomagnetic field activity is likely to reach G1 (Minor) storm levels on 18 Dec, 30-31 Dec, and possibly 09 Jan, due to negative polarity CH HSS influences. G1 levels are also likely on 22-26 Dec, due to positive polarity CH HSS influences. Unsettled to active levels are likely on 15-17, 19-20 Dec, 01-03 Jan, and 08-10 Jan under the influence of negative polarity CH HSS, and on 27-29 Dec under positive polarity CH HSS influence. Mostly quiet conditions are expected on 21 Dec and 04-08 Jan.

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
08 December	186	146	1550	C1.4	12	4	1	16	2	2	0	0
09 December	183	134	1410	C1.8	9	5	0	11	2	0	0	0
10 December	168	134	1450	C1.7	15	5	0	15	2	1	0	0
11 December	146	123	1500	C1.0	12	0	0	2	0	0	0	0
12 December	135	124	1490	C1.0	7	2	0	1	0	0	0	0
13 December	122	76	590	B7.3	9	0	0	0	0	0	0	0
14 December	119	78	230	B6.5	6	0	0	1	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
08 December	5.5e+06	2.2e+04	6.2e+07
09 December	2.2e+06	1.6e+04	6.6e+07
10 December	1.8e+06	1.4e+04	4.0e+07
11 December	5.7e+05	1.4e+04	1.1e+07
12 December	8.8e+05	1.4e+04	2.0e+07
13 December	4.5e+05	1.4e+04	1.3e+07
14 December	6.5e+05	1.5e+04	1.7e+07

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
08 December	1	0-0-0-0-0-1-1-0	0	0-0-0-0-0-0-0-0	2	0-1-0-0-0-0-1-1
09 December	4	2-0-1-0-2-2-1-1	5	0-0-1-3-2-2-2-0	5	2-1-1-1-1-2-1-1
10 December	16	2-1-2-2-2-1-3-6	19	0-2-3-4-4-3-3-5	21	3-2-3-2-2-2-3-6
11 December	17	4-4-2-2-2-4-4-1	23	5-4-2-2-3-4-5-2	26	6-5-2-2-2-4-5-3
12 December	19	3-4-2-3-3-3-4-4	52	4-4-5-6-5-6-6-4	28	4-4-3-4-3-3-5-5
13 December	8	3-2-2-2-2-2-2-2	18	3-1-2-3-4-3-5-3	14	5-2-2-2-3-2-3-3
14 December	5	2-2-1-2-1-1-1-1	6	2-2-1-2-3-1-1-0	12	3-2-1-2-1-1-2-1

