

Solar activity ranged from low to high levels during the period with Region 1974 (S12, L=354, class/area Fkc/990 on 14 February) as the major source of flaring activity during the period. Region 1974 continued its growth and development phase during its transit and quickly became the largest and most magnetically complex (beta-gamma-delta) region on the visible disk. This region was responsible for a total of 33 C-class flares and 14 M-class flares.

The period began on 10 February at low levels with mostly low level C-class activity mainly attributable to Region 1974. By 11-12 February, solar activity increased to moderate levels as Region 1974 produced 5 M-class flares including an M1/1n flare at 11/0331 UTC and an M3/2n flare (the largest of the period) at 12/0425 UTC. The M1/1n flare on 11 February was associated with Type II (873 km/s) and IV radio sweeps as well as a faint, asymmetric halo coronal mass ejection (CME) with an approximate speed of 480 km/s. A 15 degree filament eruption was observed lifting off the visible disk at approximately 11/0332 UTC. The filament eruption was associated with a partially Earth-directed CME with an estimated speed of 776 km/s. The M3/2n flare, observed on 12 February, was also associated with a halo CME with an estimated speed near 743 km/s. Solar activity reached high levels on 13 February as Region 1974 produced 5 M1 flares. Moderate levels continued on 14 February as Region 1974 produced 4 M-class flares including an M1/Sb flare at 14/1639 UTC with an associated Tenflare (200 sfu). Low levels were observed on 15 February. By 16 February, moderate levels were once again reached as Region 1977 (S09, L=290, class/area Ekc/460 on 13 February) produced an M1/Sn at 16/0926 UTC with an associated Type IV radio sweep. An associated partial halo CME (estimated speed of 425 km/s) appeared in SOHO/LASCO C2 imagery at 16/1325 UTC with a weak Earth-directed component.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 10 February and again from 13-15 February. Moderate levels were observed on 11-12 February with normal levels observed on 16 February.

The geomagnetic field began the period under the influence of a negative polarity coronal hole high speed stream (CH HSS). Solar wind speeds increased to 570 km/s briefly by late on 10 February with total field measurements from 5 nT to 7 nT. Quiet to active conditions were observed on 10 February as a result. Solar wind conditions slowly decreased over the next few days to nominal levels. Quiet to unsettled levels were observed on 11 and 12 February with quiet levels on 13 and 14 February. At 15/1234 UTC, an interplanetary shock was observed at the ACE spacecraft indicating the arrival of a combination of CMEs from 11 and 12 February. Solar wind speed increased from 400 km/s to 487 km/s with the total field increasing from 6 nT to 16 nT. The Bz component was mostly north near +15 nT the majority of the period with short deviations southward near -13 nT. A geomagnetic sudden impulse of 23 nT was observed at the Hartland magnetometer at 15/1311 UTC. Mostly unsettled conditions continued from mid day on 15 February with a minor storm period observed late in the period. By 16 February, CME effects



continued to influence the geomagnetic field with solar wind speed declining to near 366 km/s by the end of the period. Total field ranged from 2 nT to 17 nT with the Bz component between +17 nT and -10 nT. The geomagnetic field responded with quiet to minor storm levels.

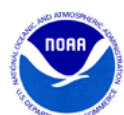
Space Weather Outlook 17 February - 15 March 2014

Solar activity is expected to be at low to moderate conditions through the period. An increase to a chance for X-flare activity is expected from 22 February through 07 March with the return of old Regions 1967 (S12, L=112) and 1968 (N09, L=109).

A slight chance exists for a greater than 10 MeV proton event due to potential flare activity from old Region 1967 as it rotates across the visible disk from 22 February through 07 March.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels through the period with a chance for high levels on 17-18 February due to CME effects and again on 09-10 March due to CH HSS influence.

Geomagnetic field activity is expected to be mostly quiet through the period. Quiet to unsettled periods are expected on 20-21 February due to a possible glancing blow from the 16 February CME. Quiet to unsettled levels are also expected on 25 February, 09 March, and 11 March due to CH HSS effects.



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
10 February	161	122	940	C1.1	5	0	0	4	0	0	0	0
11 February	172	151	1100	C1.3	2	2	0	6	3	1	0	0
12 February	160	187	1260	C1.5	5	3	0	12	1	2	0	0
13 February	167	157	1710	C1.8	9	5	0	16	4	1	0	0
14 February	167	196	1785	C1.0	11	4	0	19	2	1	0	0
15 February	162	135	1410	B8.3	6	0	0	6	0	0	0	0
16 February	154	137	1410	B7.2	9	1	0	9	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	>100 MeV	>0.6 MeV	>2MeV	>4 MeV
	10 February	1.4e+05	1.0e+04	2.6e+03		3.6e+07
11 February	1.6e+05	1.0e+04	2.5e+03		3.9e+07	
12 February	1.5e+05	1.1e+04	2.3e+03		2.8e+07	
13 February	2.8e+05	1.1e+04	2.5e+03		7.6e+07	
14 February	4.5e+05	1.2e+04	2.6e+03		5.8e+07	
15 February	2.6e+06	1.2e+04	2.4e+03		4.1e+07	
16 February	3.9e+05	9.3e+03	2.1e+03		1.3e+05	