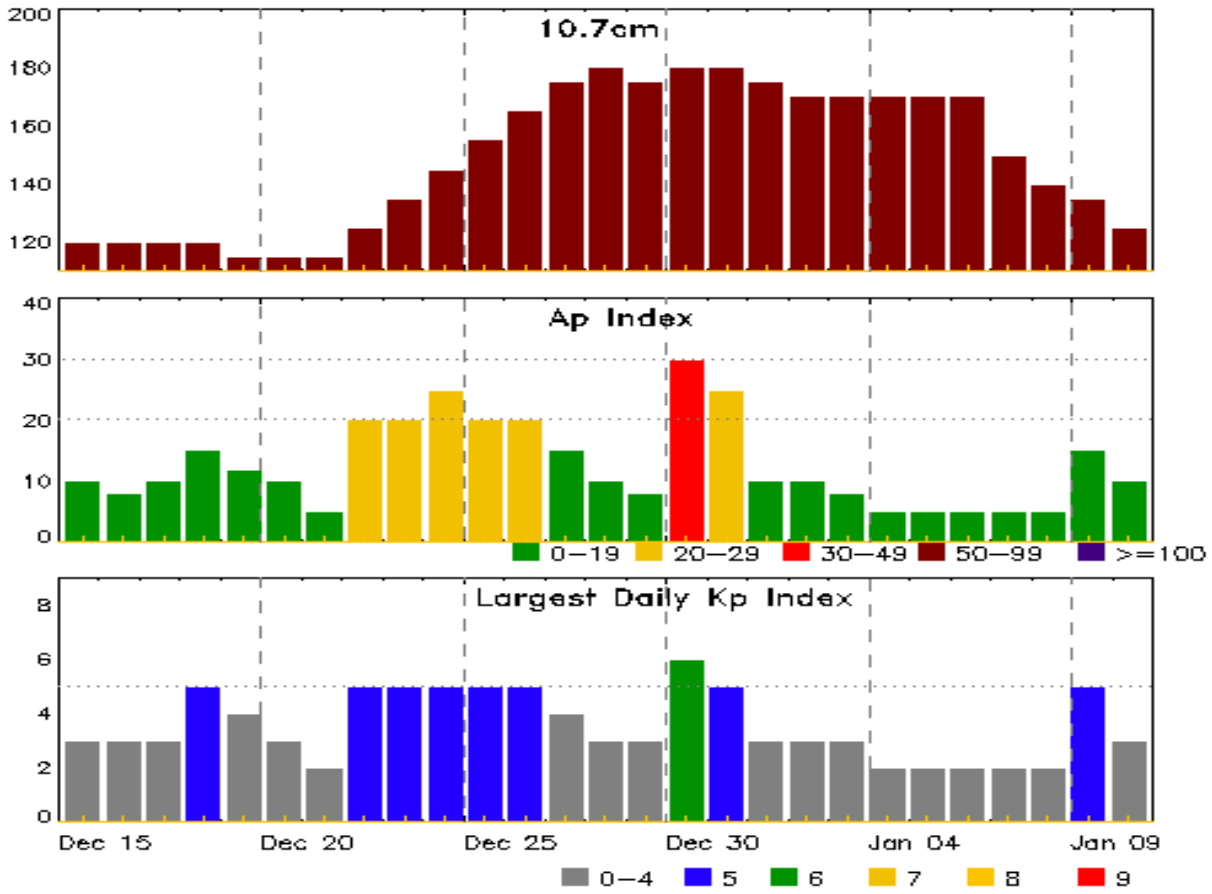
Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
08 Dec 0046	ALERT: Type II Radio Emission	08/0017
08 Dec 0502	ALERT: X-ray Flux exceeded M5	08/0500
08 Dec 0513	SUMMARY: X-ray Event exceeded X1	08/0449 - 0504
08 Dec 1237	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	05/1530
09 Dec 0204	ALERT: Type II Radio Emission	09/0141
09 Dec 0215	ALERT: Type II Radio Emission	09/0152
09 Dec 0256	ALERT: Type IV Radio Emission	09/0220
09 Dec 1210	CONTINUED ALERT: Electron 2MeV Integral Flux >= 1000pfu	05/1530
09 Dec 2103	CANCELLATION: Geomagnetic Storm Category G3 predicted	
10 Dec 0708	WARNING: Geomagnetic K = 4	10/0707 - 1500
10 Dec 2040	WARNING: Geomagnetic K = 4	10/2040 - 11/0300
10 Dec 2117	WARNING: Geomagnetic K = 5	10/2115 - 11/0300
10 Dec 2120	ALERT: Geomagnetic K = 4	
10 Dec 2157	WARNING: Geomagnetic K = 6	10/2200 - 11/0300
10 Dec 2206	EXTENDED WARNING: Geomagnetic K = 4	10/2040 - 11/0900
10 Dec 2207	EXTENDED WARNING: Geomagnetic K = 5	10/2115 - 11/0600
10 Dec 2213	ALERT: Geomagnetic K = 5	
10 Dec 2226	SUMMARY: 10cm Radio Burst	10/2206 - 2208
10 Dec 2229	ALERT: Type II Radio Emission	10/2208
10 Dec 2244	ALERT: Geomagnetic K = 6	
11 Dec 0014	CANCELLATION: 10cm Radio Burst	
11 Dec 0016	SUMMARY: 10cm Radio Burst	10/2206 - 2208
11 Dec 0252	ALERT: Geomagnetic K = 6	
11 Dec 0255	EXTENDED WARNING: Geomagnetic K = 6	10/2200 - 11/0600
11 Dec 0337	EXTENDED WARNING: Geomagnetic K = 4	10/2040 - 11/2359
11 Dec 0339	EXTENDED WARNING: Geomagnetic K = 5	10/2115 - 11/1200
11 Dec 1919	WARNING: Geomagnetic K = 5	11/1900 - 12/0000

Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
11 Dec 2059	ALERT: Geomagnetic K = 5	
11 Dec 2339	EXTENDED WARNING: Geomagnetic K = 5	11/1900 - 12/0600
11 Dec 2339	EXTENDED WARNING: Geomagnetic K = 4	10/2040 - 12/1200
12 Dec 0528	ALERT: Type II Radio Emission	12/0508
12 Dec 0555	EXTENDED WARNING: Geomagnetic K = 5	11/1900 - 12/0900
12 Dec 0558	ALERT: Type IV Radio Emission	12/0527
12 Dec 1055	EXTENDED WARNING: Geomagnetic K = 4	10/2040 - 12/2359
12 Dec 1942	WARNING: Geomagnetic K = 5	12/1940 - 13/0900
12 Dec 1943	ALERT: Geomagnetic K = 5	
12 Dec 2237	EXTENDED WARNING: Geomagnetic K = 4	10/2040 - 13/1500
12 Dec 2250	ALERT: Geomagnetic K = 5	
13 Dec 0302	ALERT: Geomagnetic K = 5	
13 Dec 1106	ALERT: Type II Radio Emission	13/1049
13 Dec 1456	EXTENDED WARNING: Geomagnetic K = 4	10/2040 - 14/0600
14 Dec 0932	ALERT: Type II Radio Emission	14/0744

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
15 Dec	120	10	3	29 Dec	175	8	3
16	120	8	3	30	180	30	6
17	120	10	3	31	180	25	5
18	120	15	5	01 Jan	175	10	3
19	115	12	4	02	170	10	3
20	115	10	3	03	170	8	3
21	115	5	2	04	170	5	2
22	125	20	5	05	170	5	2
23	135	20	5	06	170	5	2
24	145	25	5	07	150	5	2
25	155	20	5	08	140	5	2
26	165	20	5	09	135	15	5
27	175	15	4	10	125	10	3
28	180	10	3				

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
08 Dec	0033	0036	0039	M2.0	0.006	1N	S15W30	4294				
08 Dec	0449	0501	0504	X1.1	0.031	2B	S14W52	4298		570		
08 Dec	0640	0654	0704	M1.8	0.017	1N	N22W09	4304				
08 Dec	1242	1305	1321	M1.0	0.017	SF	S17W48	4298				
08 Dec	2113	2117	2125	M3.1	0.015			4294				
08 Dec	2204	2228	2245	M1.2	0.019	SN	N22W27	4299				
09 Dec	0037	0058	0117	M2.0	0.037			4299				
09 Dec	0134	0138	0142	M1.1	0.006			4294		5700		2
09 Dec	0741	0747	0751	M1.6	0.012	SF	S26E45	4294				
09 Dec	1500	1514	1520	M1.5	0.010	1F	S13W51	4294				
09 Dec	2313	2327	2336	M1.5	0.013	SF	S17W44	4296				
10 Dec	0417	0422	0427	M1.2	0.006	SF	S14W60	4294				
10 Dec	0731	0737	0742	M1.9	0.008	1N	S15W62	4294				
10 Dec	0946	0955	1002	M1.0	0.007			4294				
10 Dec	1332	1343	1349	M1.6	0.009	SF	S22W62	4294		120		2
10 Dec	2158	2208	2214	M4.4	0.019	2B	S20W66	4294		27000	520	3
12 Dec	0450	0505	0514	M2.0	0.017			4296		6100		3
12 Dec	0527	0544	0553	M1.1	0.016			4294				