Daily Geomagnetic Data

Date	Middle Latitude Fredericksburg		High Latitude College		Estimated Planetary	
	A	K-indices	A	K-indices	A	K-indices
	10 February	9	2-2-1-2-1-1-4-3	8	2-1-2-3-1-1-3-2	12
11 February	3	1-1-1-0-1-1-1-2	3	2-1-1-1-0-0-1-2	6	2-2-2-1-1-0-1-3
12 February	5	3-2-1-1-1-2-1-0	6	3-0-0-0-0-2-1-1	9	3-3-2-1-1-2-2-1
13 February	2	0-0-0-1-1-1-1-0	0	0-0-0-0-0-0-0-0	3	1-0-1-1-0-0-1-0
14 February	4	0-0-1-1-3-2-1-1	0	0-0-0-0-0-0-0-0	4	0-0-1-1-2-1-1-1
15 February	7	0-0-0-0-3-2-2-4	6	0-0-0-0-2-3-2-3	11	0-1-0-0-3-3-3-5
16 February	14	4-3-2-2-3-3-3-2	16	3-2-2-3-3-5-3-2	22	5-3-2-2-3-4-4-3

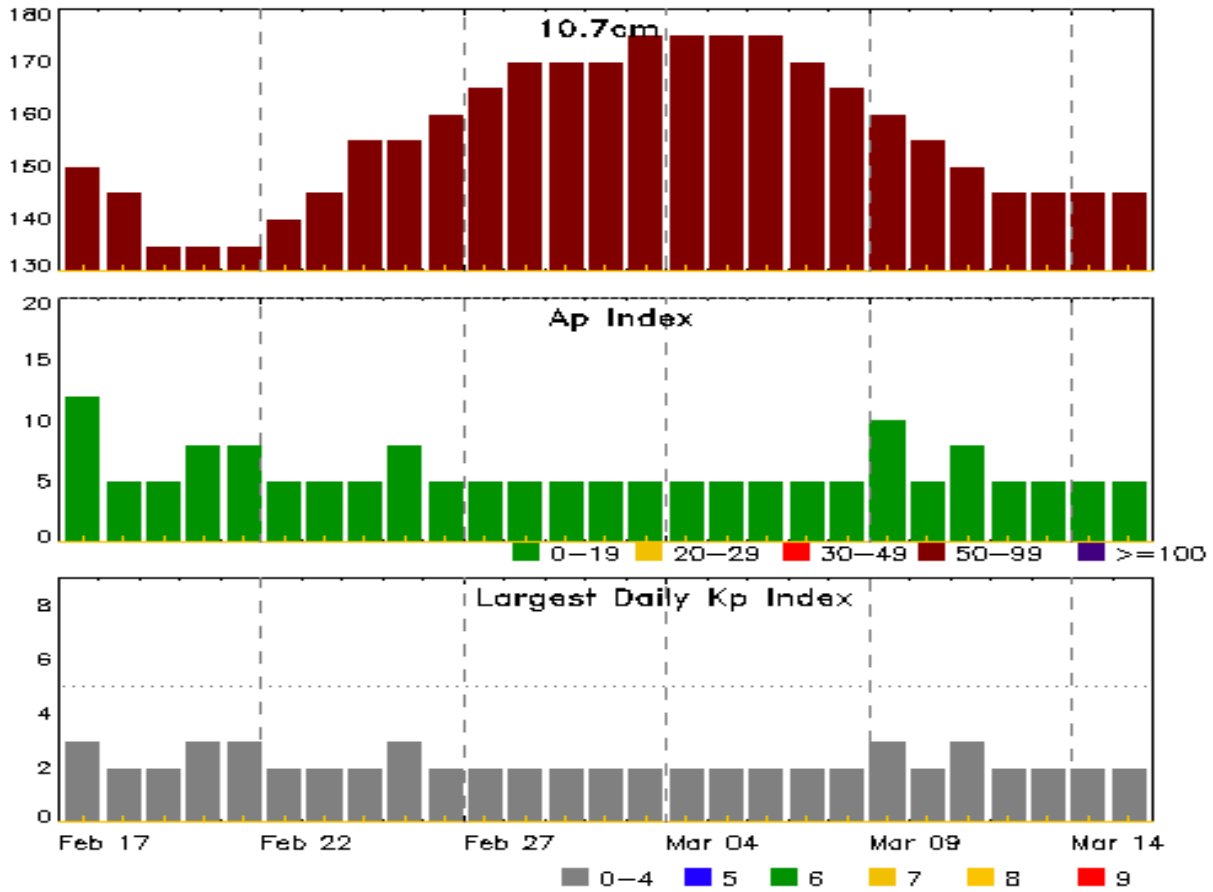


Alerts and Warnings Issued

Date & Time of Issue UTC	Type of Alert or Warning	Date & Time of Event UTC
10 Feb 1531	ALERT: Electron 2MeV Integral Flux \geq 1000pfu	10/1515
10 Feb 2004	WARNING: Geomagnetic K = 4	10/2000 - 11/0100
10 Feb 2006	ALERT: Geomagnetic K = 4	10/2000
11 Feb 0046	EXTENDED WARNING: Geomagnetic K = 4	10/2000 - 11/0700
11 Feb 0450	ALERT: Type II Radio Emission	11/0333
11 Feb 0521	ALERT: Type IV Radio Emission	11/0333
11 Feb 1353	ALERT: Type II Radio Emission	11/1327
12 Feb 0102	WARNING: Geomagnetic K = 4	12/0103 - 0700
12 Feb 1822	WATCH: Geomagnetic Storm Category G1 predicted	
12 Feb 2028	WATCH: Geomagnetic Storm Category G2 predicted	
13 Feb 1219	ALERT: Electron 2MeV Integral Flux \geq 1000pfu	13/1140
14 Feb 1336	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	13/1140
14 Feb 1658	SUMMARY: 10cm Radio Burst	14/1636 - 1637
15 Feb 1244	WARNING: Geomagnetic Sudden Impulse expected	15/1300 - 1400
15 Feb 1324	WARNING: Geomagnetic K = 4	15/1323 - 16/0100
15 Feb 1326	SUMMARY: Geomagnetic Sudden Impulse	15/1311
15 Feb 1351	CONTINUED ALERT: Electron 2MeV Integral Flux \geq 1000pfu	13/1140
15 Feb 2210	ALERT: Geomagnetic K = 4	15/2206
15 Feb 2224	WARNING: Geomagnetic K = 5	15/2223 - 16/0300
15 Feb 2225	EXTENDED WARNING: Geomagnetic K = 4	15/1323 - 16/1300
16 Feb 0003	ALERT: Geomagnetic K = 5	15/2359
16 Feb 0253	EXTENDED WARNING: Geomagnetic K = 5	15/2223 - 16/0900
16 Feb 1100	ALERT: Type IV Radio Emission	16/1009
16 Feb 1301	EXTENDED WARNING: Geomagnetic K = 4	15/1323 - 16/2300