Flare List

	Time			Optical			
Date	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
08 Dec	0001	0003	0120		2N	N20W12	4299
08 Dec	0026	0036	0056	M2.0	1N	S15W30	4294
08 Dec	0140	0144	0148	C2.7	SF	S15W38	4294
08 Dec	0223	0224	0229		SF	S19W29	4294
08 Dec	0247	0257	0305	C3.6			4296
08 Dec	0247	0255	0326		SF	S15W26	4294
08 Dec	0340	0346	0351	C4.1	SF	S15W39	4294
08 Dec	0417	0427	0432	C6.2	SF	S15W39	4294
08 Dec	0449	0501	0504	X1.1	2B	S14W52	4298
08 Dec	0520	0526	0530	C3.5	SF	N26E02	4304
08 Dec	0606	0606	0613		SF	N20W12	4299
08 Dec	0640	0654	0704	M1.8	1N	N22W09	4304
08 Dec	B0723	U0723	0741		SF	N23W09	4299

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
08 Dec	0753	0753	0804		SF	S17W41	4298
08 Dec	0850	0857	0906	C8.0	SF	S14W56	4298
08 Dec	1219	1228	1236	C5.2	SF	S15W41	4294
08 Dec	1242	1305	1321	M1.0	SF	S16W41	4294
08 Dec	1357	1406	1414	C4.8			4304
08 Dec	1500	1505	1509	C3.7	SF	S20W34	4294
08 Dec	1519	1527	1548	C4.7	SN	S16W42	4294
08 Dec	1758	1811	1822	C2.4			4304
08 Dec	1833	1834	1839		SF	S23E51	
08 Dec	1938	1939	1951		SF	S13W35	4294
08 Dec	2059	2106	2113	M3.1			4294
08 Dec	2114	2115	2132		SF	N28W07	4304
08 Dec	2204	2228	2245	M1.2	SF	N21W25	4299
08 Dec	2234	2237	2242		SF	N27W08	4304
08 Dec	2246	2253	2258		SF	S11W50	4294
08 Dec	2348	2359	0003	C2.6			4298
09 Dec	0019	0030	0037	C4.6	1N	N21W20	4299
09 Dec	0037	0058	0117	M2.0			4299
09 Dec	0127	0159	0220		SF	S16W46	4294
09 Dec	0134	0138	0142	M1.1			4294
09 Dec	0147	0152	0155	C8.0			4294
09 Dec	0234	0236	0239	C2.5			
09 Dec	0445	0445	0448		SF	S15W46	4294
09 Dec	0532	0539	0543	C3.1			
09 Dec	0719	0721	0725	M1.6	SF	S26E45	4294
09 Dec	0913	0914	0925		SF	S14W50	4294
09 Dec	0956	1004	1008	C4.2	SF	S16W49	4294
09 Dec	1129	1142	1148	C6.0	SF	S16W49	4294
09 Dec	1235	1241	1255	C3.9	SF	S16W49	4294
09 Dec	1311	1330	1402	C5.6	SF	S15W55	4294
09 Dec	1446	1514	1631	M1.5	1F	S13W51	4294
09 Dec	1634	1843	1959	C3.8	SF	S13W54	4294
09 Dec	1851	1912	1931	C3.9			4294
09 Dec	2034	2137	2224	C3.4	1F	S14W55	4294
09 Dec	2130	2142	2203	C5.0			4294
09 Dec	2232	2238	2243	C3.7	SF	S23E33	4305
09 Dec	2313	2327	2336	M1.5	SF	S17W44	4296
10 Dec	0056	0128	0151	C7.8	SF	S15W58	4294

Flare List

Date	Time			X-ray	Optical		
	Begin	Max	End	Class	Imp/ Brtns	Location Lat CMD	Rgn #
10 Dec	0231	0247	0254	C8.0	SF	S15W58	4294
10 Dec	0305	0313	0317	C6.5			4304
10 Dec	0317	0324	0330	C9.5			4296
10 Dec	0417	0422	0427	M1.2	SF	S14W60	4294
10 Dec	0457	0503	0507	C4.1	SF	S16W47	4296
10 Dec	0533	0538	0543	C3.1			4294
10 Dec	0615	0626	0634	C3.6			4294
10 Dec	0700	0704	0707	C2.0			4294
10 Dec	0723	0729	0731	C2.5	SF	N23W26	4304
10 Dec	0731	0737	0742	M1.9	1N	S15W62	4294
10 Dec	0946	0955	1002	M1.0			4294
10 Dec	0949	U0952	1010		1F	S22W61	4294
10 Dec	1022	1029	1043	C4.1	SF	S17W68	4294
10 Dec	1127	1132	1138		SF	N23W40	4299
10 Dec	1315	U1316	1322		SF	N23W31	4304
10 Dec	1332	1343	1349	M1.6	SF	S22W62	4294
10 Dec	1456	1505	1514	C3.4			4305
10 Dec	1918	1928	1936	C3.7	SF	S12W55	4296
10 Dec	1958	2004	2007	C2.7	SF	S09W70	4294
10 Dec	2019	2024	2034	C2.7	SF	S10W73	4294
10 Dec	2158	2208	2214	M4.4	2B	S20W66	4294
10 Dec	2249	2251	2253		SF	S20W66	4294
10 Dec	2258	2305	2307	C4.8	SF	S09W74	4294
10 Dec	2302	2303	2307		SF	N25W38	4304
11 Dec	0248	0251	0255	C2.0			4294
11 Dec	0609	0615	0618	C1.7			
11 Dec	0919	0929	0932	C2.4	SF	S19W73	4294
11 Dec	0934	0938	0940	C5.0			4299
11 Dec	1016	1022	1038	C2.4			4294
11 Dec	1206	1212	1214	C2.3			4299
11 Dec	1516	1521	1525	C4.5			4294
11 Dec	1539	1546	1551	C9.7			4294
11 Dec	1708	1711	1714	C2.4			4294
11 Dec	2135	2146	2153	C1.8			4296
11 Dec	2226	2232	2235	C2.3			4294
11 Dec	2335	2345	2353	C2.4	SF	S24E03	4305
12 Dec	0450	0505	0514	M2.0			4296
12 Dec	0527	0544	0553	M1.1			4294

Flare List

Date	Time			Optical			
	Begin	Max	End	X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
12 Dec	0910	0919	0929	C2.6			4294
12 Dec	1343	1348	1352	C2.2			4294
12 Dec	1437	1447	1451	C2.8			4296
12 Dec	1543	1558	1612	C3.5			4294
12 Dec	1722	1757	1829	C3.2			4294
12 Dec	2211	2218	2224	C1.3	SF	S12W05	4307
12 Dec	2331	2341	2347	C1.2			4307
13 Dec	0204	0211	0217	C1.1			4299
13 Dec	0251	0259	0314	C1.2			4296
13 Dec	0356	0359	0402	C1.6			4299
13 Dec	0411	0421	0427	C1.6			4299
13 Dec	0741	0748	0753	C1.5			4308
13 Dec	1036	1051	1102	C8.6			4296
13 Dec	1301	1304	1330	C2.8			4304
13 Dec	1718	1742	1754	C2.1			
13 Dec	1755	1758	1818	C2.4			4304
14 Dec	0012	0038	0056	C1.2			4304
14 Dec	0724	0742	0804	C3.8			4296
14 Dec	0905	0911	0915	C1.2			4304
14 Dec	1223	1235	1254	C1.9			4304
14 Dec	1655	1713	1717	C2.3	SF	S15W30	4307
14 Dec	1804	1812	1816	C1.0			4307
14 Dec	2135	2144	2152	B7.2			4307
14 Dec	2152	2206	2213	B8.7			4307
14 Dec	2213	2217	2225	B8.3			4307