16 Feb 1808	ALERT: Geomagnetic K = 4	16/1808
16 Feb 2245	EXTENDED WARNING: Geomagnetic K = 4	15/1323 - 17/1300



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
17 Feb	150	12	3	03 Mar	175	5	2
18	145	5	2	04	175	5	2
19	135	5	2	05	175	5	2
20	135	8	3	06	175	5	2
21	135	8	3	07	170	5	2
22	140	5	2	08	165	5	2
23	145	5	2	09	160	10	3
24	155	5	2	10	155	5	2
25	155	8	3	11	150	8	3
26	160	5	2	12	145	5	2
27	165	5	2	13	145	5	2
28	170	5	2	14	145	5	2
01 Mar	170	5	2	15	145	5	2
02	170	5	2				



Energetic Events

Date	Time			X-ray		Optical Information			Peak		Sweep Freq	
	Begin	Max	Half	Class	Integ Flux	Imp/ Brtns	Location Lat CMD	Rgn #	Radio Flux		Intensity	
			Max						245	2695	II	IV
11 Feb	0322	0331	0339	M1.7	0.012	1N	S12E17	1974	920	140	2	1
11 Feb	1634	1651	1710	M1.8	0.029			1974	270			
12 Feb	0352	0425	0438	M3.7	0.043	2N	S12W02	1974				
12 Feb	0654	0658	0704	M2.3	0.010			1974				
12 Feb	1541	1551	1615	M2.1	0.029			1974	160	40		
13 Feb	0132	0140	0150	M1.8	0.014	2F	S12W09	1974				
13 Feb	0241	0251	0304	M1.0	0.011			1974				
13 Feb	0549	0607	0613	M1.7	0.010			1974				
13 Feb	0805	0812	0819	M1.0	0.005	1N	S12W13	1974				
13 Feb	1545	1557	1606	M1.4	0.012	SF	S13W24	1974				
14 Feb	0240	0257	0310	M2.3	0.024	2F	S12W25	1974	2300			
14 Feb	1229	1240	1245	M1.6	0.008	1N	S15W36	1974		59		
14 Feb	1321	1328	1339	M1.1	0.008			1974				
14 Feb	1633	1639	1642	M1.0	0.003	SB	S13W32	1974	810	200		
16 Feb	0920	0926	0929	M1.1	0.003	SN	S11E01	1977	2400	92		1

Flare List

Date	Time			X-ray Class	Imp/ Brtns	Location Lat CMD	Rgn #
	Begin	Max	End				
10 Feb	0254	0258	0302	C2.5	SF	S14E24	1974
10 Feb	0504	0516	0523		SF	S12E30	1974
10 Feb	0937	0937	0940		SF	S11E22	1974
10 Feb	1308	1312	1321	C2.1			1974
10 Feb	1405	1409	1414	C1.8			
10 Feb	1646	1652	1658	C2.5			
10 Feb	1914	1917	1919	C1.7			1973
10 Feb	2004	2009	2024		SF	S13E21	1974
11 Feb	0205	0206	0212		SF	S12E17	1974
11 Feb	0314	0333	0400	M1.7	1N	S12E17	1974
11 Feb	0437	0440	0446		SF	S12E15	1974
11 Feb	B0849	U0858	A0858		SF	S13E15	1974
11 Feb	B1311	U1311	A1334	C8.4	SF	S11E11	1974
11 Feb	B1346	U1346	A1423		1F	S11E11	1974
11 Feb	1424	1533	1549		2F	S13E21	1974
11 Feb	1553	1615	1942		SF	S13E21	1974



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
11 Feb	1634	1651	1710	M1.8			1974
11 Feb	2201	2215	2224	C5.9	1F	S13E01	1974
11 Feb	2336	2337	2359		SF	S12E01	1974
12 Feb	0003	0017	0022		SF	S13E01	1974
12 Feb	0024	0041	0121		SF	S12E01	1974
12 Feb	0126	0126	0136		SF	S13E01	1974
12 Feb	0352	0425	0438	M3.7	2N	S12W02	1974
12 Feb	0654	0658	0704	M2.3			1974
12 Feb	B0712	U0719	0909		2F	S13W01	1974
12 Feb	B0722	U0724	A0736		SF	S13W48	1971
12 Feb	0939	0947	1002		SF	S12W01	1974
12 Feb	1229	1234	1239	C7.9			1973
12 Feb	1541	1551	1615	M2.1			1974
12 Feb	1638	1730	1749		SF	S11W06	1974
12 Feb	1824	1834	1908		SF	S12W07	1974
12 Feb	1938	1951	2005	C4.8	SF	S12W07	1974
12 Feb	2022	2026	2030		SF	S12W07	1974
12 Feb	2033	2034	2037		SF	S12W07	1974
12 Feb	2110	2130	2201	C5.9	1F	S12W08	1974
12 Feb	2215	2223	2246	C2.6	SF	S12W09	1974
12 Feb	2257	2257	2300	C5.9	SF	S12W09	1974
13 Feb	B0016	0139	0357		2F	S12W09	1974
13 Feb	0016	0139	0313		1N	S12W09	1974
13 Feb	0035	0052	0106	C3.2			1974
13 Feb	0132	0140	0150	M1.8			1974
13 Feb	0214	0218	0224	C5.4			1974
13 Feb	0225	0229	0232	C7.4			1974
13 Feb	0241	0251	0304	M1.0			1974
13 Feb	0352	0403	0423		SF	S12W09	1974
13 Feb	0533	0536	0540	C2.8			1974
13 Feb	0549	0607	0613	M1.7			1974
13 Feb	B0637	U0640	A0642		SF	S12W15	1974
13 Feb	0643	0813	0942		1N	S12W15	1974
13 Feb	0704	0710	0730	C3.6	SF	S08E51	1977
13 Feb	0805	0812	0819	M1.0	1N	S12W13	1974
13 Feb	0838	0839	0842		SF	S12W14	1974
13 Feb	0851	0901	0903		SF	S12W14	1974
13 Feb	0928	0934	0936		SF	S12W14	1974



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
13 Feb	0951	U0958	A1015		SF	S14W14	1974
13 Feb	B1022	U1036	1055	C8.4	SN	S14W16	1974
13 Feb	1123	1125	1128		SF	S14W16	1974
13 Feb	1233	1242	1316	C3.0	SF	S14W17	1974
13 Feb	1431	1431	1435		SF	S13W19	1974
13 Feb	1545	1557	1606	M1.4	SF	S13W24	1974
13 Feb	B1833	2009	2050		1F	S13W21	1974
13 Feb	1950	1955	1958	C6.6			1974
13 Feb	2127	2136	2144	C2.7	SF	S13W22	1974
13 Feb	2156	2158	2215		SF	S13W22	1974
13 Feb	2219	2221	2305		SF	S13W23	1974
13 Feb	2325	2337	2353		SF	S11W23	1974
14 Feb	0146	0153	0157	C2.2	SF	S12W25	1974
14 Feb	0240	0257	0310	M2.3	2F	S12W25	1974
14 Feb	0414	0418	0421	C1.7	SF	S12W23	1974
14 Feb	0425	0430	0433	C6.6	SF	S12W27	1974
14 Feb	0639	0646	0655	C3.8	SF	S11W29	1974
14 Feb	0735	0738	0743	C3.3	SF	S12W28	1974
14 Feb	0859	0905	0912	C2.2			1974
14 Feb	B0950	U0951	A0959		SF	S13W30	1974
14 Feb	1006	1012	1019	C2.6	SF	S13W30	1974
14 Feb	B1032	U1049	1120	C7.2	1F	S13W30	1974
14 Feb	1100	1101	1142		SF	S10E35	1977
14 Feb	1229	1240	1245	M1.6	1N	S15W36	1974
14 Feb	1256	1259	1304		SF	S07E32	1977
14 Feb	1321	1328	1339	M1.1			1974
14 Feb	B1341	U1342	1359		SF	S13W32	1974
14 Feb	B1416	1420	1423		SF	S13W30	1974
14 Feb	1427	1430	1431		SF	S13W30	1974
14 Feb	1433	1435	1439		SF	S13W30	1974
14 Feb	1633	1639	1642	M1.0	SB	S13W32	1974
14 Feb	1649	1652	1659	C3.6	SF	S11W73	1971
14 Feb	1719	1724	1734	C6.6	SN	S13W32	1974
14 Feb	1931	1935	1939	C1.7	SF	S13W32	1974
14 Feb	2037	2049	2050		SF	S13W32	1974
14 Feb	2317	2318	2332		SF	S11W38	1974
15 Feb	0136	0203	0213	C2.1			1974
15 Feb	0144	U0145	A0200		SF	S06W43	1974