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 4294												
28 Nov	S16E78	296	160	6	Dso	5	B	15	2						
29 Nov	S16E64	297	800	19	Fkc	12	B	6	4		1	1			
30 Nov	S15E55	293	1100	23	Fkc	21	BGD	7							
01 Dec	S15E43	291	1440	18	Fkc	40	BGD	4			1				
02 Dec	S15E31	290	1445	18	Fkc	41	BGD	1			1				
03 Dec	S15E18	290	1445	18	Fkc	55	BGD	1							
04 Dec	S15E04	291	1280	19	Fkc	47	BGD	1			2				
05 Dec	S15W09	291	1000	19	Fkc	29	BGD	6			5				
06 Dec	S15W23	292	850	19	Fkc	32	BGD	5			1	1			
07 Dec	S15W37	292	800	19	Fkc	34	BGD	10			7				
08 Dec	S16W42	284	800	16	Fkc	32	BGD	6	2		9	1			
09 Dec	S17W54	282	800	11	Ekc	23	BGD	6	3		9	2			
10 Dec	S15W69	284	800	14	Ekc	25	BGD	9	5		9	2	1		
11 Dec	S15W81	284	780	14	Ekc	15	BGD	7			1				
12 Dec	S16W93	282	780	9	Dkc	8	BGD	4	1						
								88	17	0	46	7	1	0	0

Crossed West Limb.
Absolute heliographic longitude: 291

			Region 4295												
29 Nov	N04E81	282	plage												
30 Nov	N04E66	282	30	1	Hsx	1	A	1							
01 Dec	N04E51	283	40	1	Hsx	1	A								
02 Dec	N04E40	281	40	2	Hsx	1	A								
03 Dec	N04E25	283	50	3	Cso	4	B								
04 Dec	N04E11	284	40	2	Cao	4	B								
05 Dec	N04W03	285	30	2	Cro	3	B								
06 Dec	N04W18	287	30	2	Cro	3	B								
07 Dec	N04W33	288	10	1	Hax	1	A								
08 Dec	N06W41	283	10	1	Axx	1	A								
09 Dec	N06W56	285	plage												
10 Dec	N06W70	285	plage												
11 Dec	N06W84	286	plage												
								1	0	0	0	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 285

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 4296													
30 Nov	S14E76	271	500	11	Eki	6	B								
01 Dec	S14E62	272	640	12	Eki	12	BG	2			1				
02 Dec	S14E50	271	630	11	Ekc	10	BD	2							
03 Dec	S14E37	271	620	12	Ekc	25	BGD								
04 Dec	S14E23	272	650	12	Ekc	18	BGD	4			1				
05 Dec	S14E10	272	660	11	Eki	8	B	3			2				
06 Dec	S14W04	273	660	11	Eki	8	B								
07 Dec	S14W18	273	680	11	Eki	12	B	4			3				
08 Dec	S14W30	272	500	11	Ekc	14	BD	2							
09 Dec	S15W42	270	420	12	Eki	8	BD		1		1				
10 Dec	S15W55	271	420	11	Eho	5	BD	3			2				
11 Dec	S15W69	272	420	12	Eko	6	BG	1							
12 Dec	S15W83	272	410	12	Eho	5	BG	1	1						
13 Dec	S16W95	272	410	12	Eho	5	BG	2							
								24	2	0	10	0	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 273

		Region 4298													
01 Dec	S16E32	302	110	3	Hsx	3	A								
02 Dec	S16E18	303	120	5	Cao	4	B	2			1				
03 Dec	S16E04	304	110	4	Cso	4	B	1			1				
04 Dec	S16W10	305	100	4	Cso	4	B	2			1				
05 Dec	S18W24	306	100	4	Cso	2	B	1			2				
06 Dec	S18W38	307	110	4	Hsx	1	A	1							
07 Dec	S18W52	307	120	2	Hsx	1	A	2			4				
08 Dec	S16W64	306	60	5	Cso	5	B	1		1	1		1		
09 Dec	S16W76	304	60	4	Cso	3	B								
10 Dec	S16W89	305	60	3	Cso	2	B								
								10	0	1	10	0	1	0	0