Flare List

Date	Time			X-ray Class	Optical		Rgn #
	Begin	Max	End		Imp/ Brtns	Location Lat CMD	
15 Feb	0310	0318	0328	C2.3			1973
15 Feb	0549	0553	0558	C2.2			1974
15 Feb	0825	0828	0839	C1.3	SF	S13W43	1974
15 Feb	0950	0950	1001		SF	S13E18	1977
15 Feb	1357	1359	1407		SF	S11W44	1974
15 Feb	2012	2012	2017		SF	S13W56	1974
15 Feb	2135	2141	2151	C1.7			1973
15 Feb	2241	2244	2248	C1.6	SF	N10W79	1973
16 Feb	0204	0207	0209	C1.2	SF	S11W52	1974
16 Feb	0248	0255	0320	C2.3			1973
16 Feb	0504	0505	0513	C1.2	SF	S12W55	1974
16 Feb	0526	0543	0555	C1.3			1973
16 Feb	0642	0646	0651	C1.5	SF	S12W55	1974
16 Feb	0920	0926	0929	M1.1	SN	S11E01	1977
16 Feb	1348	1400	1405	C3.4			1977
16 Feb	1528	1529	1532		SF	S10W03	1977
16 Feb	1654	1659	1704	C1.5	SF	S12E04	1977
16 Feb	1735	1738	1740	C1.2	SF	S10W04	1977
16 Feb	1825	1825	1830		SF	S10W61	1974
16 Feb	1920	1925	1928	C1.7	SF	S11W05	1977



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 1967																		
27 Jan	S14E76	117	120	6	Dso	1	B	3	3									
28 Jan	S12E67	113	580	15	Eki	13	BG	5	7		5	2						
29 Jan	S14E55	111	980	18	Fkc	29	BGD	6			5							
30 Jan	S14E41	112	1190	19	Fkc	42	BGD	6	3		4		1					
31 Jan	S14E29	112	1000	18	Fkc	49	BGD	5			2							
01 Feb	S13E16	112	1410	18	Fkc	86	BGD	6	2		7	2						
02 Feb	S13E01	114	1510	18	Fkc	94	BGD	2	5		16	2						
03 Feb	S13W12	114	1490	18	Fkc	88	BGD	9			13							
04 Feb	S12W24	112	1580	18	Fkc	73	BGD	8	3		4	3						
05 Feb	S12W38	113	1500	19	Fkc	82	BGD	5	1		8							
06 Feb	S13W51	112	1570	22	Fkc	51	BGD	3	1		2							
07 Feb	S13W64	112	1260	22	Fkc	52	BGD	3	1		9		1					
08 Feb	S13W77	113	830	17	Fkc	19	BGD	6										
09 Feb	S13W89	112	630	13	Ekc	9	BGD	2			2							
								70	26	0	77	9	2	0	0			

Crossed West Limb.

Absolute heliographic longitude: 114

Region 1968																		
27 Jan	N10E75	119	60	2	Dso	1	B	2										
28 Jan	N10E65	115	100	12	Eao	5	B	1			1							
29 Jan	N09E54	112	210	11	Eao	11	B	1			1							
30 Jan	N09E41	112	160	11	Eao	12	BG				1							
31 Jan	N10E29	112	210	11	Eai	18	BG		1									
01 Feb	N10E15	113	220	12	Eai	28	BG	1										
02 Feb	N10E03	112	300	13	Ekc	35	BG	8	2		15	1						
03 Feb	N10W09	110	320	14	Ekc	33	BG	2			3							
04 Feb	N09W22	110	330	15	Ekc	49	BG	3	1		8							
05 Feb	N09W36	111	430	13	Ekc	49	BG	3			6							
06 Feb	N09W48	109	740	11	Ekc	57	BG	3			4	1						
07 Feb	N13W59	107	620	11	Ekc	56	BG	2	1		3	1						
08 Feb	N11W72	108	450	12	Ekc	34	BG	1			1							
09 Feb	N11W85	108	390	12	Ekc	16	BG											
								27	5	0	43	3	0	0	0			

Crossed West Limb.

Absolute heliographic longitude: 112



Region Summary - continued

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

Region 1970

02 Feb	S18E54	61	80	4	Dao	4	B					1					
03 Feb	S20E40	60	30	4	Dro	4	B										
04 Feb	S18E26	61	20	3	Cro	4	B										
05 Feb	S18E12	63	20	4	Cro	6	B										
06 Feb	S17W02	63	10	2	Axx	4	A										
07 Feb	S17W16	64	10	1	Axx	1	A										
08 Feb	S17W30	66	plage														
09 Feb	S17W44	67	plage														
10 Feb	S17W58	68	plage														
11 Feb	S17W72	68	plage														
12 Feb	S17W86	69	plage														
										0	0	0	1	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 63

Region 1971

04 Feb	S11E59	29	10	4	Bxo	3	B										
05 Feb	S12E43	32	50	6	Cso	11	B										
06 Feb	S12E26	35	100	5	Dso	20	B										
07 Feb	S12E12	36	80	8	Dso	19	B										
08 Feb	S12W00	36	70	8	Dao	12	B										
09 Feb	S12W15	38	70	9	Cao	12	B										
10 Feb	S11W30	40	40	3	Cao	4	B										
11 Feb	S12W46	41	10	1	Axx	2	A										
12 Feb	S12W59	41	30	3	Cso	3	B					1					
13 Feb	S11W72	40	40	3	Cso	3	B										
14 Feb	S12W85	42	30	1	Hsx	1	A	1				1					
								1	0	0	2	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 36



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Lon	Helio 10 ⁶ hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
									C	M	X	S	1	2	3	4		
Region 1972																		
05 Feb	S13W10	85	0	1	Axx	1	A											
06 Feb	S12W31	88	10	2	Bxo	2	B	1				2						
07 Feb	S12W40	88	30	6	Cso	6	B											
08 Feb	S12W53	89	plage															
09 Feb	S12W67	90	plage															
10 Feb	S12W81	91	plage															
								1	0	0	2	0	0	0	0	0		

Crossed West Limb.

Absolute heliographic longitude: 85

Region 1973																		
05 Feb	N06E63	12	30	2	Cro	2	B											
06 Feb	N06E51	10	30	4	Cro	6	B											
07 Feb	N05E37	11	60	8	Dso	11	B					2						
08 Feb	N05E24	12	100	6	Dso	9	B					1						
09 Feb	N06E10	13	130	8	Dso	13	B											
10 Feb	N03W03	12	100	6	Cao	12	B	1										
11 Feb	N04W18	13	50	7	Cao	13	B											
12 Feb	N04W32	15	40	4	Cso	7	B	1										
13 Feb	N16W43	12	30	6	Cso	4	B											
14 Feb	N06W57	14	20	1	Hax	1	A											
15 Feb	N06W72	16	10	1	Axx	1	A	3				1						
16 Feb	N06W87	18	10	1	Axx	2	A	2										
								7	0	0	4	0	0	0	0	0		

Still on Disk.

Absolute heliographic longitude: 12



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Lon	Helio 10 ⁶ hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
									C	M	X	S	1	2	3	4		
Region 1974																		
05 Feb	S11E76		359	40	5	Hsx	1	A										
06 Feb	S12E62		358	170	8	Dso	13	B										
07 Feb	S13E51		357	210	15	Esc	26	BG										
08 Feb	S13E37		359	200	12	Esi	33	BG										
09 Feb	S12E23		360	220	15	Esi	34	BG	1									
10 Feb	S13E12		356	220	17	Fsi	25	BG	2			4						
11 Feb	S12E01		354	320	16	Fsc	42	BGD	2	2		6	3	1				
12 Feb	S12W12		354	460	16	Fkc	65	BGD	4	3		11	1	2				
13 Feb	S07W25		353	780	17	Fkc	47	BGD	8	5		15	4	1				
14 Feb	S12W37		354	990	16	Fkc	89	BGD	10	4		16	2	1				
15 Feb	S12W52		356	760	16	Fkc	47	BGD	3			4						
16 Feb	S12W66		357	760	16	Fkc	47	BGD	3			4						
									33	14	0	60	10	5	0	0		

Still on Disk.

Absolute heliographic longitude: 354

Region 1975

08 Feb	S15W37		73	40	5	Cso	6	B				2						
09 Feb	S15W50		73	80	9	Dac	17	BG	1			4						
10 Feb	S14W63		72	110	10	Dai	9	B										
11 Feb	S14W76		72	90	12	Eso	5	B										
12 Feb	S13W88		70	50	11	Hsx	1	A										
									1	0	0	6	0	0	0	0	0	

Crossed West Limb.

Absolute heliographic longitude: 73

Region 1976

08 Feb	S15E78		318	80	8	Dao	3	B	1									
09 Feb	S15E63		320	240	13	Eac	9	BG										
10 Feb	S14E53		315	390	14	Eki	11	BG										
11 Feb	S15E40		315	310	15	Eki	10	BG										
12 Feb	S14E27		315	340	14	Eko	13	BG										
13 Feb	S15E13		315	370	16	Fki	15	BG										
14 Feb	S15W03		320	210	5	Dso	5	B										
15 Feb	S15W17		321	230	5	Dso	6	B										
16 Feb	S15W29		320	230	5	Cso	6	B										
									1	0	0	0	0	0	0	0	0	

Still on Disk.