Crossed West Limb.
Absolute heliographic longitude: 304

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 4299												
30 Nov	N22E82	266	plage					1							
01 Dec	N22E68	266	150	9	Dai	9	BG			1					
02 Dec	N22E54	266	150	8	Dac	9	BD								
03 Dec	N23E42	266	140	8	Dao	15	BD	2			1				
04 Dec	N23E28	267	200	8	Dao	6	BD								
05 Dec	N21E15	267	190	7	Dao	3	BD	2			3				
06 Dec	N21E01	268	210	7	Dao	10	BD	1	2		4	1	1		
07 Dec	N21W13	268	220	7	Dai	10	BD		1						
08 Dec	N22W25	267	130	9	Dai	7	BD		1		2		1		
09 Dec	N22W38	266	40	9	Cao	6	BD		1						
10 Dec	N21W50	266	20	9	Cro	6	B				1				
11 Dec	N22W64	266	10	4	Bxo	4	B	2							
12 Dec	N23W78	267	10	4	Bxo	4	B								
								8	5	1	11	1	2	0	0

Crossed West Limb.
Absolute heliographic longitude: 268

			Region 4300												
02 Dec	N07E67	254	40	6	Cso	3	B								
03 Dec	N07E53	255	30	5	Csi	6	BG								
04 Dec	N07E39	256	30	5	Cso	5	B		1			1			
05 Dec	N08E25	257	20	2	Cso	2	B								
06 Dec	N08E11	258	20	2	Cso	2	B				1				
07 Dec	N08W03	258	10	2	Hsx	1	A								
08 Dec	N08W17	259	10	1	Axx	1	A								
09 Dec	N08W31	260	10	1	Axx	1	A								
10 Dec	N08W45	260	plage												
11 Dec	N08W59	261	plage												
12 Dec	N08W73	262	plage												
13 Dec	N08W87	263	plage												
								0	1	0	1	1	0	0	0

Crossed West Limb.
Absolute heliographic longitude: 258

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 4303												
07 Dec	S27E53	202	30	4	Cro	4	B								
08 Dec	S27E38	204	20	3	Cso	3	B								
09 Dec	S27E23	205	10	1	Hsx	1	A								
10 Dec	S27E10	206	10	1	Axx	1	A								
11 Dec	S25W04	206	plage												
12 Dec	S25W18	207	plage												
13 Dec	S25W32	208	plage												
14 Dec	S25W46	209	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 206

			Region 4304												
08 Dec	N26W08	250	20	7	Cro	3	B	3	1		2	1			
09 Dec	N26W23	251	50	8	Dao	7	B								
10 Dec	N26W36	252	70	8	Cai	15	BG	2			3				
11 Dec	N26W49	252	110	7	Cai	6	BG								
12 Dec	N26W63	252	90	7	Dao	10	B								
13 Dec	N26W74	250	50	7	Cao	3	B	2							
14 Dec	N26W85	248	60	7	Dai	5	B	3							
								10	1	0	5	1	0	0	0

Still on Disk.
Absolute heliographic longitude: 250

			Region 4305												
09 Dec	S25E34	195	20	5	Cro	5	B	1							
10 Dec	S25E20	196	70	7	Dai	10	BG	1							
11 Dec	S25E06	196	140	8	Dao	8	B	1			1				
12 Dec	S25W07	196	130	8	Dai	12	B								
13 Dec	S25W23	199	80	4	Hax	3	A								
14 Dec	S25W36	199	70	5	Hax	5	A								
								3	0	0	1	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 196

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 4306												
11 Dec	S16W28	231	10	4	Bxo	5	B								
12 Dec	S16W42	232	plage												
13 Dec	S16W56	232	plage												
14 Dec	S16W70	233	plage												
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 231

			Region 4307												
11 Dec	S11E08	195	30	4	Dro	9	B								
12 Dec	S12W05	195	50	5	Dri	11	BG	2			1				
13 Dec	S13W19	195	30	6	Dri	9	B								
14 Dec	S13W34	197	70	7	Dai	12	B	2			1				
								4	0	0	2	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 195

			Region 4308												
12 Dec	N08E59	131	20	4	Bxo	4	B								
13 Dec	N07E45	131	20	5	Cro	6	B	1							
14 Dec	N06E31	132	20	5	Cro	4	B								
								1	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 132

			Region 4309												
14 Dec	S09W33	195	10	3	Bxo	2	B								
								0	0	0	0	0	0	0	0

Still on Disk.
Absolute heliographic longitude: 195

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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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