Absolute heliographic longitude: 320



Region Summary - continued

Date	Location		Sunspot Characteristics				Flares											
	Lat CMD	Lon	Helio 10 ⁶ hemi.	Area	Extent (helio)	Spot Class	Spot Count	Mag Class	X-ray			Optical						
									C	M	X	S	1	2	3	4		
Region 1977																		
10 Feb	S11E77	291	80	5	Hsx	1	A											
11 Feb	S11E65	290	270	12	Eao	4	B											
12 Feb	S09E52	289	290	14	Eko	9	B											
13 Feb	S09E38	290	460	14	Ekc	16	BG	1				1						
14 Feb	S10E26	291	410	14	Ekc	21	BG					2						
15 Feb	S10E12	292	320	11	Ekc	30	BG					1						
16 Feb	S10W02	293	320	11	Ekc	30	BG	4	1			5						
								5	1	0		9	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 293

Region 1978

11 Feb	N05W39	35	50	5	Dso	5	B											
12 Feb	N06W51	34	40	7	Dao	7	B											
13 Feb	N07W66	34	30	8	Dao	12	B											
14 Feb	N06W79	36	10	6	Bxo	5	B											
								0	0	0		0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 35

Region 1979

12 Feb	N14W40	22	10	2	Bxo	2	B											
13 Feb	N13W54	24	plage															
14 Feb	N13W68	25	plage															
15 Feb	N13W82	26	plage															
								0	0	0		0	0	0	0	0	0	0

Crossed West Limb.

Absolute heliographic longitude: 22

Region 1980

14 Feb	S14E06	311	115	6	Dao	4	B											
15 Feb	S14W06	310	90	3	Hsx	1	A											
16 Feb	S14W20	311	90	3	Hax	2	A											
								0	0	0		0	0	0	0	0	0	0

Still on Disk.

Absolute heliographic longitude: 311

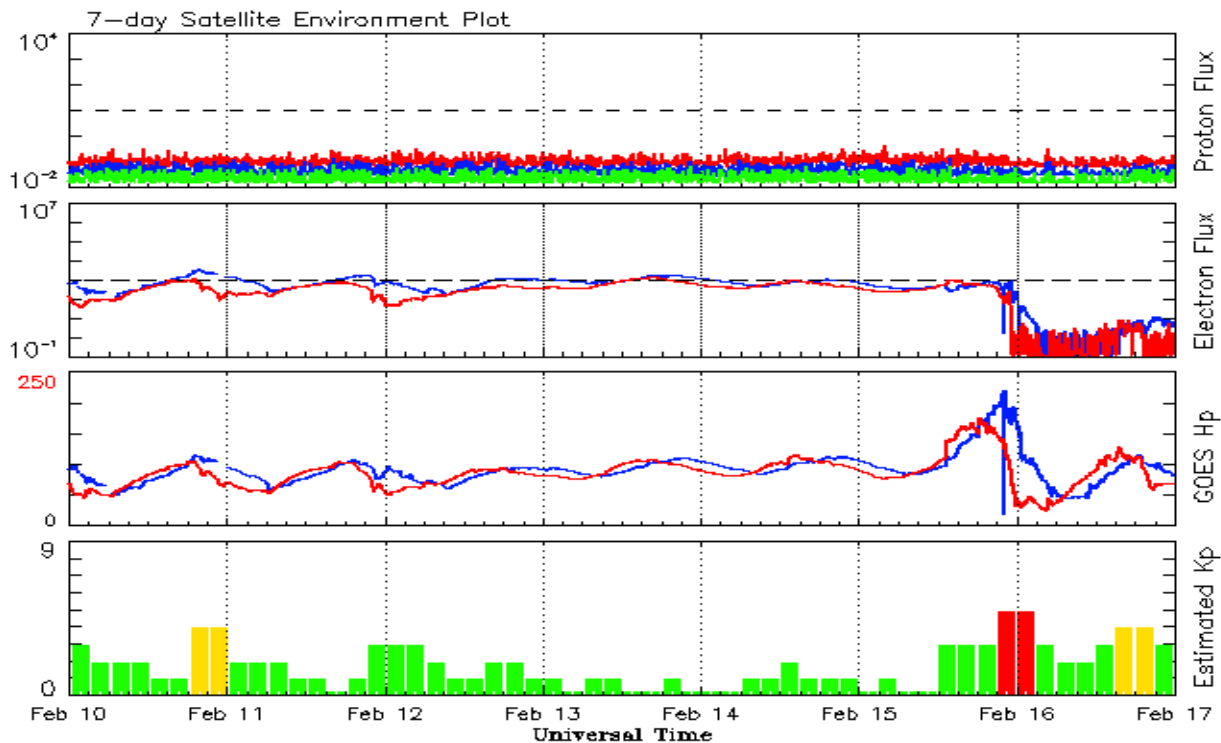


Recent Solar Indices (preliminary)
Observed monthly mean values

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
2012									
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	57.6	111.2	117.1	9	7.4
April	112.8	72.4	0.64	86.7	57.9	125.0	116.6	5	7.2
May	125.5	78.7	0.63	90.5	59.9	131.3	118.1	10	7.0
June	80.1	52.5	0.66	94.4	62.6	110.2	120.9	13	7.1
July	86.1	57.0	0.66	97.9	65.5	115.6	123.9	9	7.3
August	90.2	66.0	0.73			114.7		9	
September	55.0	37.0	0.67			102.7		5	
October	127.1	85.6	0.67			132.3		7	
November	125.7	77.6	0.62			148.4		5	
December	118.2	90.3	0.76			147.7		5	
2014									
January	125.9	82.0	0.65			158.6		6	

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 10 February 2014*

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.

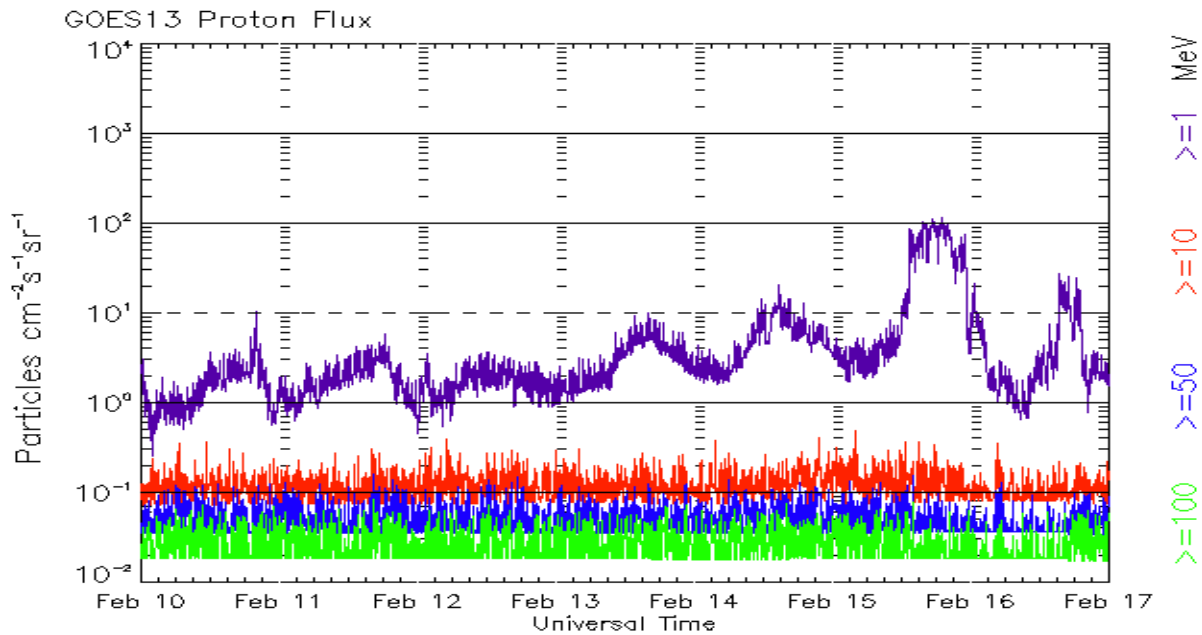
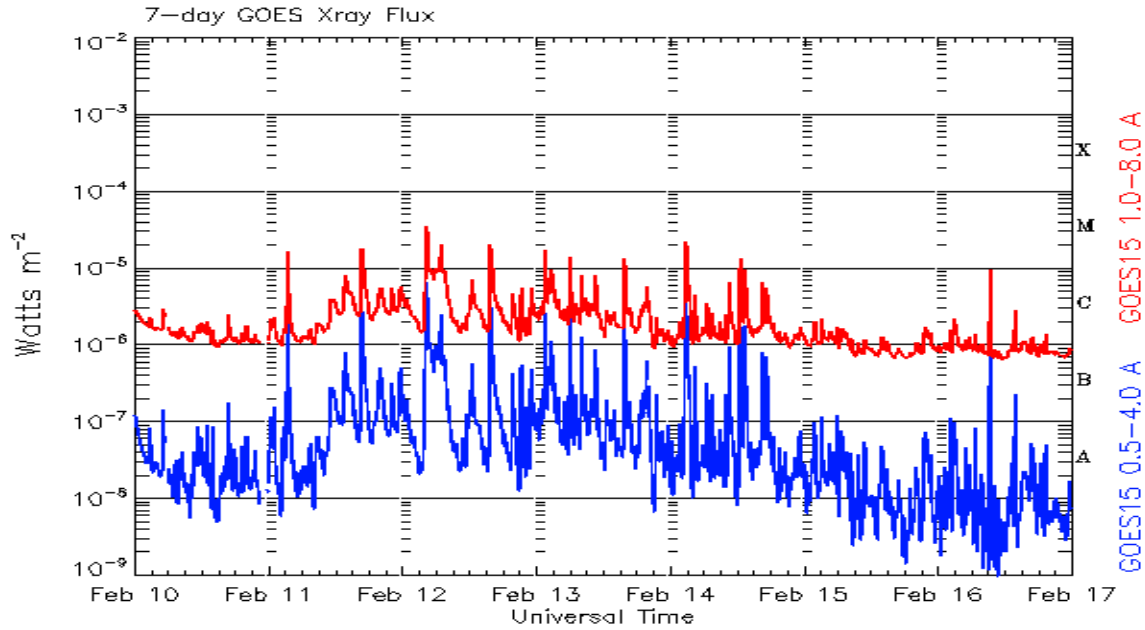
The electron flux plot contains the five-minute averaged integral electron flux (electrons/cm²-sec -sr) with energies greater than 2 MeV by the SWPC Primary GOES satellite.

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.

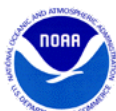




*Weekly GOES Satellite X-ray and Proton Plots
Week Beginning 10 February 2014*

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 intergral 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.



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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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